



National Board Certification Support

**Mathematics
Early Adolescence**



Guide to National Board Certification

Guide to National Board Certification

Version 3.1

- Register online at www.nbpts.org/national-board-certification

*National Board Certification
Promotes Better Teaching,
Better Learning, Better Schools*

THIS PAGE INTENTIONALLY LEFT BLANK

The fees and other terms and conditions contained in this Guide are subject to change. Please visit the National Board's website to locate any changes or updates to applicable terms and conditions.

Table of Contents

Introduction	1
What is the National Board	1
Certification – An Overview	2
The Certification Process	3
The Components	3
How to Register and Select Components	4
Important Dates and Deadlines	4
Fields of Certification	5
Eligibility Prerequisites	6
Verifying Your Eligibility	7
Additional Prerequisite for World Languages Candidates	7
Fees	9
Withdrawals, Refunds, and Reinstatements	10
Scholarships and Rewards	12
Scholarships	12
Incentives and Fee Support	12
What Next?	13
Communications	14
Portfolio Submissions	14
Assessment Center Testing	14
Scoring	14
National Board Policies	15
Candidates with Disabilities	15
Confidentiality Guidelines	15
Policy on Denial or Revocation of Certification Based on Misconduct	16
Maintenance of Certification	20
Score Verification Service	20
Policy on Appeals of Denials of Certification Based on Scoring Decisions	20
Ethics	23
Language Accommodations	24
National Board Candidate Management System	25
Create an Account	25
Register for National Board Certification	26
Select Components	29
Contact Us	31

THIS PAGE INTENTIONALLY LEFT BLANK

Introduction

What is the National Board?

The National Board for Professional Teaching Standards (National Board) is a not-for-profit professional organization, created and governed by practicing teachers and their advocates. The founding mission of the National Board is to advance the quality of teaching and learning by

- maintaining high and rigorous standards for what accomplished teachers should know and be able to do;
- providing a national voluntary system certifying teachers who meet these standards; and
- advocating related education reforms to integrate National Board Certification into American education and to capitalize on the expertise of National Board Certified Teachers.

Recognized as the “gold standard” in teacher certification, the National Board believes higher standards for teachers means better learning for students.

Founded in 1987, the National Board began by engaging teachers in the development of standards for accomplished teaching and in the building of an assessment – National Board Certification – that validly and reliably identifies when a teacher meets those standards. Today, there are 25 certificate areas that span 16 content areas and four student developmental levels. The essence of the National Board’s vision of accomplished teaching is captured in the enduring document [What Teachers Should Know and Be Able to Do](#), at the heart of which are the Five Core Propositions:

1. Teachers are committed to students and their learning.
2. Teachers know the subjects they teach and how to teach those subjects to students.
3. Teachers are responsible for managing and monitoring student learning.
4. Teachers think systematically about their practice and learn from experience.
5. Teachers are members of learning communities.

Certification – An Overview

Over the last 30 years the National Board has advanced the teaching profession by establishing and maintaining the definitive standards of accomplished teaching and certifying more than 125,000 teachers across the country against those rigorous standards.

That number is significant but too small in a profession of more than three million practitioners. To make the dramatic improvements we seek in education for every student, National Board Certification needs to be the norm, not the exception. It also must be what the profession expects and is designed to support. To meet this goal, the National Board provides options for educators to pursue certification. While teachers can complete the entire certification process in one year, some may choose to do so over several years if that fits better with other demands on their time. The assessment is grouped into four components. With each of the four components costing \$475, the total cost of certification is \$1,900. Candidates can pay for and submit each component separately.

The National Board has revised its policy for maintaining certification. The National Board for Professional Teaching Standards' Maintenance of Certification (MOC) is a process currently being designed that will allow a National Board Certified Teacher (NBCT) to extend certification in five year increments. The process is being designed to ensure that Board certified teachers are continuing to grow professionally while maintaining a strong impact on student learning. MOC is replacing the current certification renewal process. This policy is aligned with the movement of 40 state licensure systems to a five-year renewal period, but also reflects efforts to make certification more affordable and efficient for all teachers, so that that it can become the norm in the profession. Visit our website at www.nbpts.org/national-board-certification/renewal for information regarding renewal and maintenance of certification.

Our principles remain the same. This National Board's Standards, the Five Core Propositions, and the Architecture of Accomplished Teaching have stood the test of time. This is an indication of the teaching profession's ability to create and maintain a body of knowledge that guides practice. And, just as when the first teachers earned Board certification in 1994, National Board Certification remains performance-based and peer-reviewed, with the same emphasis on content knowledge and commitment to student learning.

The Certification Process

The National Board Certification process is designed to collect standards-based evidence of accomplished practice. In all 25 certificate areas, candidates for National Board Certification must complete four components: three portfolio entries, submitted online, and a computer-based assessment, which is administered at a testing center.

- Computer-based assessment
 - Component 1: Content Knowledge
- Portfolio entries
 - Component 2: Differentiation in Instruction
 - Component 3: Teaching Practice and Learning Environment
 - Component 4: Effective and Reflective Practitioner

The Components

A general description of each component follows. The specific instructions will vary by certificate area, as will the standards assessed by each component.

Component 1: Content Knowledge

In this computer-based assessment, candidates demonstrate knowledge of and pedagogical practices for teaching their content area. Candidates must demonstrate knowledge of developmentally appropriate content, which is necessary for teaching across the full age range and ability level of the chosen certificate area. This is assessed through the completion of three constructed response items and 45 selected response items (SRIs) of which five are embedded field test items and do not contribute to the score. (Refer to the [Scoring Guide](#) for additional information). Candidates will have up to 30 minutes to complete each of the three constructed response items. The time allotted for the selected response section varies by certificate area, but will be no less than 60 minutes.

Component 2: Differentiation in Instruction

This classroom-based portfolio entry is primarily comprised of samples of student work and an accompanying written commentary. Candidates will submit selected work samples that demonstrate the students' growth over time and a written commentary that analyzes the candidate's instructional choices.

Component 3: Teaching Practice and Learning Environment

This is a classroom-based portfolio entry that requires video recordings of interactions between candidates and their students. Two written commentaries, in which the candidate describes, analyzes and reflects on their teaching and interactions will also be submitted. Both the videos and the written commentaries should demonstrate how candidates engage students and impact their learning.

Component 4: Effective and Reflective Practitioner

This portfolio entry requires candidates to gather information from a variety of sources about a class of students with whom they work and demonstrate their knowledge of assessments and assessment practices to effectively plan for and positively impact student learning. The portfolio will also require candidates to provide evidence of collaboration with families, the community, and colleagues and the candidate's contributions to learning communities to advance student growth.

How to Register and Select Components

- ✓ Take time to read all of the information provided in this guide prior to registering. Pay close attention to the eligibility prerequisites on page 6 and the Important Dates and Deadlines chart below.
- ✓ Determine if your state or district offers [fee support](#). To ensure that you qualify for what is offered, you should begin this process as early as possible.
- ✓ Register online at www.nbpts.org/sign-in. There is a \$75 nonrefundable and nontransferable registration fee that will be assessed to your account at the beginning of **each** assessment cycle and must be paid before you can select a component(s). Note that the registration fee is separate from the cost of each component.
- ✓ Select **only** the components you plan to complete during this assessment cycle. (You must complete this step even if you are receiving third-party financial support.) Refer to page 29 for instructions. Note: You must purchase a component to be considered an active candidate and to prevent your registration from being withdrawn.
- ✓ Submit payment in full by the payment deadline. Refer to the Fees chart on page 9 for associated costs.

You are expected to complete all components during the assessment cycle in which the component is purchased. If you do not purchase a component by February 28, your registration will be withdrawn. Refer to page 11 for additional details.

Important Dates and Deadlines

All dates and deadlines are subject to change.

The following chart is applicable to candidates submitting components for scoring during the 2019-20 assessment cycle.

2019-20 Important Dates and Deadlines	
Registration Window	April 15, 2019-February 28, 2020
Registration (includes payment of \$75 fee)	February 28, 2020
Component Selection (includes payment of component fees)	February 28, 2020
Change of Certificate and/or Specialty Area	February 28, 2020
Change of Component Selection	February 28, 2020
Withdrawal Deadline	February 28, 2020
ePortfolio Submission Window	April 1- May 13, 2020
Component 1: Content Knowledge Testing Window	March 1-June 15, 2020
Score Release	On or before December 31, 2020

The following chart is applicable to candidates submitting components for scoring during the 2020-21 assessment cycle.

2020-21 Important Dates and Deadlines	
Registration Window	April 15, 2020-February 28, 2021
Registration (includes payment of \$75 fee)	February 28, 2021

Component Selection (includes payment of component fees)	February 28, 2021
Change of Certificate and/or Specialty Area	February 28, 2021
Change of Component Selection	February 28, 2021
Withdrawal Deadline	February 28, 2021
ePortfolio Submission Window	April 1- mid-May 2021
Component 1: Content Knowledge Testing Window	March 1-June 15, 2021
Score Release	On or before December 31, 2021

Fields of Certification

The National Board offers standards, based on the [Five Core Propositions](#), in 25 certificate areas. A standards committee composed of a majority of Board-certified teachers is appointed for each certificate area. Other members of the committee may include experts in child development, teacher education and relevant disciplines. Standards committees recommend to the National Board the specific standards for each certificate area and advise those involved in developing the corresponding certification process.

The standards and the certificates are structured along two dimensions: the developmental level of students and the discipline. Candidates may choose either a generalist or a subject- specific certificate. View a list of the [available certificates](#) and the links to the [standards](#).

If you are a first-time candidate, you may change your certificate area prior to the established deadline through your National Board account by clicking "Service Requests" from the left-hand navigation menu. Log in to your National Board [account](#).

Completing National Board Certification may take anywhere from one to five years, depending on the approach you take. The following rules apply:

- You must attempt each of the four components within the first three years of your candidacy. Candidates who do not meet this requirement will have their candidacy terminated and will be required to start the entire certification process again as a first-time candidate.
- You have a five-year window to achieve certification. If you do not achieve certification within the five-year window, you may start the entire certification process again as a first-time candidate.
- Components must be completed during the assessment cycle in which they are purchased.
- There is no minimum or maximum score requirement to retake a component; you can elect to retake any component even if you have met the required minimum average section score(s). However, once you achieve National Board Certification, retake attempts are no longer available.
- You have up to two retake attempts for each component. For Component 1, you can elect to retake one or more of the three constructed response items/exercises and/or the selected response item part. Candidates have up to two retakes for each of the four parts of Component 1 at any time during the five-year window.
 - You can retake at any time during the five-year window and retake years do not have to be consecutive.
 - You can have a year when you take or retake no components; however, it does not extend your three-year window to initially attempt each of the four components or the five-year window within which certification can be achieved.

- The highest numeric score received from all attempts of an individual component will be used for total score calculation.

For additional information on retaking components refer to the [Scoring Guide: Understanding Your Scores](#), found on the National Board website.

Eligibility Prerequisites

To be eligible for National Board Certification, you must meet the education, employment, and licensure requirements described below. You must meet all eligibility requirements prior to starting the certification process. The rules for meeting eligibility for candidacy are described in this guide, but teaching situations across the country vary widely, and the rules may not address your particular circumstances. Please contact Customer Support for assistance if you are not sure whether you meet the eligibility requirements.

Do you possess a bachelor’s degree from an accredited institution?

An accredited institution is defined as one that is authorized or accepted by a state as fulfilling the state’s educational requirement for initial teaching licensure or school counseling licensure. A teacher or school counselor with a degree awarded by an institution outside the United States must submit proof that the degree is equivalent to a baccalaureate either by submitting transcripts to an organization that belongs to the National Association of Credential Evaluation Services (see www.naces.org/members.htm) or by submitting documentation to the National Board confirming that the state in which you teach or serve as a school counselor has accepted the degree for licensure requirements.

NOTE: Candidates registering for the Career and Technical Education certificate are required to hold a bachelor’s degree only if their state required one for their current license.

Have you completed three years of successful teaching in one or more early childhood, elementary, middle, or secondary schools? Applicants for ECYA/School Counseling must have completed three years successfully serving as a school counselor.

- The three years of employment experience must have been completed prior to starting the certification process.
- The employment must have occurred in one or more facilities located within the United States or at an institution accredited by one of 17 agencies recognized by the U.S. Secretary of Education. For a list of these agencies, access www2.ed.gov/admins/finaid/accred/accreditation_pg6.html. You should check individual agency websites for the most current contact information.

The following activities do not count toward the teaching or counseling prerequisite:

- time spent in administrative positions
- student teaching or teaching internships (or student practice or school counseling internships)
- employment as a teacher’s assistant
- employment under an intern or a similar teaching license
- teaching or school counseling done at the postsecondary level (e.g., community college or university/college); teachers or counselors with students who are over the age of 18 years must be teaching at the pre-K–12 level and in pre-K–12 settings (e.g., vocational classes in a high school setting), not in a community college or university/college. Teachers in administrative positions or those teaching in the adult learner community may pursue National Board Certification only if they are able to provide evidence of classroom teaching with pre-K–12 students within the timeframe specified in the component instructions.

Part-Time or Substitute Teaching

Teachers who have taught part time are eligible, provided that they have teaching employment that is the equivalent to three years of full-time teaching. Substitute teachers may count teaching time spent in long-term assignments toward the three years; substitute teaching that consisted of short-term or on-call assignments does not accrue toward the three years.

Part-Time School Counseling

If you serve as a school counselor part time, you are eligible to be an ECYA/School Counseling candidate, provided your counseling employment is equivalent to three years of full-time counseling.

Have you held a valid state teaching license (or met the licensure requirements established by your state for a “school counselor” and held that valid license if you applied for the ECYA/School Counseling certificate) for each of the three years of employment you verify? Employment under an intern or a similar teaching license does not meet the licensure prerequisite.

Your state teaching or school counseling license must have been unencumbered (e.g., not suspended or revoked) while you were employed as a teacher or school counselor. Teachers who are or were employed in a facility that requires a state-issued license must hold a valid license during their candidacy period. If part or all of the employment you are verifying was served at a facility in which a state teaching or school counseling license was not required (e.g., private school, parochial school, school outside the United States, or early childhood facility), you must submit proof of this information if requested.

Verifying Your Eligibility

During the registration process, first-time candidates will be required to attest that all eligibility prerequisites will be met before starting the certification process. By attesting to meeting these requirements, you represent the information is true and understand that if misrepresented or falsified, you will be withdrawn from the National Board Certification process or if granted, National Board Certification will be revoked.

National Board will routinely audit first-time candidate records and request proof of meeting these requirements. If you are randomly selected for an audit, by the audit deadline you must provide supporting documentation demonstrating you met the eligibility requirements. If you are deemed ineligible at any point, you will not receive a refund of the registration fee, any service fees, or the assessment fee for any completed components.

Audit

Candidates who are being audited for eligibility will be notified by the National Board via email within 30 days of registration*, and will then have until the registration deadline to return the appropriate verification forms located in the [Eligibility Verification Forms and Instructions](#). You will be notified of your eligibility status within 30 days of receipt of the completed verification forms. Candidates who do not return the appropriate forms and documentation within the specified time frame will be deemed ineligible and their registration will be withdrawn.

**Note: Candidates who register between April-August 1 will be audited in September.*

Additional Prerequisite for World Languages Candidates

The National Board for Professional Teaching Standards’ Board of Directors adopted a prerequisite policy for the World Languages certificate area. In addition to the National Board candidate eligibility prerequisites, to be eligible to achieve National Board Certification, World Languages candidates must meet the National Board World Languages Standards for language proficiency by

providing official American Council on the Teaching of Foreign Languages (ACTFL) Speaking and Writing Proficiency Certificates with a rating at or above the required level.

World Languages candidates must obtain ACTFL certificates with ratings of Advanced Low or higher on ACTFL's speaking proficiency and writing proficiency assessments. ACTFL certification of Advanced Low or higher from any version of the Oral Proficiency Interview (OPI) and Writing Proficiency Test (WPT), such as OPIc Advanced Level Check – Speaking and Advanced Level Check – Writing, will be accepted.

If you are registering for the World Languages certificate, you must:

- Obtain both ACTFL speaking and writing certificates no more than two years prior to the registration deadline of your initial year of candidacy (the year in which you complete your first component and did not withdraw) and no later than June 30 of the assessment cycle in which you complete initial testing on all four National Board components. The two certificates do not need to have the same issue date.
- Receive a rating of Advanced Low or higher on both ACTFL speaking and writing certificates.
- Submit copies of your current ACTFL certificates using the National Board [web form](#), located on the [Contact Us](#) page of the National Board website. Include your name, National Board candidate ID, and copies of both of your ACTFL certificates in the email. ACTFL certificates from both speaking and writing proficiency assessments must be submitted at the same time.

Obtaining Your ACTFL Certifications

The National Board, in partnership with ACTFL, will provide each candidate a discounted price of \$60.00 plus a \$35.00 remote proctoring fee to take or retake either the ACTFL Advanced Level Check – Speaking or ACTFL Advanced Level Check – Writing. Candidates should register for and schedule tests at <https://tms.languagetesting.com/IndividualSite/>.

Scheduling Your ACTFL Assessments

To register for an account, begin by [clicking here](#).

1. Select "Buy a Test" to buy a test and create an account.
2. Click on "Get Started"
3. Select "No" for "Are you testing for State Teacher Certification"
4. Enter Institution "National Board for Professional Teaching Standards – Individual"

If you already have an account, begin by [clicking here](#).

1. Enter Email Address and Password then click on "Login".
2. From your account, click on "Apply for an ACTFL Test" at the top of the screen under
3. "ACTFL TEST APPLICATION"
4. Click on "Get Started"
5. Select "No" for "Are you testing for State Teacher Certification"
6. Enter Institution "National Board for Professional Teaching Standards – Individual"

Follow the prompts to continue through the test registration system. After your test is scored, an electronic certificate will be emailed to you from Language Testing International. The certificate will display your rating on the ACTFL scale.

For assistance, contact Language Testing International at (800) 486-8444, ext. 751, or email customercare@languagetesting.com.

**Tests are available on demand, and are not technically scheduled with LTI, they are merely activated.*

Submitting Your ACTFL Certifications

After you have completed the National Board registration process and submitted payment of the nonrefundable and nontransferable \$75 fee, your evidence of language proficiency will be accepted.

Submit copies of your ACTFL certificates using the National Board [web form](#), located on the [Contact Us](#) page of the National Board website. You must include your name, National Board candidate ID, and copies of both of your ACTFL certificates. ACTFL certificates from both speaking and writing proficiency assessments must be submitted at the same time.

*Your ACTFL certificates are still valid for National Board Certification if you registered in:

- 2022-23 and have ACTFL certificates that were issued on or after February 28, 2022.
- 2022-23 and have ACTFL certificates that were issued on or after February 28 2021.
- 2021-22 and have ACTFL certificates that were issued on or after February 28, 2020.
- 2020-21 and have ACTFL certificates that were issued on or after February 28, 2019.

For additional information regarding the ACTFL requirement, please review our [EAYA World Languages Candidates Prerequisite FAQ](#).

Fees

This table lists the various fees applicable to National Board Certification. You are responsible for confirming receipt by the National Board of any payments. After your application has been processed, you can view the fees posted to your individual account at www.nbpts.org/sign-in.

Fee Type	Details	Amount	2019-20 Cycle Deadline	2020-21 Cycle Deadline
Registration fee*	Assessed to your account at the beginning of each assessment cycle. You will not be able to select a component without payment of this nonrefundable and nontransferable fee.	\$75	No later than February 28, 2020	No later than February 28, 2021
Component 2-4 Fee	Required for each attempt (initial and retake) of all portfolio components.	\$475 per component	February 28, 2020	February 28, 2021
Component 1 Fee (first attempt)	Required for the Content Knowledge assessment.	\$475	February 28, 2020	February 28, 2021

Component 1 Retake Fee	Required for each portion of Component 1 that you elect to retake.	\$125 per exercise and/or the Selected Response section	February 28, 2020	February 28, 2021
Component 1 Reauthorization Fee	If you miss your assessment center testing appointment or do not cancel within 24 hours, you must be reinstated before you can schedule a new appointment.	\$175	August 30, 2020	August 30, 2021
Returned Check Fee	This fee may be assessed if your personal check is returned for non-sufficient funds.	\$35	30 days after notification	30 days after notification

*Note: The Registration fee *must* be paid online via credit or debit card (Visa or MasterCard only), or via electronic check. This fee is required for each cycle in which you purchase a component(s).

The National Board reserves the right to change the fees stated above.

Withdrawals, Refunds, and Reinstatements

Component Withdrawal

During a given assessment cycle, you are expected to complete any components for which you register and pay. If you are unable to complete a component, you can withdraw the component through your National Board [account](#) prior to the withdrawal deadline by clicking "Service Requests" from the left-hand navigation menu. **Note:** The National Board does not offer a deferral service. If the withdrawal deadline has passed, we recommend that you consider completing your selected component(s) by the established deadlines as the assessment fees are nontransferable and even if you do not complete the component(s), the assessment year will count toward your five-year window to pursue certification.

Registration Withdrawal

If circumstances require you to end your candidacy, you can withdraw your entire registration. By withdrawing your entire registration, you are cancelling your candidacy and will be required to apply anew if you wish to continue pursuing certification at a later time.

- If you are a first-time candidate and have not completed a component(s) (i.e. you have not submitted a portfolio or tested at the assessment center), you can withdraw your registration through your National Board [account](#) prior to the withdrawal deadline by clicking "Service Requests" from the left-hand navigation menu. **Note:** You must first withdraw all currently purchased components before you will be permitted to withdraw your entire registration (see Component Withdrawal).
- If the withdrawal deadline has passed OR if you have completed one or more components in a previous cycle (i.e., you submitted a portfolio or tested at the assessment center), you can withdraw your registration by contacting our Customer Support team – this service is not available online.

Automatic Withdrawal

You must purchase at least one component to be considered an active candidate and must complete the initial attempt of all four components within the first three years of your candidacy.

- If you are a first-time candidate and do not purchase a component by the deadline, your registration will be automatically withdrawn and your candidacy will be cancelled. You will be required to apply anew if you wish to continue pursuing certification at a later time.
- If you are a returning candidate and do not purchase a component by the deadline, only your registration for the current cycle will be withdrawn. All previous registrations, component submissions, and scores will remain intact. Note: You can have a year when you take or retake no components; however, it does not extend your three-year window to initially attempt each of the four components or the five-year window within which certification can be achieved.
- If you are a returning candidate in your third year of candidacy and have not completed the initial attempt of all four components by the deadline, your registration will be withdrawn and your candidacy will be terminated. You will be required to apply anew if you wish to continue pursuing certification at a later time.

Withdrawal details:

Type of Withdrawal	Implications
Component Withdrawal	<p>Any component(s) not withdrawn prior to the withdrawal deadline must be completed during the assessment cycle in which the component(s) was purchased.</p> <p>Component(s) not withdrawn and not completed during the assessment cycle will count toward your five-year window to pursue certification and toward the three attempts allowed for each component.</p> <p>Assessment fees are nontransferable regardless of the circumstance.</p> <p>Please refer to page 12 for information about refunds.</p>
Registration Withdrawal	<p>All score(s) for component(s) completed during your five-year window to pursue certification will be forfeited.</p> <p>You will be required to apply anew as a first-time candidate for future attempts at National Board Certification. The following rules apply:</p> <ul style="list-style-type: none"> • If you previously submitted components for scoring and wish to register again in the <i>same</i> certificate area, you must wait until the next assessment cycle. • You can register again in a <i>different</i> certificate area without restriction. Refer to page 12 for the registration deadline.
Automatic Withdrawal	<p>You will be required to apply anew as a first-time candidate for future attempts at National Board Certification.</p> <p>Returning candidates: Only your registration for the current cycle will be withdrawn. All previous registrations, component submissions, and scores will remain intact.</p>

Note: The National Board may withhold your scores if you withdraw your registration or any components after the established deadline. Additionally, the National Board will continue to maintain sole ownership of all assessment-related materials you have submitted notwithstanding any such withdrawal on your part.

Refunds

If you withdraw prior to the withdrawal deadline, you are eligible for a refund, less the nonrefundable and nontransferable \$75 registration fee and any service fees. Refunds take 4-6 weeks to process.

Note: Funding received from Third-Party Payers (TPP) will be refunded to the TPP's National Board account. TPPs who wish to have refunds returned directly to their organization must request the refund in writing, using the [Third-Party Payer web form](#).

You are NOT eligible for a refund if the withdrawal deadline has passed.

Reinstatements

If you have withdrawn your entire registration and wish to be reinstated before the withdrawal deadline, please contact Customer Support at 1-800-22TEACH.

Exceptions

If you have encountered an unexpected hardship and have missed the withdrawal deadline, the National Board may consider offering an exception to published dates, deadlines, and policies such as a late withdrawal and refund; an extension to the portfolio submission window; an extension to the assessment center testing window; or other reasonable accommodation provided you are able to submit evidence of an insurmountable issue that will prevent you from completing the submission/testing requirements by the published deadlines.

The National Board will consider requests based on personal and/or family illness, military deployment, death of an immediate family member, adoption, visa rejection, and natural disaster. The following hardships do not qualify for an exception: financial hardship, changes in teaching assignment, work schedule conflicts, and failure to adhere to National Board policy.

For more information on this exception service, please contact our Customer Support team using the [National Board web form](#) or by calling 1-800-22TEACH.

Note: Submitting a request with supporting documentation does not guarantee an exception to policy. Although requests are considered on a case-by-case basis, exceptions are typically reserved for those impacted by unforeseen issues. All National Board candidates and Board Certified Teachers are required to express their understanding of National Board policies and deadlines during the registration process. Circumstances that predate National Board registration (or component purchase) may not be considered.

Scholarships and Rewards

Scholarships

Through the generosity of corporate and foundation partners, National Board is periodically able to offer a limited number of scholarships to help offset a portion of the fees for National Board Certification. Scholarships are allocated under the guidelines set by the donors. If you have selected a component and you meet the guidelines for receiving any remaining scholarship funds, you will be notified via email with required next steps. Please note that funding is limited and you should not rely on a scholarship to cover your component fees.

Incentives and Fee Support

Various states and local school districts have recognized the value of National Board Certification by offering salary increases, bonuses, or other incentives to educators who become NBCTs. There may also be some state and/or local funds available to support National Board Certification fees.

Before you register, contact your state or local program administrator for information about fees and incentives available in your state, as well as for any special application requirements that may apply. Many states set candidate application deadlines that differ from those set by the National Board, but the state application deadlines must be met for a candidate to be eligible for state fee support.

Learn more about how states and school districts support National Board Certification at www.nbpts.org/in-your-state.

What Next?

In our ongoing efforts to streamline the certification process, we use a paperless delivery system. Standards and other assessment documents are available at www.nbpts.org/national-board-certification/candidate-center. You'll need to check our website and your email regularly for updates and information.

Before registering

- Confirm you meet the eligibility prerequisites
- Review the National Board Standards, Scoring Guide, General Portfolio Instructions, and certificate-specific component instructions for your certificate area at www.nbpts.org/national-board-certification/candidate-center

Register and begin the process

- Go to www.nbpts.org/sign-in to register and pay the \$75 nonrefundable and nontransferable registration fee
- Select the components you'd like to complete during this assessment cycle; you must complete this step to be considered an active candidate and even if you are receiving third-party financial support. All fees must be paid prior to the payment deadline. Registrations with no component purchases will be withdrawn after the deadline.
- Prepare for portfolio submission and assessment center testing
 - Download the National Board Standards, component instructions, and scoring rubric for your certificate area at www.nbpts.org/national-board-certification/candidate-center/first-time-and-returning-candidate-resources/
 - Review the ePortfolio tips, tools, and tutorials at www.nbpts.org/national-board-certification/candidate-center/eportfolio-submission/
 - Review the assessment center policy documents, tutorials, and FAQs at www.nbpts.org/national-board-certification/candidate-center/assessment-center-testing/

Candidates with purchased components will:

- Receive an email prior to the start of the testing window authorizing them to schedule their appointment to complete the computer-based assessment (Component 1)
- Receive an email prior to the ePortfolio submission window providing their voucher codes and login information to upload and submit their portfolio entry(s)

Communications

Email will be our primary means of communication throughout your candidacy. Ensure you receive important updates and information by keeping your preferred* email address updated in your account and adding NBPTS.org and Pearson.com to your safe senders list so emails are not filtered to spam.

**Note: You are encouraged to use your personal email address as your primary email address.*

Portfolio Submissions

The three portfolio components must be submitted electronically for scoring using our online submission system. You will receive information about using the ePortfolio system during your candidacy. Prepare your submissions using the General Portfolio Instructions and certificate-specific component instructions online at www.nbpts.org/national-board-certification/candidate-center/first-time-and-returning-candidate-resources/.

Assessment Center Testing

Component 1: Content Knowledge is administered at computer-based testing centers across the United States. Once test centers are ready to accept appointments you will receive an email with instructions for scheduling your appointment. Prior to scheduling your appointment, you should review [Component 1: Content Knowledge Assessment Center Policy and Guidelines](#) for important information about the testing process and how to prepare for a computer-based assessment.

If you have a disability that necessitates an accommodation under the ADA for any component of the National Board Certification process, your request must be made using the form and instructions found in the [Request for Testing Accommodations Form and Instructions](#). You are urged to submit your request form as early as possible to allow 6–8 weeks for the National Board to review your request for accommodation(s) and make all appropriate arrangements for you to be able to attend the assessment center on your preferred testing date.

The deadline to submit your request for portfolio component accommodations is February 28. The deadline to submit your request for assessment center testing accommodations is April 1.

Scoring

National Board Certification is a standards-based assessment. Your score reflects the degree to which assessors were able to locate clear, consistent, and convincing evidence that you have met the National Board Standards specific to your certificate area. Scoring rubrics are available in the component instructions. When results are reported, you will receive a score for each component attempted, as well as information to assist you in making decisions on whether or not to retake.

You are required to demonstrate your teaching practice in your selected certificate area and with students in the stated age range for your certificate area. Failure to use an appropriate class or students in the stated age range will make your portfolio component unscorable.

The reliability of scores assigned to candidate performance is supported by maintaining the standardized training and scoring protocols that National Board has developed and refined since the certification program was first offered. For this reason, all scoring events for portfolio components and constructed response items occur under the direction of experienced trainers and content specialists who are tasked with ensuring that the integrity of the process is maintained.

One or more assessors in each certificate area score each candidate's portfolio responses. All Component 1: Content Knowledge constructed response items are scored by two independent assessors. The selected response items in Component 1: Content Knowledge are machine-scored. For detailed information on the scoring process, the scores required to achieve National Board Certification, and the score report, review the [Scoring Guide: Understanding Your Scores](#), located on the National Board website.

National Board Policies

The National Board makes every effort to ensure that the National Board Certification process is fair for all applicants. National Board is committed to examining and refining its policies continuously in ways that benefit all candidates and enhance its delivery of efficient and high-quality services. The following policies (in italics, below) have been adopted by the Board of Directors and are applicable to National Board Certification.

NOTE: The National Board's policies and procedures relating to assessment and certification, as set forth in this Guide and in the sources referenced in this Guide, are subject to change at the sole discretion of National Board for Professional Teaching Standards, as it deems necessary for the betterment of the program.

Candidates with Disabilities

It is the policy of the National Board for Professional Teaching Standards to comply with the *Americans with Disabilities Act of 1990 (ADA)* regulations governing both facilities and administration. The National Board program is committed to serving candidates with disabilities by providing services and reasonable accommodations that are appropriate given the purpose of the assessments. If you have a disability that necessitates an accommodation under the ADA, your request must be made using the [Request for Testing Accommodations Form and Instructions](#).

You are urged to submit your request form as early as possible to allow 6–8 weeks for review. All requests for accommodations must be approved in accordance with National Board policies and procedures. The deadline to submit your request for portfolio components is February 28. The deadline to submit your request for assessment center testing is April 1.

Confidentiality Guidelines

- I.*** *The National Board for Professional Teaching Standards will take precautions so that all information about a candidate's candidacy and performance is strictly confidential. The names, school districts, certificate areas, and certification expiration dates of National Board Certified Teachers will be published and NBCT mailing addresses will be shared with public officials representing NBCTs' jurisdictions. Candidate scores will not be published or released by the National Board without prior written consent. The National Board will release certification decision information only to the candidate seeking National Board Certification unless the National Board receives written authorization from the candidate.*
- II.*** *Any candidate who accepts full or partial payment of the assessment fee by a third-party agency is deemed to have given permission to the National Board for release of the certification decision to that third-party agency.*
- III.*** *During the application process, the National Board will collect information necessary to communicate with candidates, to verify that candidates have met eligibility requirements, and to conduct research projects.*
- IV.*** *On the application, the National Board offers potential candidates the option of having limited candidate information released to third-party agencies that may provide incentives, supports, and rewards for teachers/school counselors seeking National Board Certification. Such agencies may include national, state, and local professional and disciplinary associations whether or not the candidate is a member of such associations, state education agencies, county education agencies, local school districts, and community foundations. Candidates who do not wish to have their names released for this purpose can indicate this*

preference on the application form; however, doing so may result in missed opportunities for candidacy funding support. Candidates who accept full or partial funding from a third-party agency are deemed to have authorized permission for release of information to that third-party agency, regardless of the preference indicated on their application.

- V.** Upon full or partial payment of a candidate's assessment fee by a third-party agency, the National Board will provide the candidate's completion and certification status to the third-party agency. Neither total scores nor individual exercise scores will be released to third parties.
- VI.** The National Board will establish procedures requiring that all employees, contractors, assessors, or administrators who have access to information about the identity or performance of candidates understand the strictly confidential nature of this information.
- VII.** National Board will take precautions to assure that written and electronic confidential information is reasonably protected.
- VIII.** The National Board will assure that when research data are shared, any information about the identity or performance of individual candidates will be concealed.

Policy on Denial or Revocation of Certification Based on Misconduct

Revised November 2017

The National Board for Professional Teaching Standards (NBPTS) reserves the right to deny certification to a candidate or to revoke NBPTS certification of a teacher for certain forms of misconduct. This policy sets forth the type of misconduct that can result in a denial or revocation of certification, and describes applicable procedures.

The purpose of this policy is to maintain the integrity of National Board Certification and to prevent any candidate from gaining an unfair advantage over others. It applies to all candidates for National Board Certification and to all teachers who hold a certificate from NBPTS as a National Board Certified Teacher.

I. Misconduct Warranting Denial or Revocation of Certification

Certification may be denied or revoked for any candidate or certificate-holder who, in the sole judgment of NBPTS:

- A. Has knowingly misrepresented or falsified material information in connection with an application, credentials, assessment documentation, or other information submitted to NBPTS or any of its agents; or
- B. Has knowingly misrepresented or falsified material information regarding his or her National Board Certification; or
- C. Has knowingly engaged in inappropriate conduct in connection with the certification process or renewal of the certification process, including but not limited to:
 - 1. Violation of confidentiality obligations imposed under applicable NBPTS policies, including sharing, publishing, electronically distributing, or otherwise disclosing or reproducing secure assessment materials or information;
 - 2. Obtaining improper access to secure assessment materials or information prior to the administration of an assessment;
 - 3. Violation of NBPTS policies that describe or limit permissible collaboration with others;
 - 4. Noncompliance with other assessment policies, procedures, or instructions;

5. *Any other form of misconduct that might compromise the integrity of the certification process; or*
- D. *Has been convicted of a felony, has had a teaching license denied, suspended or revoked, or, in the case of an unlicensed teacher, has been fired or suspended, where the conduct leading to such an outcome has involved:*
 1. *Child abuse;*
 2. *Job-related crimes;*
 3. *Violent crimes against persons; or*
 4. *Other conduct of similar severity that NBPTS determines is inconsistent with the standards required of a National Board Certified Teacher.*

Any denial or revocation of certification under this policy shall be subject to the following procedures.

II. Initial Investigation

- A. *A three-person Initial Review Panel (IRP) will investigate instances of possible misconduct that fall within the scope of this policy. Based upon information gathered in that investigation, the IRP will decide whether certification should be denied or revoked based on the criteria in the preceding section. The decision must be supported by at least two of the three panel members, all of whom shall be current full-time employees of NBPTS.*
- B. *If the IRP concludes that misconduct has occurred, it may impose appropriate sanctions, including but not limited to:*
 1. *Denial of certification and withholding of score report, with leave to retake one or more assessment exercises;*
 2. *Denial of certification and withholding of score report, with exclusion from future participation in the assessment program (permanent or for a specified period of time); or*
 3. *Revocation of certification.*
- C. *A member of the IRP shall not participate in any decision where either the member or the President of the NBPTS determines that a disinterested third party could reasonably question whether the member is able to act fairly and impartially. If a member of the IRP cannot participate in a given initial review for any reason, a replacement member will be selected who is also be qualified to serve on the IRP.*
- D. *The IRP will notify in writing any candidate or teacher who is being investigated for possible misconduct. The notice will provide a general description of the conduct that is the subject of the investigation and will ask the candidate or teacher to provide a written response. Candidates will be given at least fifteen (15) calendar days to provide their responses.*
- E. *The IRP may request additional information from a candidate or teacher who is being investigated for possible misconduct. Candidates and teachers shall cooperate in good faith and on a timely basis with any such request. The IRP may also ask NBPTS staff to provide information that the IRP believes may be relevant to its investigation.*
- F. *All decisions by the IRP will be based upon the written record. The IRP will provide a*

written decision to the candidate or teacher that includes a general description of the IRP's findings and the information that the IRP relied upon in making those findings. The decision will also state what sanctions, if any, the IRP has imposed in light of its findings.

- G. If a candidate or teacher does not request further review of an IRP decision pursuant to the appeal process provided below, the findings and decision of the IRP will constitute the final decision of the NBPTS.

III. Appellate Review

- A. A candidate or teacher may appeal a decision by the IRP by submitting a written request for further review and payment of the required fee. The appeal should be submitted to NBPTS and clearly marked "ATTENTION: CERTIFICATION APPEALS."
- B. All appeals must be submitted within twenty (20) calendar days of the candidate's or teacher's receipt of the IRP's written decision. If an appeal is not timely, it will not be considered and the decision of the IRP will be final.
- C. In order to have a decision by the IRP overturned, a candidate must provide substantial evidence that the IRP made a clear error in its fact findings. Candidates should be as specific as possible in describing any such alleged error and should provide whatever supporting documentation they would like to submit.
- D. Appeals will be decided by an Appellate Review Panel (ARP). The ARP shall consist of three persons, each of whom shall be appointed by the Certification Council of NBPTS to serve three (3)-year terms and shall not serve more than two (2) consecutive three (3)-year terms. All ARP members shall be "teaching professionals" defined as persons who spend half or more of their work time in direct contact with PreK - 12 children in a teaching capacity, or in serving as mentors or coaches to teachers and their students in an instructional setting. The majority of the ARP members shall be National Board Certified Teachers. No panel member may serve more than two consecutive three-year terms. A member of the ARP may resign at any time by notifying the Certification Council of NBPTS in writing. Such resignation shall take effect at the time specified by the resigning member, or, if no time is specified, on receipt by the Certification Council of the notice of resignation.
- E. Action by the ARP shall be by majority vote, with at least two supporting votes required for any decision. The ARP may meet in person, by telephone, or by videoconferencing.
- F. A member of the ARP shall not participate in any decision where either the member or the Certification Council of NBPTS determines that a disinterested third party could reasonably question whether the member is able to act fairly and impartially. If one or more members of the ARP cannot participate in a given appeal, the Certification Council shall appoint one or more persons on an interim basis if necessary for the appeal to be decided, provided that any replacement member must also be qualified to serve on the ARP.
- G. The ARP may request additional information from a candidate or teacher who is appealing a decision by the IRP. Candidates and teachers shall cooperate in good faith and on a timely basis with any such request. The ARP may also ask NBPTS staff to provide information that the ARP believes may be relevant to an appeal.
- H. In almost all instances, the ARP will decide the appeal on the basis of the written record. The ARP may, in its sole discretion, schedule an oral hearing if it believes that a hearing is warranted, to be held at a time and place to be determined by the ARP.
- I. Absent unusual circumstances, the ARP will decide all appeals within ninety (90) calendar days after it receives a candidate's appeal letter. Requests by the ARP for

additional information might result in a longer decision period.

- J. *After reviewing a candidate's appeal letter, supporting documentation, and any other information that the ARP deems relevant to the appeal, and conducting any hearing that the ARP believes to be warranted, the ARP shall provide the candidate with written notice of the ARP's decision. If the ARP overturns the decision of the IRP in any respect, the written notice shall so state and shall inform the candidate of the ARP's findings and the relief that will be provided.*
- K. *If the ARP overturns the IRP in any respect, it may provide the following relief:*
 - 1. *Withdrawal of the denial or revocation of certification; or*
 - 2. *Removal of any limitations on the individual's right to retake one or more assessments or to participate prospectively in NBPTS certification programs; or*
 - 3. *Such other relief as the ARP deems to be warranted.*
- L. *If the ARP affirms the decision of the IRP, the written notice shall so state and shall briefly describe the information considered by the ARP and the reasons for its findings.*
- M. *The decision of the ARP shall constitute the final decision of NBPTS and shall not be subject to any further internal appeal or judicial challenge by the candidate.*
- N. *Upon the conclusion of any appeal, or the expiration of the appeal period, the name of any teacher found to have engaged in misconduct will be removed from all NBPTS official listings of National Board Certified Teachers.*

IV. Filing Fee

- A. *NBPTS shall establish a filing fee that must be paid by candidates or teachers who appeal a decision by the IRP. The amount of the filing fee will be published on the NBPTS website or otherwise made available to candidates. NBPTS may revise the amount of that fee from time to time.*
- B. *If the ARP concludes that a candidate has substantially prevailed in appealing a decision by the IRP, the filing fee paid by the candidate or teacher will be reimbursed.*

V. Notice to Legitimately Interested Third Parties

- A. *In the interest of protecting the integrity of the teaching profession and National Board Certification, NBPTS reserves the right, at its sole discretion, to provide legitimately interested third parties with the following information regarding teachers whose certification has been revoked by NBPTS:*
 - 1. *Teacher name, last-known address and last-known school*
 - 2. *Action taken by NBPTS, and date of that action*

VI. Reports to NBPTS Board

The NBPTS Board of Directors shall be informed of all instances in which a certification is denied or revoked under this policy.

Maintenance of Certification

National Board Certified Teachers have requested a simplified and less expensive way to maintain National Board Certification that, like the certification renewal process, allows them to reflect on their practice and professional growth.

Hearing those requests, the National Board for Professional Teaching Standards' new Maintenance of Certification (MOC) process is being designed to ensure that Board-certified teachers are continuing to grow professionally while maintaining a strong impact on student learning. As in other professions, Maintenance of Certification allows National Board Certified Teachers (NBCTs) to demonstrate to colleagues, the public, students and themselves that they continue to meet high standards of accomplished practice throughout their careers. The goal of MOC is to ensure all National Board Certified Teachers can continue to experience professional learning and growth as a practitioner while maintaining a focus on student learning.

The new Maintenance of Certification process requires Board-certified teachers to demonstrate their knowledge and skills every five years. This change is designed to make ongoing certification efficient and professionally meaningful, so it can become the norm in the teaching profession. And, the five year timeline is aligned with the majority of state licensure systems.

For more information on the latest MOC developments and commonly asked questions and their answers, go to the [Maintenance of Certification Questions & Answers](#). This Guide will be updated with additional information as it becomes available.

Score Verification Service

The Score Verification Service offers candidates the option to have one or more scores verified. A fee of \$75 per score verified, which can be paid by credit card online, is charged to the candidate for this service. No explanation of the request is required and a response is guaranteed within 30 days. In the past, many candidates who filed an appeal could have first verified the accuracy of their results at a lower cost through score verification. The National Board strongly encourages candidates to make use of the Score Verification Service before deciding if an appeal is in their best interest.

Score Verification Service is only available for 30 days after score release. For more information on the Score Verification Service, please contact our Customer Support team at 1-800-22TEACH.

Policy on Appeals of Denials of Certification Based on Scoring Decisions

Revised November 2017

I. Background

Candidates may appeal a denial of certification that results from the scores they achieved on their portfolio submissions and their assessments. This policy governs such appeals.

NBPTS strongly encourages candidates to use the Score Verification Service prior to filing an appeal from a scoring-related denial of certification. In the past, many candidates could have verified the accuracy of their results more efficiently by using this service.

Because the cost to file an appeal is significant, NBPTS also believes it is important to disclose to candidates that most candidates who file an appeal do not establish good cause as required by and defined in this policy. To avoid expending time and money unnecessarily, candidates are encouraged to carefully consider how good cause is defined under this policy when deciding whether it is in their best interest to file an appeal.

II. Grounds for Appealing

- A. *It is the policy of NBPTS to alter a report of scores relating to a candidate's portfolio*

submission or performance on an assessment only where the candidate has demonstrated **good cause** as to why relief is warranted.

- B. To establish good cause to support an appeal, a candidate must identify some particular circumstance that makes it fundamentally unfair for NBPTS to maintain the scoring decision(s) previously released to the candidate. The circumstance must consist of an event or occurrence that (i) is **beyond the control of the candidate**; (ii) **does not involve illness, anxiety or other similar personal circumstances** that the candidate experienced while teaching or testing; and (iii) **affected the candidate's performance** on the applicable assessment **or precluded the candidate from meeting an applicable deadline** for submitting assessment material for evaluation.

The type of circumstances that will meet the required showing are extremely limited. Examples may include an event at a testing center that significantly disrupts administration of the assessment, or a candidate's inability to submit in a timely manner all required components of a portfolio entry because of the extended unavailability of the NBPTS ePortfolio system.

- C. NBPTS carefully reviews all assessment materials, the scoring process, and applicable performance standards to assure itself that they are valid and reasonably reliable means of arriving at certification and scoring decisions. Accordingly, for purposes of this policy, a candidate will **not** establish good cause to support a request for reconsideration of a scoring decision by stating, for example, that:
1. The candidate or others believe that one or more of the exercise scores received by the candidate do not accurately reflect the quality of the candidate's performance or teaching abilities; or
 2. The candidate or others disagree with, seek an exception from, or challenge a performance standard that has been adopted by the NBPTS, the portfolio instructions, or scoring processes; or
 3. The candidate failed to understand or follow NBPTS policies or procedures (as outlined in the Guide to National Board Certification and the online Assessment Center Policy and Guidelines), failed to understand or follow an instruction in the assessment materials, failed to submit documents or to do so in a timely manner, or failed to perform in a manner that best presented the candidate's qualifications for certification. Please note this includes, but is not limited to, a candidate's failure to report test center problems within seven days after a testing appointment.
- D. There are no circumstances under which a mere disagreement with the score given to a portfolio entry or assessment center exercise on an assessment will constitute good cause or result in the award of additional "points."
- E. This policy applies regardless of how close a candidate comes to achieving certification.

III. Procedure and Timeline for Filing an Appeal

- A. Candidates may appeal a scoring decision by submitting a letter of appeal in accordance with the following instructions:
- B. Submit a letter by regular mail or commercial delivery service with the filing fee to NBPTS, ATTENTION: CERTIFICATION APPEALS.
- C. Candidates must include in the letter all pertinent details supporting the appeal, as well as any supporting documentation. The letter and any supporting documentation should be specific and only materials that are directly relevant to showing "good cause," as defined in this policy, should be submitted

- D. *The letter of appeal must be postmarked within 60 calendar days of the date that is printed on the score report, and it must be received by NBPTS within a reasonable time of being postmarked.*
- E. *A candidate can only appeal a scoring decision within the 60-day period following the release of the decision that is the subject of the appeal. Appeals from scoring decisions rendered in former score release periods will not be considered.*
- F. *If a candidate has not submitted a timely appeal, the scoring decisions will be final and not subject to appeal.*

IV. Resolution of Appeals

- A. *Appeals from score-related certification decisions will be decided by an Appellate Review Panel (ARP).*
- B. *The ARP shall consist of three persons, each of whom shall be appointed by the Certification Council of NBPTS to serve three (3)-year terms and shall not serve more than two (2) consecutive three (3)-year terms. All ARP members shall be "teaching professionals" defined as persons who spend half or more of their work time in direct contact with PreK - 12 children in a teaching capacity, or in serving as mentors or coaches to teachers and their students in an instructional setting. The majority of the ARP members shall be National Board Certified Teachers. No panel member may serve more than two consecutive three-year terms. A member of the ARP may resign at any time by notifying the Certification Council of NBPTS in writing. Such resignation shall take effect at the time specified by the resigning member, or, if no time is specified, on receipt by the Certification Council of the notice of resignation.*
- C. *Action by the ARP shall be by majority vote, with at least two supporting votes required for any decision by the ARP. The ARP may meet in person, by telephone, or by videoconferencing.*
- D. *A member of the ARP shall not participate in any decision where either the member or the Certification Council of NBPTS determines that a disinterested third party could reasonably question whether the member is able to act fairly and impartially. If one or more members of the ARP cannot participate in a given appeal, the Certification Council shall appoint one or more persons on an interim basis if necessary for the appeal to be decided, provided that any replacement member must also be qualified to serve on the ARP.*
- E. *The ARP may request additional information from a candidate who is appealing a scoring decision. Candidates shall cooperate in good faith and on a timely basis with any such request. The ARP may also ask NBPTS staff to provide information that the ARP believes may be relevant to an appeal.*
- F. *In almost all instances, the ARP will decide the appeal on the basis of the written record. The ARP may, in its sole discretion, schedule an oral hearing if it believes that a hearing is warranted, to be held at a time and place to be determined by the ARP.*
- G. *Absent unusual circumstances, the ARP will decide all appeals within ninety (90) calendar days after it receives a candidate's appeal letter. Requests by the ARP for additional information might result in a longer decision period.*
- H. *After reviewing a candidate's appeal letter, supporting documentation, and any other information that the ARP deems relevant to the appeal, and conducting any hearing that the ARP believes to be warranted, the ARP shall provide the candidate with written notice of the ARP's decision. If the ARP finds that the candidate has shown good cause for the appeal, the written notice shall so state and shall inform the candidate of the*

relief that will be provided. If the ARP finds that good cause has not been shown, the written notice shall so state and shall briefly describe the information considered by the ARP and the reasons for its finding.

- I. *If the ARP concludes that an appellant has shown good cause, it may provide the following relief, subject to such conditions and time limits as the ARP deems reasonable:*
 1. *An opportunity to re-take an assessment;*
 2. *An extension of a candidate's eligibility period for taking an assessment or submitting portfolio content;*
 3. *An opportunity to submit additional materials; and/or*
 4. *Such other relief as the ARP deems to be necessary to avoid fundamental unfairness to the candidate.*

If the ARP makes a finding that good cause exists to reconsider a scoring decision, the ARP will specify whether that reconsideration should be based on: (1) the documents and performances originally provided by the candidate during the assessment process; (2) the candidate's original documents and performances along with supplemental documents or performances; or (3) new or revised documents or performances to be provided by the candidate. The ARP also shall specify such reasonable conditions or time limits as may be necessary to facilitate an efficient and reasonable reconsideration of the scoring decision in question.

- J. *A decision of the ARP shall constitute the final decision of NBPTS and shall not be subject to any further internal appeal or judicial challenge by the candidate.*

V. Filing Fee

- A. *NBPTS shall establish a filing fee that must be paid by candidates who appeal a scoring decision under this policy. The amount of that filing fee will be published on the NBPTS website or otherwise made available to candidates. NBPTS may revise the amount of that fee from time to time.*
- B. *If the ARP concludes that a candidate has substantially prevailed in appealing a scoring decision, the filing fee paid by the candidate will be reimbursed.*

VI. Reports to NBPTS Board

The NBPTS Board of Directors shall be informed of all instances in which a candidate has substantially prevailed in appealing a scoring decision.

Ethics

Candidates who work as members of a team of teachers or school counselors have an excellent opportunity to collaborate with their peers. However, candidates must adhere to the Ethics and Collaboration guidelines provided in the General Portfolio Instructions. You must submit responses that are unique to your teaching context, feature teaching that you did and work that you oversaw.

Assessors who score(d) portfolios for the National Board may be willing to provide supportive and constructive feedback to you regarding your performance before you submit your portfolio entries for scoring. It would be inappropriate, however, for any person who has served as a member of the National Board scoring staff to make a judgment about the score that a performance should be given if reviewed outside of a formal scoring session. National Board assessors sign a statement agreeing that they will not give their opinions about the potential score that might be assigned to a

performance when reviewing candidate performances outside of the scoring session.

The National Board does not tolerate cheating or confidentiality breaches of any type. Help protect the integrity of National Board Certification. Immediately report breaches of security, misconduct, and/or unethical practice by calling National Board at 1-800-22TEACH (83224).

For important information regarding adherence to ethical behavior that is expected of all National Board candidates and National Board Certified Teachers, see the [National Board Guidelines for Ethical Candidate Support](#).

Language Accommodations

We recognize that languages other than English are frequently used in the classroom; therefore, for the following circumstances, the accommodations described are allowed.

- **Student Work Samples and Video Evidence with Brief Expressions or Phrases in a Language Other than English.** Student work samples and video evidence may include brief expressions or phrases in a language other than English. The inclusion of such expressions or phrases must be limited because assessors do not have fluency in languages other than English. If expressions or phrases in a language other than English that are important for an assessor to understand are included, you must include brief explanations of these expressions or phrases in the Written Commentary.
- **Student Work Samples and Video Evidence in a Language Other than English.** If you are submitting a student work sample, video evidence, or other type of evidence (e.g., an assessment) in a language other than English, you must include a written English translation for the work sample, video evidence, or other type of evidence in the file with the artifact. For a translation of a video, include the translation at the end of the Written Commentary. Include any necessary student identifiers (but do not include students' last names). Note that the pages of your translation do not count toward your page totals.

If you do not include a translation or explanation, language other than English will not be considered in the scoring of your submission (except brief non-English terms or phrases commonly used by English speakers). Your submission will be scored based on the portions in English and the translations/explanations you provide. It will be scored as zero if the scorable portions do not merit a score of 1 or higher. However, failure to provide a translation or to properly label your translated submission will mean that your response will not be scored.

Your Written Commentary must be written entirely in English in order to be considered for scoring.

Exceptions

- **English Language Arts.** Candidates seeking certification in this area must submit student work samples and video evidence in English.
- **World Languages.** Assessors for this certificate area are fluent in English and the target language; therefore translations are only required for documentation that is written in a language other than English or the target language.

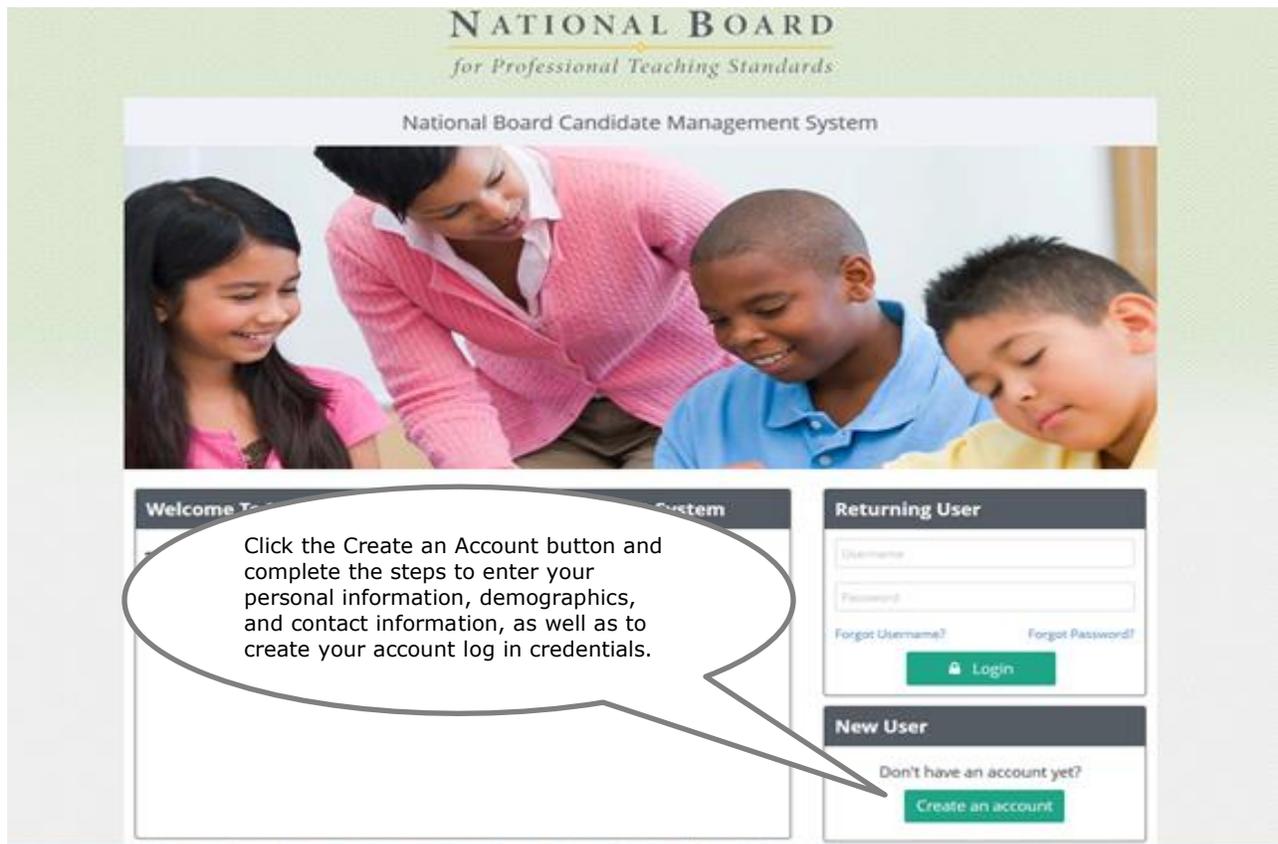
If the majority of your instruction takes place with students for whom English is a new language, the appropriate National Board certificate may be either the Early and Middle Childhood/English as a New Language certificate or the Early Adolescence through Young Adulthood/English as a New Language certificate. To help you make the decision whether to pursue certification in one of the available certificate areas, refer to [Choosing the Right Certificate](#) and discuss your teaching situation with professional colleagues, your school faculty, a National Board Certified Teacher, or your faculty support group. For more information on submissions in languages other than English, see the component instructions for your certificate.

National Board Candidate Management System

Create an Account

The *National Board Candidate Management System* (NBCMS) is where you will create a National Board account, register for National Board Certification, and select and pay for components. You can log into your account at any time to review your status, view payment history, and manage your personal contact information. NBCMS is accessible from the National Board’s website at www.nbpts.org/sign-in.

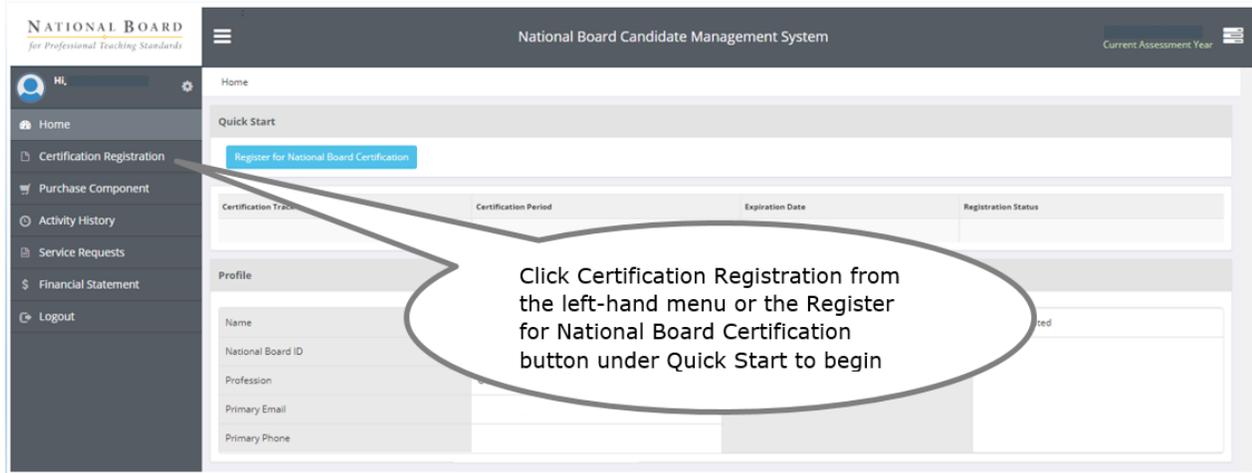
The first step in the registration process is creating an account. Click the Create an Account button and complete the steps to enter your personal information, demographics, and contact information, as well as to create your account log in credentials. **Note: In order to be considered an active candidate for National Board Certification, you must also complete the steps to register AND purchase components.**



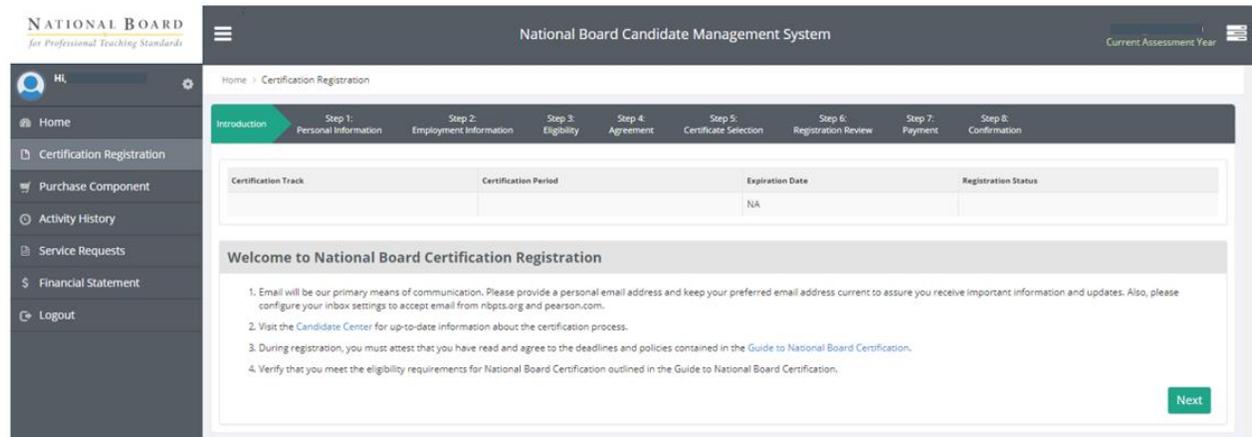
Register for National Board Certification

First-time Candidates

Log in to your account at www.nbptsorg/sign-in. Click Certification Registration from the left-hand menu or the Register for National Board Certification button under Quick Start to begin the registration process.



The registration process consists of eight steps, ending with the payment of the \$75 nonrefundable and nontransferable Registration fee. An overview of these steps is provided below.



Step 1: Personal Information

Step one of certification registration requires you to complete the personal information fields, which are divided into six subcategories. Subcategories include: Name, Demographic, Address, Email, Phone, and Education Information.

- Under Education Information, you can enter your Undergraduate and Graduate degrees, as well as specify where you earned your initial teaching license.

Step 2: Employment Information

Employment information is gathered based on School Type (public or private), School State, School District, School, Grade Level Taught, Years of Teaching Experience, and Union Affiliation. To provide consistency in capturing information, dropdown menus are provided. If your employment information is not listed in the dropdown menu, you may select "Other" and manually input your information. Note: After completing all required fields, you must click "Save" before you can move on to the next step.

Step 3: Eligibility

Before proceeding to step four, you must confirm you meet the eligibility prerequisites outlined on pages 6-7 of this Guide.

Step 4: Agreement

The Agreement tab requires you to select 'yes' or 'no' to the following policies:

- I hereby confirm that I have carefully read the *Guide to National Board Certification* (the "Guide"). I agree to comply with and be bound by all policies and procedures set forth in the *Guide*, and in the sources referenced in the Guide, including but not limited to those relating to confidentiality, deadlines and withdrawal.
- I certify that the information provided is true and correct to the best of my knowledge and belief.
- I understand and agree to the terms of the Certification Denial or Revocation Policy that describes areas of misconduct and consequences of unethical practices.
- I agree that in the event I achieve National Board Certification, the National Board will publish my name in the NBCT directory, along with my state, city, school district, year certified, and certification expiration date.
- I understand that the \$75 Registration fee is nonrefundable and nontransferable, regardless of circumstance.

The Agreement tab also allows you to elect to have your name released to third-party agencies that may provide incentives, support and rewards for teachers seeking National Board Certification. **This election is necessary if you wish to request funding from a third party. Note: You MUST select 'yes' to all policies in order to continue with the registration process.**

Step 5: Certificate Selection

Here you will select your Certificate Area, Development Level, and Specialty Area (if applicable). You are encouraged to review the [National Board Standards](#), the [Choosing the Right Certificate](#), and certificate-specific component instructions located at www.nbpts.org/national-board-certification/candidate-center/first-time-and-returning-candidate-resources/ before making your selection.

Step 6: Registration Review

This step allows you to review and edit the information you've entered. Note: All required fields must be completed in order to proceed to the next step.

Step 7: Payment

You may pay the \$75 Registration fee by credit or debit card or by electronic check. **Note: Your registration is not complete until this payment has been made.**

Step 8: Confirmation

Upon payment of the Registration fee, you will be sent an email confirmation with receipt of payment. **Note: Additional steps are required to select and purchase your components.**

Returning Candidates

If you completed the certification process during a previous assessment cycle, you may register during the current assessment cycle and select a new component(s) or retake a previously completed component(s) by logging in to your account at www.nbpts.org/sign-in. **Note: The option to retake a component will be available after score release of the cycle year in which it was originally completed.**

The \$75 nonrefundable and nontransferable Registration fee is required for each cycle in which you plan to purchase and submit components. In order to register for the current assessment cycle, you must first pay this fee. Note: If you are not planning to pursue components in the current assessment cycle, you are not required to pay the \$75 registration fee.

In April each year, your Home page will automatically default to the current assessment cycle. To view information from a previous cycle, click the button located on the upper right of the screen. To register for the current assessment cycle, click the link located under Notifications. The Registration fee can be paid via credit card or electronic check. Once your registration is complete, follow the steps to select and purchase a component(s).

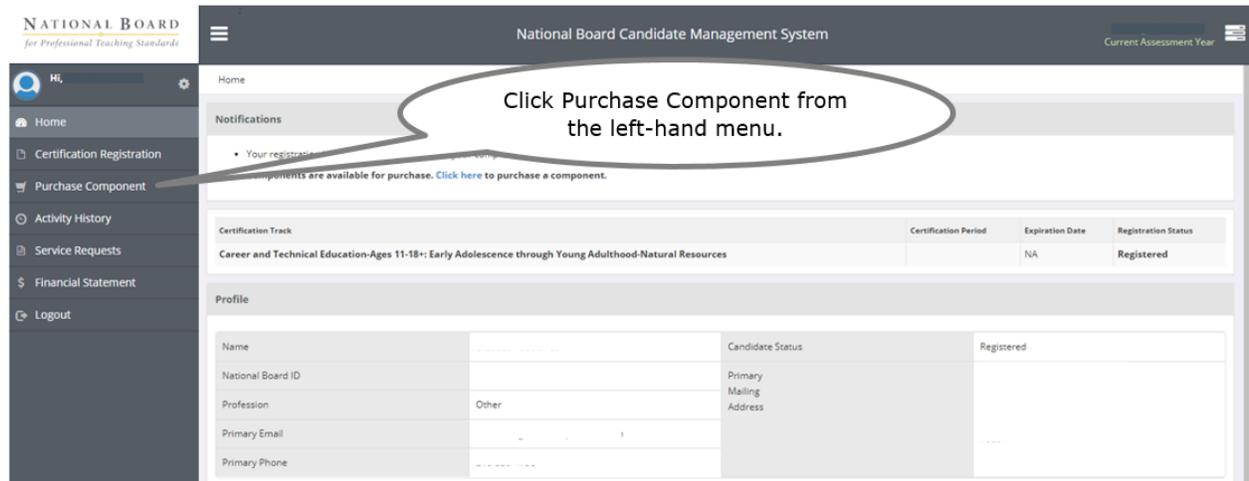
The screenshot shows the National Board Candidate Management System interface. A callout box highlights a button in the top right corner of the page, which is used to view information from a previous assessment cycle. The interface includes a navigation menu on the left, a header with the National Board logo, and a main content area with sections for Notifications, Certification Track, and Profile.

Certification Track		Expiration Date	Registration Status
Art-Ages 11-18: Early Adolescence through Young Adulthood		NA	Registered

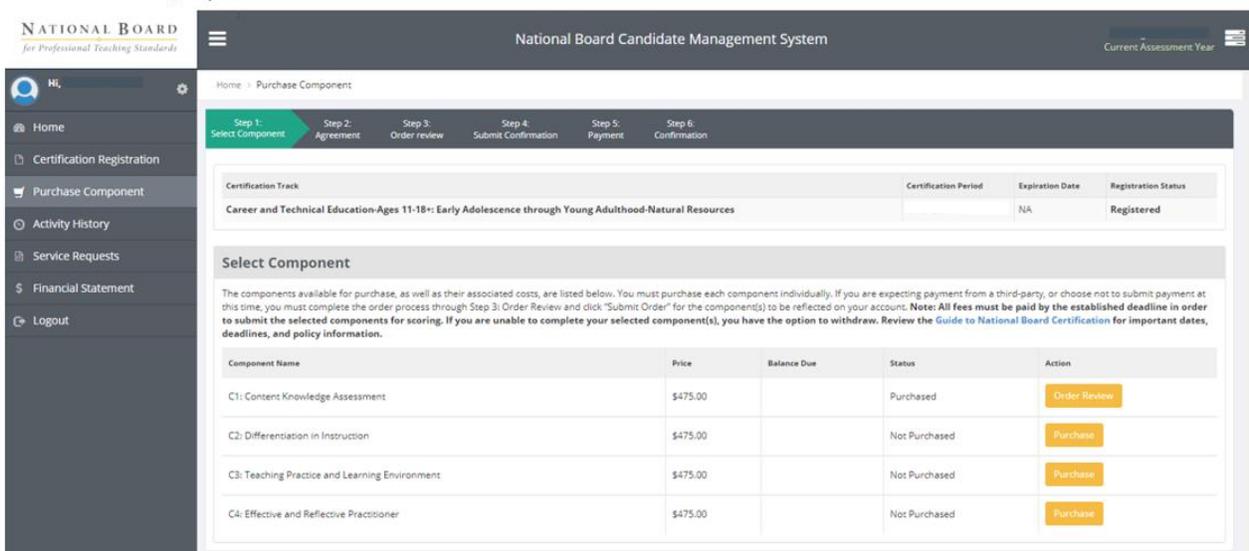
Profile		Candidate Status	Certification In Progress
Name		Primary Mailing Address	
National Board ID			
Profession			
Primary Email			
Primary Phone			

Select Components

Log in to your account at www.nbpts.org/sign-in and click Purchase Component from the left-hand menu or the Click Here button under Notifications. Only purchase the components you plan to complete during the current assessment cycle - you must complete this step even if you are receiving third-party financial support and must purchase a component in order to be considered an active candidate for the current cycle.



The component selection process consists of six steps. An overview of these steps is provided below.



Step 1: Select Component

The components available for your certificate area will be displayed here. You must select and purchase each component individually. **Note: Although payment is not required at the time of component selection, you must complete the order process through Step 3 and click Submit Order for the component to be reflected on your account.**

Step 2: Agreement

The Agreement tab requires you to select 'yes' or 'no' to the following policies:

- I agree that my assessment materials, once submitted, are the property of the National Board and may be used at the sole discretion of the National Board for assessment, professional development, research, and any other purposes the National Board deems appropriate to further the mission of the organization.
- I understand the deadline for withdrawing and receiving a partial refund as outlined in the Guide to National Board Certification.

Step 3: Order Review

This step allows you to review and edit your component selection. **Note: Although payment is not required at the time of component selection, you must click Submit Order for the component to be reflected in your account and for payments – including any potential third-party payments – to be applied.**

Step 4: Submit Confirmation

Confirmation of the component purchase is provided here. You are also provided with the option to review your activity history and purchase additional components. **Note: If you are expecting payment from a third party, you do not need to move on to Step 5.**

Step 5: Payment

You may pay the component fee by credit or debit card or by electronic check. **Note: Even if you are expecting payment from a third party you must be prepared to submit payment in full by the published deadline.**

Step 6: Confirmation

Upon payment of the component fee, you will be sent an email confirmation with receipt of payment.

Note: You MUST repeat steps 1-6 for each component you plan to purchase and should only purchase the components you plan to complete during the current assessment cycle.

Contact Us

Online Resources*

Access www.nbpts.org/national-board-certification for information regarding

- Registration
- Eligibility Requirements
- National Board Standards
- Component Instructions
- Scoring Guide: Understanding Your Scores
- Assessment Center Policy and Guidelines
- Nonstandard Testing Accommodations
- ePortfolio

Your information is managed via a secure, online account. Access www.nbpts.org/sign-in to

- create/access your account,
- register for the upcoming assessment cycle,
- purchase components,
- view your candidate record,
- pay by credit or debit card,
- view payments, and
- update personal information.

Contact National Board Customer Support (Be sure to include your candidate ID number in all correspondence with the National Board.)

By phone: 1-800-22TEACH (83224) Monday–Friday, 8:00 a.m.–6:00 p.m., CST

Online: Submit your question using the [National Board web form](#).

- For assistance with registration.
- To inquire about deadlines, policies, or the status of your account.

THIS PAGE INTENTIONALLY LEFT BLANK

Produced for

NATIONAL BOARD

for Professional Teaching Standards®

by



©2020 National Board for Professional Teaching Standards. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording, or any information storage or retrieval system, without permission in writing from the publisher.

The National Board for Professional Teaching Standards logo, National Board for Professional Teaching Standards, NBPTS, National Board Certified Teacher, NBCT, National Board Certification, Accomplished Teacher, Profile of Professional Growth, and ATLAS Accomplished Teaching, Learning and Schools are registered trademarks or service marks of the National Board for Professional Teaching Standards. Other marks are trademarks or registered trademarks of their respective organizations.

The National Board for Professional Teaching Standards, Inc. has been funded in part with grants from the U.S. Department of Education and the National Science Foundation. The contents of this publication do not necessarily represent the policy of the U.S. Department of Education or the National Science Foundation, and you should not assume endorsement by the Federal Government. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the sponsors.

Prepared by Pearson for submission under contract with the National Board for Professional Teaching Standards®.

Pearson and its logo are trademarks, in the U.S. and/or other countries, of Pearson Education, Inc. or its affiliate(s).



General Portfolio Instructions

General Portfolio Instructions

**Components
2, 3, & 4:
All Certificate Areas**

NATIONAL BOARD
for Professional Teaching Standards®

Contents

Preparing for the Assessment	1
Getting Started	1
Retaking a Portfolio Component.....	2
Understanding the Portfolio Component General Requirements	3
Locating and Using Important Resources	5
Following Policies and Guidelines	8
Learning Portfolio-Related Terms	12
Developing Your Materials	17
Writing about Teaching.....	17
Recording Videos for Component 3	32
Analyzing Student Work	40
Formatting, Organizing, and Submitting Your Portfolio	45
Formatting Your Evidence for Electronic Submission.....	45
Using Forms to Organize and Describe Your Evidence.....	47
Uploading and Submitting Your Evidence of Accomplished Teaching	51

Preparing for the Assessment

The National Board for Professional Teaching Standards (National Board) Certification process offers you, as an experienced teacher, the opportunity to demonstrate that your knowledge, skills, and accomplished teaching practices meet high and rigorous standards. You must demonstrate your knowledge through a computer-based assessment component and three portfolio components; the portfolio components provide the opportunity to demonstrate actual teaching practice.

- Computer-based assessment component:
Component 1: Content Knowledge
- Portfolio components:
Component 2: Differentiation in Instruction
Component 3: Teaching Practice and Learning Environment
Component 4: Effective and Reflective Practitioner

For more information on the certification process, refer to the *Guide to National Board Certification* at www.nbpts.org/national-board-certification/candidate-center.

The information in this section helps you prepare for the portfolio process by presenting key foundational resources as well as requirements, policies, and guidelines. Major topics include the following:

- ["Getting Started"](#)
- ["Retaking a Portfolio Component"](#)
- ["Understanding the Portfolio Component General Requirements"](#)
- ["Locating and Using Important Resources"](#)
- ["Following Policies and Guidelines"](#)
- ["Learning Portfolio-Related Terms"](#)

Getting Started

You should follow these steps in preparing for and completing the portfolio component development and submission process:

1. Read these *General Portfolio Instructions* to learn how you demonstrate your accomplished teaching practice and about the resources available to you.
2. Read the Standards for your certificate area as well as the Five Core Propositions to understand the knowledge and skills being measured.
3. Read the certificate-specific *Portfolio Instructions and Scoring Rubric* for each component to review the directions and specifications for developing your response, choosing evidence of your teaching practice, completing the appropriate forms, and submitting your portfolio materials, as well as to review the scoring rubric.
4. Read the *Scoring Guide* for an explanation of scores required to earn certification and how you can use the rubrics and feedback statements to evaluate your performance.

5. For instructions on using the electronic portfolio management system (ePortfolio) to submit your materials, review the tips, tools, and tutorials and the *Guide to Electronic Submission* at www.nbpts.org/national-board-certification/candidate-center.

Retaking a Portfolio Component

You may retake any portfolio component on which you would like to improve your score. There is no minimum or maximum score requirement to retake a component.

Note: You will not know whether you met the minimum score for the portfolio section until you take Components 2, 3, and 4. You will not know whether you have met the minimum total weighted score required for certification until you have completed all four components.

Read the *Scoring Guide* to evaluate your retake options and learn how to use the National Board's online retake calculator at www.nbpts.org/scorecalculator or the calculator embedded within your account to assist you in deciding which portfolio components and/or assessment center parts you should retake.

Reviewing Your Original Portfolio Component Submission

Once you have decided which portfolio component(s) you would like to retake, evaluate your original portfolio component to determine how you can raise your score by following these steps:

1. Read any standardized feedback statements on your score report to gain insight about how to improve a portfolio component for which you achieved a score less than 3.75. Feedback statements identify aspects of your portfolio component that may be improved with evidence that better demonstrates the Five Core Propositions, your Standards, and the scoring rubric.
2. Refer to the certificate-specific *Portfolio Instructions and Scoring Rubric* for each component to reread the rubric. Pay particular attention to the performance level most closely matching the score that you obtained. Next, read the Level 3 and Level 4 performance levels to identify ways in which you may strengthen your performance.
3. Examine your copy of the original portfolio component submission. Reread the Standards for your certificate area to identify where your original portfolio component submission could have been strengthened. If possible, ask a colleague or mentor who is familiar with the National Board Standards for constructive criticism of your original portfolio component submission.

You are strongly urged to reevaluate the substance and significance of the evidence of your teaching that you submitted, as well as to consider other evidence you have not submitted, and select for your retake component evidence that clearly shows your ability to improve teaching and learning.

Rules Governing Your Retake Submission

Keep in mind the following retake rules:

- The **Contextual Information Sheet** may remain the same if it accurately describes your current teaching context.
- **Descriptive aspects of your teaching context** in the Written Commentary and some forms associated with the component may remain the same; therefore, your retake

submission may have some similarities to the Written Commentary and forms you previously submitted in the area of instructional context.

- **Descriptive aspects of your lesson or assignment** in the Written Commentary and some forms associated with the component may remain the same because you may use the same lesson or assignment you previously submitted. However, if you do submit the same lesson or assignment, all work must be completed within the 12 months prior to the opening of the ePortfolio submission window as described in the *Guide to National Board Certification*. You should carefully consider whether this lesson or assignment allows you to provide evidence that meets the performance standards for this component. You also need to consider whether using the same lesson or assignment will permit you to develop the required **new and original analyses and reflections on your teaching practice** and provide clear, consistent, and convincing evidence.
- **Analysis and reflection aspects of your teaching practice** in the Written Commentary **must be completely new and original**, not identical or amended versions from any component previously submitted. Consequently, a classroom-based retake component with cutting and pasting or rearranging of sentences and paragraphs from your previously submitted analyses and reflections would be an amended version that does not adhere to this rule. If you do not adhere to this rule, your component **will not be scorable and you will receive a code of NS on your score report instead of a numerical score**.
- **The student work samples or video recordings** contained in a retake component **must be completely new and original** and have occurred within the 12 months preceding the opening of the ePortfolio submission window, not identical or amended versions from any component previously submitted. If you do not adhere to this rule, your component **will not be scorable and you will receive a code of NS on your score report instead of a numerical score**.

Retake portfolio components are compared to your previously submitted, corresponding portfolio components. If a retake portfolio component does not adhere to the retake rules, the component will not be scorable and you will receive a code of NS on your score report instead of a numerical score.

Understanding the Portfolio Component General Requirements

Each certificate area's assessment is based on a specific grouping of National Board Standards that articulates a vision of teaching and describes what accomplished teachers of a specific developmental group and in a specific subject area should know and be able to do. Through the vehicle of the portfolio, you can select examples of your practice that show how your practice embodies the Standards.

A complete portfolio of Components 2, 3, and 4 is designed to assess a teacher's performance in a wide range of instructional settings. If you have multiple classes that meet the age and content requirements, take advantage of these different classes when completing Components 2, 3, and 4 to best demonstrate the broadest possible range of your teaching practice. However, if you have access to only one class that meets the age and content requirements for the certificate area, you may use a single class as the basis for the portfolio entries for Components 2, 3, and 4. Careful consideration should be given to the selection of evidence submitted for each component. For instance, the individual students whose work is featured and any assessments and/or examples of student work submitted for Component 2 must be different from those submitted for Component 4.

When planning the student work you will collect for Component 2, the lessons you will video record for Component 3, and the evidence you will collect for Component 4, keep in mind the following requirements for these components:

■ **Class composition.**

- **Age.** The teaching that you feature must take place with a class that meets the age and content parameters of the certificate area: at least 51% of the students in the class(es) that you use to complete your portfolio components, including both videos for Component 3, must be within the stated age range for the certificate area during the period in which you collect evidence for your portfolio. Teachers or counselors with students over the age of 18 years must be teaching within the stated age range for the certificate area and in pre-K-12 settings, not in community college or university/college settings.
- **Rostered class.** The students featured **must be from a rostered class during the regular school day and year, not after-school classes or summer school.** (However, note the following exceptions: Music candidates are allowed to use after-school classes; School Counseling and Library Media candidates may use after-school programs and non-rostered classes.) You may not include students from other classes to supplement your class.

If you are in an administrative position or are in an assignment or teaching setting where you do not have a class of your own that matches the parameters of the certificate area in which you are seeking certification, you may borrow or guest teach another teacher's class or students in order to complete the task for any portfolio component. The class must fall within the age range of the certificate in which you are pursuing certification. Your work will be assessed with the same standards as the work of candidates who present work generated by their own students.

- **IEP/IFSP/gifted requirements.** Exceptional Needs Specialist candidates must feature students with exceptional needs who have an IEP, IFSP, and/or have been identified as gifted.

If you do not adhere to the class composition requirements, your component **will not be scorable and you will receive a code of NS on your score report instead of a numerical score.**

- **Time period.** For Component 2 and Component 3, the period for evidence collection begins 12 months prior to the opening date of the ePortfolio submission window as described in the *Guide to National Board Certification*. If you submit a component featuring a class and/or students and evidence that date from more than 12 months before the opening of the ePortfolio submission window, your component **will not be scorable and you will receive a code of NS on your score report instead of a numerical score.**

For Component 4 only, the class/group and assessments that you feature must come from the time frame that begins 12 months prior to the opening date of the ePortfolio submission window. However, the identification of a professional learning need and a student need and actions taken to address those needs may occur up to 24 months prior to the opening date of the ePortfolio submission window, but evidence of the impact on student learning of the actions taken to address the needs must be gathered beginning no more than 12 months prior to the opening date of the ePortfolio submission window. See the *Portfolio Instructions and Scoring Rubric* for Component 4 for more details. If you submit your Component 4 portfolio with one or more sections that feature a class, an assessment, a need, and/or evidence that is older than the time frames described above, that response will be considered inappropriate and **will be treated as missing material** during scoring.

- **Variety of evidence.** The evidence submitted for Component 2 and Component 4 and one of the two video recordings submitted for Component 3 may be from the same unit of instruction, but must be from different lessons that have unique lesson goals and objectives—even if all evidence is drawn from a single instructional setting. The two videos for Component 3, however, must show different units of instruction (videos representing the same unit or lesson will limit the evidence that assessors will score). Likewise, the individual students whose work is featured and any assessments and/or examples of student work submitted for Component 2 must be different from those submitted for Component 4.

Whether working with your own or another teacher’s students, you will be expected to submit authentic materials that represent your individual work. You must meet the time frame specified in the component instructions. Your submission will be assessed in terms of the component tasks and the criteria defined by the rubrics.

Locating and Using Important Resources

To best reflect your accomplished teaching practice, it is essential that you understand both the foundational philosophies and the practical components of the portfolio process. This section describes the materials available to help you get started in gathering evidence and documenting your accomplished teaching practice.

Downloading Essential Resources

Visit the National Board website (www.nbpts.org/national-board-certification/candidate-center) for all current important materials, including the following:

- [Guide to National Board Certification](#) (policies and procedures for the certification process)
- [National Board Standards](#) (for each certificate area)
- [Five Core Propositions](#)
- [Scoring Guide](#)

You may also contact customer support, available by phone at 1-800-22TEACH® or by using the National Board [web form](#), located on the [Contact Us](#) page of the National Board website.

Studying the Five Core Propositions and the Standards

Knowing and understanding the Five Core Propositions and the Standards for each certificate area, and for each component within an area, form the foundation of your process as you collect and analyze evidence of your accomplished teaching practice. The National Board Five Core Propositions and the Standards developed for each certificate area should guide each stage of your portfolio development process by

- providing a framework to help you collect the most relevant evidence of your accomplished teaching practice;
- helping you focus your analysis of and writing about that practice;
- enhancing your understanding of how the portfolio components will be scored by National Board assessors.

The Five Core Propositions describe the core characteristics of an accomplished teacher and are at the heart of the evaluation embodied in the National Board Certification process. They are enumerated in the National Board policy statement, *What Teachers Should Know and Be Able to Do*, which is published on the National Board website. The characteristics described in the Five Core Propositions define the knowledge, skills, dispositions, and commitments of accomplished teachers—commitment to students and their learning, knowledge of both the subjects they teach and how to teach those subjects, responsibility for managing and monitoring student learning, systematic consideration of their practice and readiness to learn from experience, and membership within learning communities.

The National Board Standards are a reflection of the Five Core Propositions. The Standards detail specific knowledge, skills, and attitudes that define accomplished practice; illustrate the ways in which professional judgment is reflected in action; and describe how knowledge, skills, and attitudes could be adapted in a variety of settings. You will submit evidence to demonstrate aspects of accomplished teaching practice identified with the Standards. Understanding how the Standards are reflected in your day-to-day practice is key to developing a successful portfolio.

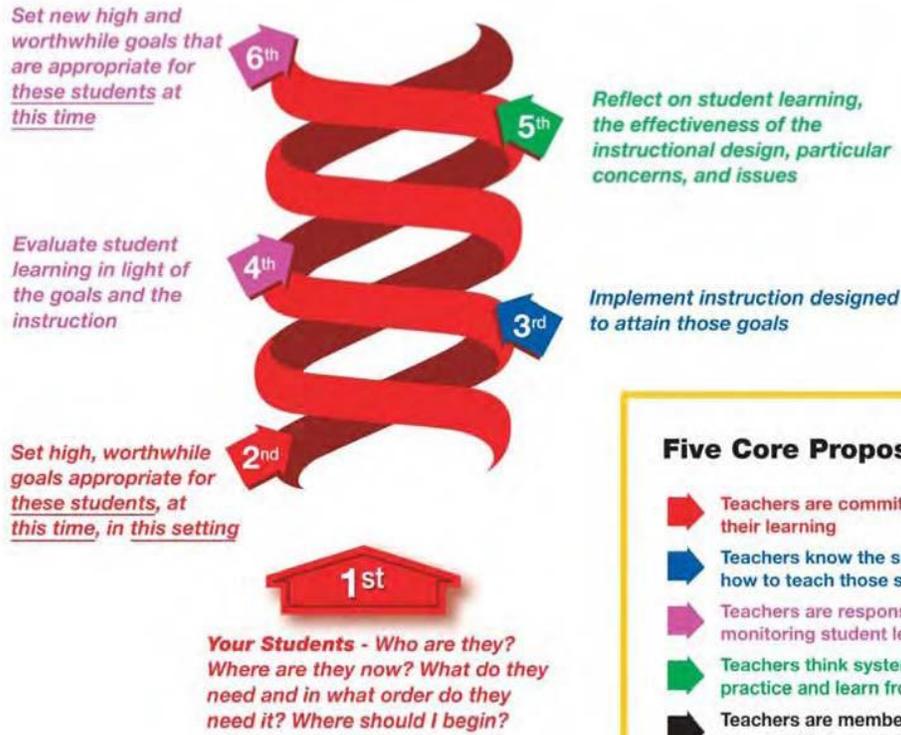
Sets of Standards are developed for each of the specific certificate areas, and each component of a certificate area is based on a subset of these Standards. When you begin to review each component of your certificate area, you will find that these groupings of Standards define and frame what will be assessed by that component.

Gathering Evidence of Accomplished Teaching

Through your portfolio components, you can capture your teaching practice in real-time, real-life settings, thus allowing trained assessors in your field to examine how you translate knowledge and theory into practice.

Architecture of Accomplished Teaching Helix

The Architecture of Accomplished Teaching Helix shown below uses a double spiral to illustrate the carefully woven, upward-spiraling nature of accomplished teaching, where knowledge of students, commitment to goals, and practice of instruction, analysis, and reflection—as defined by the Five Core Propositions—develop at six closely linked stages.



Five Core Propositions

- ➔ Teachers are committed to students and their learning
- ➔ Teachers know the subjects they teach and how to teach those subjects to students
- ➔ Teachers are responsible for managing and monitoring student learning
- ➔ Teachers think systematically about their practice and learn from experience
- ➔ Teachers are members of learning communities

© 2005 NBPTS. All rights reserved.

Use the following table to review the steps used to demonstrate accomplished teaching and to see how each step relates to the Five Core Propositions. The steps can guide you in planning your portfolio components and collecting evidence to demonstrate your teaching practice.

Step	Description	Core Proposition Demonstrated	Collecting Evidence of Accomplished Teaching
1	Know Students and Subject Area	Teachers are committed to students and their learning.	Who are my students? Where are they now? What do they need? In what order do they need it? Where should I begin?
2	Set Learning Goals	Teachers are committed to students and their learning.	What high and worthwhile goals can be provided, at <i>this time</i> , in <i>this setting</i> , that are appropriate for <i>these students</i> ?
3	Implement Instructions to Achieve Goals	Teachers know the subjects they teach and how to teach those subjects to students.	What instructional strategies would be most effective for meeting goals? What materials, people, or places can I use to enhance student learning?
4	Evaluate Student Learning	Teachers are responsible for managing and monitoring student learning.	Determine by evaluating student learning in relation to instruction—have goals been met?
5	Reflect on Teaching Practice	Teachers think systematically about their practice and learn from experience.	What would I do differently? What are my next steps?
6	Set New Learning Goals	Teachers are responsible for managing and monitoring student learning.	Based on evaluations of student learning of these students at this time, what goals would now be appropriate to set for students?

Following Policies and Guidelines

As a candidate, you must read and agree to all terms addressed in the National Board Policies statement located and defined in the *Guide to National Board Certification* and, for Component 1, the *Assessment Center Policy and Guidelines* available on the National Board website. National Board ensures that the National Board Certification process is fair for all applicants and is committed to examining and refining these policies on a regular basis to ensure that they benefit all candidates and enhance the ability of National Board to provide efficient and high-quality services. This section addresses ethics and collaboration; guidelines for referring to people, institutions, and places; and language accommodations.

Ethics and Collaboration

Collaboration with colleagues is a valued part of the process: engage them in professional discussions about the National Board Standards; have them help you video record, watch,

and analyze the video recordings; and have them read and comment on your analyses and on the student work you have chosen. **However, all of the work you submit as part of your response to each portfolio component must be yours and yours alone.** The written analyses and other evidence you submit must feature teaching that you did and work that you oversaw.

If you work as a member of a team of teachers, you have an opportunity to collaborate with other members of the team who are going through the assessment. However, if you work in a team teaching setting, you should review your responses carefully to ensure that all your responses are unique to your teaching context and feature teaching that you did and work that you oversaw. You and your colleagues may consider submitting different units of instruction to avoid presenting identical materials.

It is mandatory that you submit unique video recordings, student work samples, and assessment data, as well as separate and different analyses and reflections regardless of your teaching situation.

If you submit materials and/or evidence identical to those of another candidate with whom you have collaborated, both of you will be disqualified from the certification process, and the organization or entity funding your certification assessment fee, if any, will be notified of this disqualification and the reason for it.

The National Board does not tolerate cheating or confidentiality breaches of any type. Help protect the integrity of National Board Certification. Immediately report breaches of security, misconduct, and/or unethical practice by calling the National Board at 1-800-22TEACH (83224).

For important information regarding adherence to ethical behavior that is expected of all National Board candidates and National Board Certified Teachers, see the [National Board Policy Guidelines for Ethical Candidate Support](#).

Release Forms

For each of the three portfolio components, you are required to seek and receive permission to use images and some of the materials you include in your portfolio. You collect permission in the form of National Board releases for students and adults whose images, work, self-assessments, and/or communications, such as notes and emails, appear in your materials; students and adults whose images are included in your photos and/or whose images are seen or voices are heard in videos; and all parents or guardians of such students.

Prior to uploading your submission(s) for Components 2, 3, and 4, you must attest to National Board that you have obtained releases for individuals whose images, voices, work, self-assessments, and/or communications appear in your portfolio materials. You must keep National Board Student and Adult Release forms with your records; do not submit them to National Board.

Guidelines for Referring to People, Institutions, and Places

As you develop evidence of your accomplished teaching practice, you must refer to students and possibly to parents, colleagues, and other adults. In these and all materials that you submit with your portfolio components, *you must refer to people in ways that preserve their anonymity*, following the guidelines provided below. Your written materials, student work samples, and instructional materials must not show the last names of any person.

Exceptions are National Board Student Release Forms and Adult Release Forms, which must contain full signatures but *which you do not submit with your portfolio*.

Your goal in referring to people or places is to convey to assessors sufficient evidence about your teaching practice. Use the following guidelines to refer to people, institutions, and places in all of your written work:

- **Children or students.** Use first names only. If you choose to feature two students with the same first name, use first names and the first letter of each of their last names.
- **Parents or legal guardians.** Identify these adults by referencing their relationship to the students, for example, "Marie's mother." Parents should receive the same kind of anonymity as students.
- **Other teachers, principals, school employees, or administrators.** Use "a colleague" or "the principal" if possible. If necessary, refer to the person by first name only. For example, use a construction like "John, one of our math teachers"
- **Your school, school district, or facility name.** Use the institution's initials, followed by the words that identify the level of the school, *but do not identify its location*. For example, you would use "JM Middle School," or Sunny Cottage School would become "SC School."
- **Your city, county, or state.** Refer to these only as "my city," "my county," or "my state."
- **A college or university.** Write "a four-year college," "a graduate program," or "a two-year college." It is better to be clear and general when making such references than to use unnatural constructions such as "John Doe University."
- **Your name.** Be sure to remove your name from student work (e.g., use correction fluid before scanning) and *do not include your name in your Written Commentaries*. If you are quoting a student, use "Joey then said, 'Mrs. S., why do we need to . . .'" or something similar.

Caution: Remember, all last names on correspondence, assessments, and student self-assessments/feedback **must be redacted**. Do **not** leave personally identifiable information on any documents you submit.

Language Accommodations Policies

National Board recognizes that languages other than English are frequently used in instructional settings; therefore, for the following circumstances, the accommodations described are allowed.

Student Work Samples and Video Evidence with Brief Expressions or Phrases in a Language other than English

Student work samples and video evidence may include brief expressions or phrases in a language other than English. The inclusion of such expressions or phrases must be limited because assessors do not have fluency in languages other than English. If expressions or phrases in a language other than English that are important for an assessor to understand are included, you must include brief explanations of these expressions or phrases in the Written Commentary that accompanies your portfolio submission.

Student Work Samples and Video Evidence in a Language other than English

If you are submitting a student work sample, video evidence, or other type of evidence (e.g., an assessment) in a language other than English, you must include a written English translation for the work sample, video evidence, or other type of evidence in the file with the artifact. For a translation of a video, include the translation at the end of the Written

Commentary. Include any necessary student identifiers (but do *not* include students' last names). Note that the pages of your translation do not count toward your page totals.

If you do not include a translation or explanation, language other than English will not be considered in the scoring of your submission (except brief non-English terms or phrases commonly used by English speakers). Your submission will be scored based on the portions in English and the translations/explanations you provide. It will be scored as zero if the scorable portions do not merit a score of 1 or higher. However, failure to provide a translation or to properly label your translated submission will mean that your response will not be scored.

Your Written Commentary must be written entirely in English in order to be considered for scoring.

EXCEPTIONS:

- **English Language Arts.** Candidates seeking certification in this area must submit student work samples, video evidence, and other types of evidence in English only.
- **World Languages.** Assessors for this certificate area are fluent in English *and* the target language; therefore translations are only required for evidence that is in a language other than English or the target language.

If the majority of your instruction takes place with students for whom English is a new language, the appropriate National Board certificate may be either the Early and Middle Childhood/English as a New Language certificate or the Early Adolescence through Young Adulthood/English as a New Language certificate. To help you make the decision whether to pursue certification in one of the available certificate areas, refer to *Choosing the Right Certificate* and discuss your teaching situation with professional colleagues, your school faculty, a National Board Certified Teacher, or your faculty support group or refer to the National Board Standards.

Alternative Communication Modes

National Board recognizes that teachers and students in exceptional needs settings may routinely use

- manual languages (such as American Sign Language) in their interactions;
- Braille instead of, or in addition to, traditional print.

Specific instructions for submitting video recordings and student work in these circumstances are included in the *Portfolio Instructions and Scoring Rubric* for the Early Childhood through Young Adulthood/Exceptional Needs Specialist certificate area. In general, however, these are the guidelines that must be followed:

- If you submit a video recording in which there are brief phrases of manual language, without voicing, you must provide a transcript of the conversation in which there was no voicing.
- If you submit a video recording in which a student's language is unintelligible, either because of technical problems or because of a speech/language impairment, you must provide a transcript of the student's comments.
- If you submit a video recording that is extensively or exclusively in manual language, with or without voicing, an interpreter will be provided at the scoring site to assist assessors in understanding the video recording. You must notify National Board in writing

that your portfolio component requires interpreter services or your component will not be scored. Notify using the National Board [web form](#), located on the [Contact Us](#) page of the National Board website.

- If you submit instructional artifacts (e.g., assignments, handouts) or student work samples in Braille, you must provide translations of the materials.

Learning Portfolio-Related Terms

General definitions of some of the terms frequently used in the certificate-specific *Portfolio Instructions and Scoring Rubric* for each component appear below. Some of these terms may not apply to your certificate area, so you will not necessarily find them in the text of your certificate. Note that the Standards provide additional examples of the meaning of some terms within the portfolio context.

Use the section below as a quick reference, but consider the National Board Standards for your certificate area as well as the certificate-specific *Portfolio Instructions and Scoring Rubric* for each component to be the final authorities for how you complete and submit your work. It is your responsibility to understand the Standards and to study the portfolio instructions carefully before you make decisions about which lessons and students you feature in any portfolio.

assessor(s)

The person(s) trained to score National Board portfolios and assessment center exercises/constructed response items. To become an assessor, a person must possess a baccalaureate degree and a teaching or counseling license, have had three years of teaching or counseling employment, be currently working in the certificate area he or she will score or hold current National Board Certification in that area, and have successfully completed assessor training. Current candidates for National Board Certification are not eligible to be assessors.

assignment

Any formal or informal prompt or other device used to cause students to produce responses.

bilingual

Able to function in two languages. In the portfolios, “bilingual” refers to any instructional setting in which the students are English language learners and use their first language to learn content and to aid in their English language development.

cite

To mention or bring forward as support, illustration, or proof. When portfolio instructions ask you to “cite specific examples” of something, you should provide evidence that clearly supports whatever point you are trying to make in your response to the questions in the portfolio instructions.

class

A section or group of students that you teach during a specified time period (e.g., fourth period English). This is different from a subject area (e.g., English). This distinction is important because although you may teach several classes in a subject area, portfolio instructions ask you to consider a specific class or group of students in a class, rather than all of the students in a particular subject area.

class set

A group of materials for an assignment that includes the student work samples of every student in a class. You must submit student work samples and materials according to the

specific portfolio instructions. You must submit student work only for those students whose work is featured in your submission.

content

A subject area such as mathematics, science, social studies/history, or technology education. In content-based English as a Second Language, English would be taught in conjunction with a subject area to a group of students of limited English proficiency (LEP), who may, but do not necessarily, share a similar first language.

data

Facts or information, quantitative or qualitative, used to analyze or plan instruction. Educational data includes all kinds of information that rises out of teachers' work with their students and helps teachers know their students. This information includes, but is not limited to, observations, formative and summative assessment results, demographics, behavior, home circumstances, and student affect.

disciplinary

Of or relating to a specific field of academic study (e.g., social studies, biology).

elicit

To bring or draw out (e.g., the Adolescence and Young Adulthood/Mathematics Component 2 portfolio component requires that instructional activities "are effective for eliciting responses that can affect instruction").

evidence

Evidence that has a solid foundation in fact and would be convincing to most people. The basis for this kind of evidence is that it be strong, clear, and convincing and that it not be easily disproved by a difference in interpretation. The presentation of evidence does not remove the need for you to write detailed and well-organized analyses; assessors still need to know that you recognized this evidence, and they want to see how you have used this evidence in your teaching.

evoke

To summon or call forth. In the context of portfolio components, an assignment/prompt that evokes student responses causes students to produce the desired work.

evolution

Gradual changes. Used in a general sense, this could refer to gradual changes that take place in an instructional setting or in your teaching practice.

formative assessment

Formative assessments take place during an instructional sequence. An assessment is considered to be formative, regardless of design, if it produces information that can be used to fine tune instruction and modify subsequent learning activities. Feedback, for both the teacher and the student, to improve student learning is the most important objective of formative assessment. This is in contrast to the use of summative assessment, which comes at the end of an instructional sequence.

insight

The capacity to grasp the true nature of a situation; the act or outcome of grasping the inner nature of things or of perceiving in an intuitive manner. If you are asked to give insightful reflection in a portfolio component, you must show assessors that you grasp the true nature of the teaching situation and/or that you understand it in a perceptive or intuitive way.

instructional materials

An item used or produced during a teaching sequence. Assessors review the materials to better understand the activity featured in your video recording or Written Commentary (e.g., rubric, Internet Web page).

instructional sequence

A group of related lessons or activities supported by a common goal or theme. The instructional sequence is not limited to one lesson or activity. The time interval should be sufficient to present evidence of students' skill or understanding of the topic.

interdisciplinary/cross-disciplinary

Of, relating to, or involving two or more academic disciplines that are usually considered distinct. "Interdisciplinary" or "cross-disciplinary" may simply refer to two different branches of science or can be as different as social studies and the arts.

interpretation

The explanation of a conclusion you reached about the results of a teaching situation. An interpretation explains to assessors how you understand the results of an event and what these results mean to you. See "[Writing about Teaching](#)" for more detailed explanations and writing samples.

lesson

A period of instruction; an assignment or exercise in which something is to be learned; an act or an instance of instructing.

manipulatives

Hand-held objects with moving or interchangeable parts that are used as models to demonstrate the structure of something or how it works (e.g., the set of sticks and balls that fit together to show the structure of molecules).

nonprint text

Includes instructional materials that are not part of a curriculum textbook with the exception of illustrations. Nonprint items include media such as a drawing, film, drama, photography, speech, presentation, newscast, collage, graph, computer-generated product (graphic) or other appropriate technology, and any other visual or audio performances. Nonprint items may contain some text (e.g., a comic strip).

pedagogy

The art or profession of teaching, training, or instruction.

print text

Instructional materials that are printed literary texts such as books, short stories, or poems.

prompt

Information that causes or stimulates students to produce responses. A prompt can be formal or informal and can be anything from a specific assignment to a piece of art, a photograph, or a theory in your field of teaching. A prompt might be a writing topic you give students as a basis for their response to a short story that serves as a stimulus.

scaffolding

Various means of supporting learning and making new material or concepts accessible to students, during the practice of which teachers methodically build on students' prior knowledge in order to teach new skills, procedures, and concepts.

small-group discussions

This term as used in this context describes the requirements of video-based portfolio components for the purposes of which a small group generally consists of three to five students (although this may vary based on the number of students a teacher has in a class and on specific portfolio instructions). The main objective of highlighting small-group discussions is to show the teacher facilitating discussion among students within the small groups during the regular class with others present and not recorded during an off period or after school.

stimulus

Information used to elicit a response or action; an incentive. A stimulus can be a written work or visual object, an activity or event, directions given by the teacher, or anything that causes student responses to be produced. A stimulus might be a short story, and a prompt might be a writing topic you give students as a basis for their response to that story.

student assessment

The formal or informal process of collecting, analyzing, and evaluating evidence about what students know and can do. There are multiple forms of formal and informal assessments. Formal assessments may include, but are not limited to, classroom tests, performance assessments, and standardized tests. Informal assessments may include, but are not limited to, observations, checklists, and anecdotal records.

student response

Any kind of student work that results from an assignment by the teacher. This may be a discussion, a formal writing assignment, a drawing, a journal entry, or any other work a student completes under a teacher's guidance.

student self-assessment

Self-assessment is a process by which students monitor and evaluate the quality of their learning and identify strategies they can use to improve their understanding, knowledge, and skills. This activity supports students in the process of organizing, evaluating, and internalizing information while they are learning. Self-assessment cultivates students' ability to make connections themselves so that they are able to learn in a meaningful way and helps build student motivation and confidence.

student work

Student work samples as defined in the certificate-specific *Portfolio Instructions and Scoring Rubric* for each component, which also includes student work sample submission requirements.

summative assessment

Summative assessments evaluate educational outcomes (e.g., student learning, skill acquisition, and academic achievement) at the end of an instructional sequence. An assessment is considered to be summative, regardless of design, if it is used to evaluate mastery and/or advance a student to the next level of the instructional sequence. This is in contrast to the use of formative assessment.

tangible products

Some physical result of a lesson that reveals something about the teaching, the learning process, or students' learning or understandings. These products could be student work, a model produced during the lesson, and/or a piece of artwork.

unit

A section of an academic course that comprises a series of lessons, focusing on a selected theme or concept.

visual cues

Devices used to enhance understanding (e.g., a student’s gestures, illustrations).

visual literacy

The ability to recognize and understand ideas conveyed through visible actions or images (e.g., pictures).

whole-class discussions

In this context, this term is usually used when describing the requirements of video-based portfolio components. A whole-class discussion is one in which the entire class is involved in a discussion. This does not mean that each and every student must be shown in the video-recorded lesson. The main objective in a whole-class discussion is to show that the teacher is effectively engaging the entire class as a group. The video recording should show some interaction with specific students, but it is not necessary to zoom in on every student. However, it should be clear in the video recording you submit that the students are *actively engaged* in the discussion.

Some definitions include excerpts taken from *The American Heritage Dictionary of the English Language*, Fourth Edition. Copyright © 2006 by Houghton Mifflin Harcourt Publishing Company. Reproduced by permission.

Developing Your Materials

Following the step-by-step process, you have reviewed the foundational materials, including the Five Core Propositions, the Standards for your certificate area, and the *Scoring Guide*. You have also read the certificate-specific *Portfolio Instructions and Scoring Rubric* for each component, which provide a detailed understanding of both the portfolio process and the nature of the evidence you are being asked to gather, as well as a list of the Standards that each component focuses on.

In this section, you review the additional and detailed general resources for developing portfolio components, including the following:

- [“Writing about Teaching”](#)
- [“Recording Videos for Component 3”](#)
- [“Analyzing Student Work”](#)

There is a particularly valuable resource—a collection of questions—in the following three sections. You can pose these questions to yourself or use them to suggest other questions; all can help you more fully develop the kind of analysis you want to highlight in each of your Written Commentaries, a key element of each portfolio component.

Writing about Teaching

The certificate-specific *Portfolio Instructions and Scoring Rubric* for each component requires you to describe, analyze, and reflect on your teaching practice. This process involves these practices:

- **describing** what happened in an instructional situation
- **analyzing** the “how,” “why,” or “in what way” a particular lesson was or was not successful in teaching students
- **reflecting** on how you would handle this same situation in the future

These skills inform your evaluation of your own work—an evaluation that provides insight for National Board assessors into not only what is happening in your instructional setting, but the rationale for those events and processes. You make these evaluations in analyses that you submit with each component.

Thinking analytically about teaching is a complex process that benefits from both practice and teaching experience. Since writing about one’s own work is not a daily part of teaching, some teachers may have little experience with description, analysis, or reflection. Systematic and probing questions about “why” and “how” are key when analyzing and beginning to reflect on your practice.

For these reasons, it may be helpful to practice this kind of thinking and writing before you begin working on your Written Commentaries, the forms, or other written materials of the portfolio components. The questions provided in this section and the two that follow can help you get beneath the surface of the daily details of your teaching to jumpstart the work of analysis.

Although you are not submitting these practice activities to National Board, we encourage you to use these activities and the writing samples and suggestions provided to familiarize yourself with the kinds of thought and writing that are required in the portfolio components.

This can help you present to National Board assessors the clearest picture of your teaching practice.

Your writing about your teaching that you ultimately submit is the final visible result of a great deal of less visible labor—the culmination of the kind of analysis that the practice activities in these materials are designed to help elicit.

Why Your Written Commentaries Are Important

Remember that the only information available to National Board assessors is what you provide in these portfolio components—your video recordings, student work samples, instructional materials, completed forms, and Written Commentaries. Regardless of the strength of the evidence you present in the portfolio components, your analysis of your featured teaching is a crucial element conveyed by your Written Commentaries and completed forms. You must demonstrate to assessors that you have appropriately described, analyzed, and reflected on your teaching practice and have used this analysis appropriately to guide your teaching.

Description, Analysis, and Reflection

This brief guide to writing about teaching is really a guide to the summary activity that brings together all the hard work—the thinking, talking, discussing, prewriting, and rethinking—that you are doing during this process and that development of the portfolio components is designed to elicit.

Keep the essential differences among descriptive, analytical, and reflective writing in mind as you prepare your Written Commentaries and forms. The certificate-specific *Portfolio Instructions and Scoring Rubric* for each component calls for each of these kinds of writing; providing an appropriate response is essential to a complete presentation of your work.

Descriptive Writing

In this context, a *description* is a retelling of the facts of what happened in an instructional situation. It is meant to “set the scene” for assessors. Your description should be logically ordered and detailed enough to give assessors a basic sense of your instructional situation so that they can understand the context for your later analysis and reflection.

When you are asked to describe, be certain that your response meets these criteria:

- contains accurate and precise enumeration and/or explanation of critical features
- provides clear and logical ordering of the elements or features of the event, person, concept, or strategy described
- includes all features or elements that an outsider would need to be able to see as you see
- specifies the meaning of any abbreviation or acronym the first time it is used

TIP: Use descriptive writing whenever a prompt includes verbs such as “state,” “list,” or “describe” or when it opens with “what” or “which.” Confirm that your descriptions are clear and detailed enough to allow someone who is not familiar with your teaching to visualize and understand what you are describing.

Analytical and Reflective Writing

Analysis deals with reasons, motives, and interpretation and is grounded in the concrete evidence you provide in the materials you submit. Analytical writing shows assessors the thought processes that you used to arrive at your conclusions about a given teaching situation. It also demonstrates the significance of the evidence you submit.

Reflection is a thought process that you engage in after a teaching experience. This type of thinking allows you to make decisions about how you would approach similar situations in the future—deciding whether to do something the way you have in the past, differently, or not at all. Although reflective thought may occur at any time, the reflection component of your writing is where you must show assessors how you use what you have learned from your teaching experiences to inform and improve your practice in the future.

Analysis and reflection overlap, although they are not identical. For the purposes of the portfolio components, analysis involves interpretation and examination of why elements or events described are the way they are, while reflection always suggests self-analysis, or retrospective consideration, of your practice.

When you are asked to analyze or reflect, be certain that your response meets these criteria:

- The subject of the analysis is available to the reader (e.g., the student work samples, the video recording).
- The focus of your writing is not on *what* (which is descriptive) but rather on *why* (which is both analytical and reflective).
- You need to provide the following:
 - your interpretations of what happened during the lesson and its results
 - your conclusions about what should come next
 - specific evidence and/or examples that support your analysis and conclusions, clearly making your points to the assessors

For example, if you are asked to analyze the success of a particular lesson or some specific teaching, do not simply explain what happened, which would be a description. Further, do not state a conclusion (“The lesson was a success”) or simply note the fulfillment of your learning goals (“Students gained a better understanding of multiculturalism in our society”) without also giving evidence or examples to support the statement.

Analysis in the context of a portfolio component deals with reasons, motives, and interpretation, all of which should be grounded in the concrete evidence provided by your work. Your work alone cannot provide assessors with your understanding or interpretation of the significance of what you have submitted as samples of your practice—only your analysis can do this. Nor can your work tell assessors what you have inferred about your practice—only your reflection can give assessors that information.

TIP: Analysis is called for when a question asks “how,” “why,” or “in what way(s).” When you are asked to identify a particularly successful moment in a sample of teaching and to tell why you regard it as successful, you must analyze. When you are asked for a rationale, you must analyze.

When you are asked what student performance suggests about your teaching, you are being asked to analyze and interpret. This means that you are to use the evidence of student work to explain and illustrate your practice and also to use your practice to explain and provide a context for the student work. Ask yourself these questions:

- What did my students know before this teaching experience?
- What did my students learn because of this teaching experience?
- What did I know about my students and their knowledge before this teaching experience?
- What did I learn about my students and my practice because of this teaching experience?

TIP: When you are asked what you would do differently, your response is both an analysis of and a reflection on your practice.

Written Commentary Examples

This section presents three examples of Written Commentary that a teacher might compose in response to the learning goals and requirements and Standards of a hypothetical portfolio component. Review the three Written Commentary examples that follow.

The purpose of these examples is to illustrate some of the differences between descriptive, analytical, and reflective writing. These examples do not represent actual candidate responses and are not intended to be indicative of Level 3 or Level 4 writing or performance. They also represent only limited activities and teaching practices that may be submitted in your portfolio components. In addition, they may not reflect the actual requirements and Standards for your certificate area or the required formatting specifications (see your certificate-specific *Portfolio Instructions and Scoring Rubric* for certificate area requirements and formatting specifications).

Example 1

Key:

Description shown in **bold**
Analysis shown in underline
Reflection shown in *italic*

Instructional Context

My Advanced Placement (AP) Biology class was a very homogenous class relative to the rest of the school. In this class, students ranged in age from 16 to 17, with 19 students in the 11th grade and 2 students in the 12th grade. There were twenty white students and one black student, with no Hispanic, Multiracial or Asian students. There were no students identified as ESE or on a Free or Reduced lunch plan. There were 13 girls and 8 boys. There was no significant ethnic, cultural, or linguistic diversity in this class that affected the personality of the group. Many of these students have been grouped together in classes since elementary school and have few issues that affect their performance or congeniality.

A majority of students in my class were from prominently wealthy families in our community and stated they "were accustomed to success." Many have had few academic challenges until they enrolled in this college level biology course. At least half of the students showed difficulty in text comprehension and recognizing main ideas. Many students also faced difficulty in pacing the requirements of the course in addition to meeting the demands of a rigorous schedule and demanding extracurricular activities. The only previous science course many of these students had was a freshman level integrated science curriculum. Only half had experience with a chemistry course, and it focused primarily on dimensional analysis.

With the composition of class in mind, I was careful not to assume that my students' learning styles were as similar as their ethnic backgrounds which motivated me to introduce personality and multiple intelligence surveys. From the results of these surveys, I was able to diversify my

Example 1 (Continued)

instructional and assessment practices to increase student comprehension. For example, I noticed this class had many visual/spatial learners, so I used a software program to turn vocabulary terms into crossword puzzles. As a result, I immediately noticed many of my visual students were scoring higher on their summative assessments. Sarah, a bright girl who used to say she didn't "get it" later said that she enjoyed the class more and found the material more interesting when she had the assessments and materials tailored to her learning needs.

In my observations, the difference between the students who consistently scored well and those who struggled was not a major cognitive difference, but a difference in the ability to juggle the demands of a college course with other activities. The majority of the students struggled to remain on task when presented with a classroom interruption or deviation from the instructions.

This class was scheduled during the last period of the day, where it competed with extracurricular events and scheduled or unscheduled announcements. Frequently students had to leave early for a game, and this was also the period where many of our assemblies and meetings were held. Most of these students were involved in many of these events, and therefore often missed at least part of a class. For this reason the course sequence was delineated early in the year and posted at all times in the room and on the website. This way, students could be held accountable for their missed classes. The sequence of my instructional activities was meant to create interest, develop a connection between the major idea and the world around them and to reflect on the evolutionary relationships that define taxonomy today. This allowed me to deepen students' conceptual understanding and situate the major idea with a broader context.

Example 1 (Continued)

Planning

Throughout the course of this activity, students were to actively participate in a scientific discussion and use the cognitive and manipulative skills associated with the formation of scientific explanations. This activity was designed to bring together their prior knowledge and develop their contextual understanding of invertebrate organisms under a taxonomic or evolutionary context (Goal 1). Through the use of evolutionary biology we attempted to reconstruct a partial history of life on Earth (Goal 2). Another goal of this discussion was to evaluate the techniques through which systematists test and refine their hypothesis about phylogeny and classification (Goal 3). In the process, students would learn how molecular biology is changing systematics, as it is changing every field of biology (Goal 4).

These goals are important for my students because they are standards represented in the AP and AICE (Advanced International Certificate of Education) curriculum, both of which require a rigorous standardized exam as well as the National Science Standards. The significance of this major idea is the understanding of life's diversity. Students usually exhibit a general understanding of classification; however when presented with unique organisms they often revert to purely structural differences rather than appeal to the scientific basis of genetic or evolutionary differences.

A discussion was a particularly useful teaching approach for this lesson because ideas were examined and discussion in class so that other students could benefit from the feedback. Group discussions allowed students to develop meaning from active involvement, continued exposure and understanding of the concepts that guide phylogeny and classification. I was able to gain information about the students' current explanations. This allows me to immediately identify and correct student misinformation. Those student explanations then became the baseline for

Example 1 (Continued)

instruction as I helped students to construct explanations aligned with scientific knowledge. I

also helped students evaluate their own explanations and those made by scientists.

...

Reflection

Looking back to the goals for the activity, I feel that my approach was successful because I was able to modify instruction based on each student's need....I feel I was successful in helping students contextualize their knowledge of invertebrate organisms in an evolutionary context through thought-provoking questions and an inquiry method of discussion as part of Goal 1. Since this was a new activity to my repertoire, I feel that I can increase the relevance for students by having illustrations of the representative organisms to reinforce their prior knowledge. I will also align future assessments to represent the new discoveries in taxonomy and will include more studies into binomial nomenclature.

Example 2

Key:

Description shown in **bold**
Analysis shown in underline
Reflection shown in *italic*

The instructional goals for this lesson were for students to comprehend and enjoy a novel ["The Pinballs" by Betsy Byars], to identify dialect and theme, to make predictions, to identify, understand, and propose alternatives to conflict, to use prior experience during discussions, to interpret symbolism, to think long-term, to exercise problem-solving and decision-making skills using details from the text, to reflect on how this literature imitates life, and to extend understanding of the book through a variety of multimodal and cross-disciplinary activities. These instructional goals are consistent with the state's objectives and the school curriculum. They meet the requirements for listening, speaking, writing, literature study, reading, reference/research skills, and technology integration. **This selection ["The Pinballs"] is a good example of how culture transmits itself through literature, and students see how literature reflects true human experiences. I chose the small group format for two reasons. First, students are comfortable talking to each other as they work in collaborative groups on assignments in the classroom. This method allows them to take intellectual risks without feeling as though they have to "act" for me. For example, Kevin...used good oral language skills, but his dialect included incorrect grammar such as, "Ain't got no." As I monitored discussion, I knew I would need to address verbs and double negatives in a later lesson. My second reason for choosing the small group format is because this model ensures a greater number of students actively participating in discussion while simultaneously learning to appreciate cultural, linguistic, and personal interests of others. For example, Caroline... spoke low and was slow to respond. Her behavior is**

Example 2 (Continued)

consistent with her family's belief that it is disrespectful to be the center of attention so she resists bringing attention to herself. Erika...and Christian,...my two ESOL students, were vocal in small group discussion. This does not happen during whole class discussion. Since English is a barrier for them, they often shy away or speak too low to be heard by other students in a whole class discussion. I noticed how a small group setting facilitated ESOL students' speaking abilities because they felt validated by their peers. This method allowed all students to make personal and reading connections to the novel as they engaged in meaningful discussion about conflict.

Considering that the original nature of this unit was to expose students to literary works written by women, I made sure that there were at least two females in each group who represented at least two different cultural or ethnic backgrounds. My rationale was for the groups to have insight from each female's point of view based on their cultural experiences. I then assigned male and female students to groups equally. This setup automatically promoted differing opinions based on gender, race, cultural, and linguistic diversity. An informal assessment of my students' cultural backgrounds, prior learning experiences, etc. helped me strategically place students in groups to maximize discussion. Each group had five to six students to allow each student an opportunity to participate.

To spark interest and to set purpose for the discussion, students wrote letters to each other about a time when they encountered conflict and how they resolved it. To further set purpose for small group discussion, the class viewed a website (via scan converter) of a picture of pinballs. I connected the computer to a large screen television so that the class could view the image during group discussions. This helped students transfer prior knowledge so that they would have a clear understanding of conflict and how it relates to a pinball. I then told my students how Carlie, a character in the novel, had conflict with everyone and was treated like a pinball (has no control where it lands).

Example 2 (Continued)

...

I was so intrigued with the level of discussion within groups that I did not focus on theme. Before the video, Tycheri told me that theme was prose. I knew that she confused genre with theme. I did not discuss theme because I assumed other students had mastered the concept. I need to teach theme separately as a literary concept. I should have asked fewer questions in group two because I interrupted Christian. Had I facilitated more, he would have talked more. I did a good job of asking leading questions, but I should have let students ask some questions that facilitated critical thinking as well.

Small group discussion was effective. Prompts helped students stay focused on the topic. Groups even competed in pinball tournaments on the computer!

Example 3

Key:

Description shown in **bold**
Analysis shown in underline
Reflection shown in *italic*

Many interactions on the videotape show students learning to reason mathematically and to communicate their reasoning. One interaction is when the group of boys is rotating the right triangle. In this interaction, Jonathan (the boy in the gray shirt) turns the coordinate plane $\frac{1}{4}$ turn to the right, then locates the coordinates of point 1. He communicates those coordinates to be over 2 and up 2. However, when Jonathan made an error in the original position of the shape, I probed his thinking further, resulting in his understanding. In the video, I ask the group to observe the patterns in the table for the rotation of the rectangle. I led the group to the understanding that the opposite of the old x-coordinates have become the new y-coordinates and the old y-coordinates have become the new x-coordinates. As a result, the group notices their coordinates for the rotation should follow the same pattern. Thus, the real coordinates of Point I must be (2, -3). Another interaction which shows students reasoning mathematically is when the group of girls is working on the reflection of the isosceles triangle. During this part of the video, the two girls demonstrate how to correctly reflect the isosceles triangle over the x-axis by flipping from Quadrant II to Quadrant III. In addition, they demonstrate mathematical thinking as they work together to locate the coordinates of each point on the isosceles triangle. The girls communicate the coordinates of each point out loud to each other. Also, Megan (the girl in the black shirt) places her fingers on the graph and then counts how many units point F is over and down from the origin.

The analysis of the lesson suggests that the learning goals for these students were best achieved through small group interactions. One reason is the small groups allowed students more hands-on experience with manipulatives to perform the transformations. In the video,

Example 3 (Continued)

students physically moved their fingers on the graph and located the points. This experience is far more enriching and can not be duplicated by the use of a worksheet. Another reason is small groups provided students with the opportunity to interact with other individuals to communicate and correct their thinking. Both groups in the video communicated the location of points with each other, monitored their work with the graph, and corrected their thinking about location of points or positioning of figures. In addition to small groups, students worked in a whole class format before and after the videotaped segment. The inclusion of the whole class format enhanced the lesson. Before the videotaped segment, it allowed students to process the instructions and ask questions about the assignment. At the end of the lesson, it provided an opportunity for each group to communicate with the class and for students to report observations they made about the coordinates of different transformations.

The use of manipulative materials had a positive effect on the students' learning experience. First, the manipulatives increased the students' level of access to the mathematics at hand. Instead of simply performing the transformations on a worksheet or listening to a lecture about transformations, students were actively engaged in concrete explorations with the materials. For instance, the two girls in the video tried to reflect the isosceles triangle but could not figure out why points F and G's coordinates were the same. After focusing their attention on where point G was and where their assignment said it should be, they were able to figure out they needed to flip the figure over. Next, the use of manipulatives enhanced student conceptual understanding. This point is best illustrated by the opportunity the manipulatives provided for me to correct student misconceptions with translations. Until students engaged in the group activity, I did not realize they thought a translation could be performed while also turning or rotating the figure. However, when they began working in groups I immediately noticed students sliding the point of the figure to its given location, but they were also changing the orientation of the figure. As a

Example 3 (Continued)

result, I utilized class time during the whole group discussion to address this misconception.

Last, the use of manipulatives provided maximum abilities to assess student knowledge of the learning goals. By simply observing students, I determined their ability to perform a given transformation. I noticed whether students slid the figures the correct amount in the right direction, rotated the coordinate plane the correct amount, or flipped a figure accurately over the x-axis. Since the table contained many patterns, I could immediately discern whether the coordinates were accurate.

...

If I were given the opportunity to teach this particular lesson with these students again, I would make two improvements. One improvement would be to replace the recording page where students had to graph the transformation of the figures with a page of questions focusing on the specific patterns within the coordinates. By creating a page of questions, I could extend students' thinking beyond just transforming figures and recording the coordinates. I could target specific observations I would like them to make for certain transformations. For instance, I could ask them to observe the pattern created when a figure is reflected over the x-axis. Then, I could extend their thinking by asking them to predict what would happen to the coordinates if the original figure had been flipped over the y-axis. Another improvement would be to supply each group with a transparency of the recording sheet. When groups began presenting their result to the class, they filled in their coordinates and graphed the figures on the overhead at the front of the room. While groups were recording their data, valuable class time was lost. By using transparencies, groups could just place their data on the overhead and conserve class time.

Reviewing Your Writing

A key step in the writing process, regardless of the skill or experience of the writer, is to review your own writing objectively. Even professional writers can become so involved in their writing that they forget to include information that readers do not know. For some, reviewing with objectivity requires “distance,” or time away from the project.

TIP: If you have time, set your writing aside for a day (or more) and do not think about it. The next time you read it, you should have an easier time recognizing where you left out important information, if a transition is missing, or if something is unclear.

To ensure that your writing meets stated goals for the Written Commentaries and required forms, you may want to ask at least one other person to read your work. This person should be someone who will be thorough and constructive with his or her feedback. Your goal in having someone else read your work is to discover the things that need improvement that you may not be able to see. Explain the basic portfolio instructions to this person, and let him or her review the National Board Standards for the component. Ask your reader to keep in mind that the Written Commentaries and forms accompanying your evidence are all the information you will be able to give assessors about your practice and that you need feedback about this writing, not about you or your teaching practice. Have your reader mark places in the text where he or she would like to know more or has trouble understanding the content. This kind of feedback can help you pinpoint the passages that need additional detail or explanation.

You will find that different people provide unique insights about what might improve your writing. A teacher will give a much different critique than someone who is not a teacher. Both kinds of feedback are valid and important. All National Board assessors who might be looking at your portfolio component are teachers in your certificate area who have undergone extensive training in National Board scoring procedures. However, some individuals may be better able to see “skips” in logic or to notice areas that need further explanation than would a colleague from your school who may not perceive skips because he or she is already familiar with your teaching environment.

Once you have received comments from your reader or readers, understand that these are simply opinions and that it is up to you to decide how to use the information you have collected. You may find that you receive seemingly contradictory feedback; try reading your own writing from both points of view. Follow the suggestions that make sense to you. Sometimes a reader is unable to pinpoint the exact source of a problem in a piece of writing but knows that a problem exists. This feedback can be very helpful, pointing you to the areas that may need more attention. It may take some thought and work on your part to determine which changes are most beneficial to your writing. You may need to do several drafts of your writing to develop the version that you feel best demonstrates what you are trying to show about your teaching and that also demonstrates that the Standards for the component have been met.

The Written Commentaries are key parts of your portfolio components. Since you must provide your writing with your portfolio components to National Board by the deadline for portfolio submission, you may want to give yourself an earlier deadline for finishing your Written Commentaries. This timeline would allow sufficient time for you to review your own writing and to get feedback from others. Your goal should be to submit the best possible evidence and analysis of your teaching.

Recording Videos for Component 3

Why Your Videos Are Important

In Component 3: Teaching Practice and Learning Environment, you are asked to submit video recordings of your teaching. (Note: For the Music certificate area, you are asked to submit video recordings of your teaching for both Component 2 and Component 3.) The purpose of the videos is to provide as authentic and complete a view of your teaching as possible. National Board assessors are not able to visit your classes; therefore, video recordings are the only illustration of these key practices:

- how you interact with students and how they interact with you and with each other
- the climate you create in your instructional setting
- the ways in which you engage students in learning

Your videos convey to assessors how you practice your profession, the decisions you make, and your relationships with students. This section provides technical advice, guidelines, and helpful information about making effective video recordings of your teaching practice.

Before You Get Started

You must complete two key steps before you start video recording your class: obtain permission to video record and make sure your equipment is adequate for the task.

Permission

The National Board Student Release Form and Adult Release Form are available as PDF downloads from www.nbpts.org/national-board-certification/candidate-center. These forms are used to collect and document the signed permission given for all individuals who appear in your submitted photographs or are seen or heard in video recordings. You must use **National Board release forms**; district or school release forms will not be accepted.

You must secure permission from the parents or legal guardians of *all* students in your videos. You should secure permission for all other students in your class in the event you need these releases. You should do this even if you are making the video recordings only for practice, since you might later decide that a video is suitable for submission.

Ensure that parents understand that the video recordings are not about the students, but are intended for professional discussions with other teachers about the best ways to teach, and that the students will never be identified by their full names. If, for some reason, a student's parents refuse to grant permission, you will have to ensure that the student is seated out of the camera's range and is not heard.

You must have a signed Student Release Form for each student who appears or is heard on a submitted video recording, seen in a photograph, or whose work samples you submit, as well as a signed Adult Release Form for any adult who is included in your submitted video recordings or in a photograph. It is your responsibility to keep these release forms on file indefinitely in the event a question arises regarding these permissions. In addition, National Board may request a copy of these forms as documentation for your portfolio component.

Equipment

You need the following equipment, at minimum, to make video recordings of your class:

- video camera
- headphones to monitor the sound being recorded
- external omnidirectional boundary microphone to be placed near students and connected to the camera at some distance from the group (If such a microphone is not available with your video recording equipment, consult a local audio retailer or search the Internet for more information. Helpful hints on how to use this relatively inexpensive microphone are provided in "[Improving Audio Quality](#).")
- tripod
- extension cord

Use the best video recording equipment available to you when making your recordings. Your school may have good equipment that you are allowed to borrow to create higher-quality recordings.

Because it is often difficult to hear students speaking, make sure that the equipment you use has a sensitive microphone. Some handheld cameras have audio reception that is sensitive; others require a separate microphone. If you are filming small student groups, you will be circulating among groups and should carry a handheld microphone to record your voice and the voices of the students. See "[Improving Audio Quality](#)" for more on this topic.

Video Recording Your Class

In addition to providing some tips on the mechanics of recording, the strategies presented in this section can give you important practice in observing your teaching. This practice helps you reflect on the work samples you have decided to pursue as well as those you have not chosen. Observing your teaching lets you practice analyzing teaching in a way that you would not be able to without a video recording. With a video, you are able to watch what you do and when you do it as the lesson unfolds.

Until both you and your students get used to the experience, video recording may present an inauthentic view of your teaching. The first time you bring a video camera into your instructional setting, many students may not behave as they usually would. Some may become quiet and slide down in their seats, and others will play to the camera. Many teachers may find themselves inhibited (perhaps acting more formally, for example). For these reasons, it may be a good idea to practice making video recordings of your instructional setting to enable you to become familiar with the mechanics of video recording and to help both you and your students maintain a natural demeanor in front of the camera.

To get the maximum benefit from practicing your video recordings, you may wish to record different instructional sessions and varied teaching formats, including full-group instruction, cooperative-group work, and small-group instruction. These recordings should be made during the rostered class and not created during an off period or after school in order to show your regular teaching environment. (Exceptions: Music candidates are allowed to use after-school classes, and School Counseling and Library Media candidates may use after-school programs and non-rostered classes.)

If you choose to make practice video recordings, place the camera on a tripod or in a good vantage point (for example, on top of a file cabinet) where the camera view takes in the entire room. Record several sessions and watch these recordings alone so that you can

become accustomed to how you look and sound. You will also begin to notice what your students are doing and how their learning could be improved.

You must base your video practice sessions on the Standards for your certificate area since the video recording materials you eventually submit must reflect the elements of teaching practice that are judged essential to National Board's vision of accomplished teaching. These elements, based on the Standards, are what assessors look for in the materials you submit. The purpose of video practice sessions is to make you comfortable with video recording as a medium of conveying your practice. Because you may decide to use a practice session for your final submission, note the time limits and other requirements documented in the certificate-specific *Portfolio Instructions and Scoring Rubric* for Component 3.

The guidelines below apply to each of the video recordings you produce:

1. Decide on the sessions you plan to video record. Your practice exercises will be most beneficial if you record multiple sessions with as wide a variety of lessons and/or students as your teaching assignment permits. The classes you choose need not be the most advanced, but the topics of the lessons you record should be important for the students at their level of learning and likely to engage them.
2. You and your students must be seen and heard in both videos. It is important for assessors to be able to see and hear you and your students together, your students interacting with each other, your students' reactions to what you are doing, and their engagement in learning.
3. Scan the environment in which you plan to record your videos to avoid visual cues that reveal your or your students' names, your school or facility name, city, state, or other information included in "[Guidelines for Referring to People, Institutions, and Places.](#)"
4. Arrange for another teacher or a student to operate the video equipment at several practice sessions. Review video recording procedures with that individual, including the need to avoid stopping the camera or using the "fade in/out" feature of the camera (see "[Video Editing and Audio Enhancement Rules for Component 3](#)" for more information on acceptable and unacceptable editing).
5. Consider finding someone with the time and expertise to offer assistance in video recording your classes. Local college or high school students taking video courses or your school/district library media specialist may be available to help with recording and/or to offer advice.
6. Jot down a few notes that can help you recall a particular session when you are working on the analysis of your recording. At a minimum, note the following:
 - any particular instructional challenges offered by the students
 - the learning goals (lesson objectives) for the lesson
 - your opinion about the overall success of the lesson (i.e., were the learning goals achieved?) and the evidence you have as the basis for your opinion
 - a description of any instructional materials used in the lesson
7. Name the video recording file(s) to correspond with any notes you take on the lesson so that you can quickly and correctly match them.

Analyzing Your Video Recordings

To select which video recording you wish to submit, review all of your video recordings, keeping in mind the "[Video Analysis Questions](#)" below and the time requirements specified in the certificate-specific *Portfolio Instructions and Scoring Rubric* for Component 3. You may

want to watch your videos several times. In fact, you may wish to initially watch each recording with the sound turned off to provide greater awareness of your and your students' nonverbal behavior (for example, facial expressions and body language).

After you have chosen the video recordings that you want to use, develop your written analysis by answering each of the "Video Analysis Questions." Your responses should be straightforward and written in nontechnical language.

When you have finished answering these questions, review your writing, imagining that you do not know anything about the unit or the students you have selected. Is your writing clear? Can you follow your own thinking?

Video Analysis Questions

Video-recorded teaching sessions offer particularly strong evidence of a teacher's knowledge and ability. The following questions are designed to focus attention on aspects of teaching that are described in the National Board Standards. Use these questions to hone your skills as an observer and analyst of your own teaching:

- What is the extent of student involvement (e.g., are most students participating or are the same few students doing all the talking)?
- Are the students engaged in the lesson? How can you tell? What do students' facial expressions and body language tell you about your instruction?
- What kinds of questions do you ask? Can all your questions be answered with a single word? How long do you wait for responses? Do you ask students to explain and/or defend a particular answer or approach? Do you ask students to compare or evaluate alternative interpretations or strategies?
- Are there any opportunities for students to ask questions? How would you categorize the students' questions (e.g., do they indicate confusion and a need for clarification or understanding and extension)?
- What roles (e.g., expert, facilitator, co-learner) do you play in the video recording? Is each role appropriate for the situation?
- What kinds of tasks do you ask students to do? Do you capitalize on their previous knowledge and experiences?
- What instructional opportunities do you take advantage of and why?
- What instructional opportunities do you not take advantage of and why?
- What evidence do you see of the students taking intellectual risks? Does the climate of the instructional setting provide a safe environment for getting something wrong? Do students talk to each other as well as to you?
- Do you encourage students to take risks, to speculate, and/or to offer conjectures about possible approaches, strategies, and interpretations?
- Are the learning goals for the lesson achieved? Do you adjust the lesson so that your goals could be achieved by every student? What is the evidence for your answers, both in the video recording and from other sources?
- Explain how your design and execution of this lesson affect the achievement of your instructional goals. (Your response might include—but is not limited to—such things as anticipation and handling of student misconceptions, unexpected questions from students, unanticipated opportunities for learning that you captured, or your planned strategy and its outcomes in the lesson.)

TIP: These questions can also be used to guide discussion of video recordings in your professional collaboration group, if applicable.

Video Recording Tips

After you and your students have become accustomed to the presence of video equipment, you will want to produce quality video recordings that best reflect your work with students. Professional quality is *not* expected. The following technical tips are offered to help you provide the best quality in your portfolio components.

Improving Video Quality

Review the following suggestions for improving the quality of your video recording:

- If possible, use a tripod. Having the camera in a fixed position eliminates the wobbly effect of an unsteady hand.
- If writing on a chalkboard or whiteboard is an important part of the lesson, be sure that it is captured on the video recording and is legible. This may require refocusing the lens on the board. In addition, sometimes writing is legible to the eye but not to the camera, so you might have to move the camera to reduce the amount of glare on the board or use dark markers on chart paper taped to the chalkboard or whiteboard.
- In general, the camera should be pointed at the speaker. That is, when the teacher is speaking, the camera should be aimed at the teacher. When students are speaking, the camera should capture them. However, this general principle is difficult to achieve if the camera is positioned at the back of the room. A side position is more effective.
- You may need the camera person to follow you as you move from group to group to improve the sound. If you have to move the camera while recording, set the zoom lens to its widest setting to cut down on the shakiness of the recorded image.
- Increase the amount of light in the room to improve the video recording. Be sure to turn on all the lights and, if possible, open your curtains or blinds.
- Avoid shooting into bright light. If there are windows on one side of the room, try to shoot with your back to that light source.
- If you are using an older camera, you may have to adjust it for type of light source each time you shoot. Newer cameras may have a switch for recording in incandescent, fluorescent, or day light, or they may be completely automatic.

Improving Audio Quality

Audio quality is important and can be the most troublesome aspect of video recording in an instructional setting. If you or your students cannot be heard, it is difficult for assessors to recognize and score your performance. Even if you can be heard, clarity of conversation is extremely important for assessors because they need to interpret the content of the dialogue.

There are environmental and technical challenges when trying to get the best audio quality. Flat, echoing walls and multiple students talking simultaneously make good sound retrieval a challenge; even with professional recording equipment, it can be difficult to hear everything that students say. For these reasons, always test the sound quality when recording and keep the following tips in mind:

- **Before each recording session, check the equipment to be sure that all cables are secured** and, if necessary, use masking tape to hold them in place. Many audio problems are the result of faulty connections rather than poor equipment quality.

- **Eliminate noises that may interfere with recording.** If the microphone is picking up extraneous noise, consider turning off fans, air conditioners, fish tank filters, and so on while you are recording. Also, whenever possible, avoid recording when you must compete with outside noises, such as a lawn mower, recess, or band practice.
- **Have the person recording wear headphones** to monitor the sound and to address audio problems as they occur.
- **Keep the microphone close to the action.** The location of the microphone is key to capturing quality audio. Remember that the closer the microphone is to the action, the better the sound recording. If you are circulating among student groups, for example, and you want to capture your interactions with a group, consider carrying an external microphone. For whole-class recording, the microphone can be suspended from the ceiling in the center of the room.
- **Use an external omnidirectional boundary microphone.** This is the most effective way to enhance the sound quality of your video recording. The built-in microphone of most cameras is generally not adequate; because it is attached to the camera, it is frequently not close enough to the person speaking, so it often picks up background noise and misses important conversations. Most external microphones lie flat to pick up sound that reflects off large, flat surfaces, such as table tops or walls. For almost all video cameras, the external microphone is plugged into the "EXT MIC" jack on the camera. When plugged in, the built-in microphone on most newer cameras automatically turns off, and only the sounds from the external microphone are recorded. Be sure to check this feature of your camera before you begin recording.

The following table provides background on setting up an external microphone.

Equipment Needed	Setup
One omnidirectional boundary microphone	Plug one end of the adapter into the external-MIC opening on the video camera.
One heavy-duty extension cable	Plug the extension cable into the other end of the adapter. Plug the external microphone cable into the extension cable.
One adapter	Plug the external microphone into the external microphone cable. You are now ready to begin video recording.

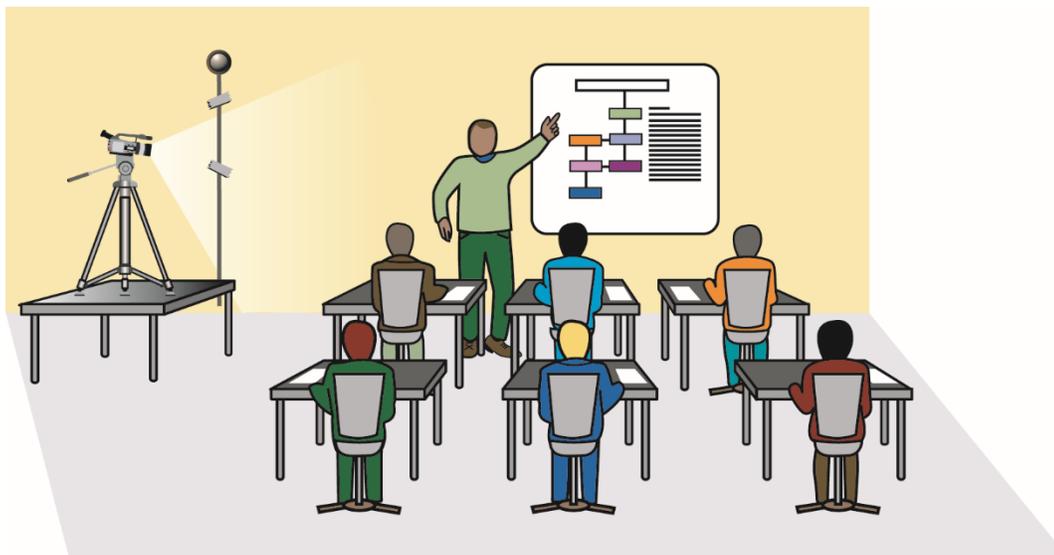
Whole-Class Video Recording

Whole-class video recording in National Board assessments is intended to show that you are effectively engaging the entire class, as a group, and that the entire class is involved in a discussion, again as a group. The video recording should show some interaction with specific students, but it is not necessary to zoom in on every student nor must every student in the group be shown in the video-recorded lesson.

The following are recommendations for video-recording whole-class teaching activities such as demonstrations, discussions, and so on:

- **Determine optimal camera placement.** It is optimal to place the camera on a tripod at the side of the room and, if possible, set it up high on a counter or table.
- **Set the lens to a wide angle.** It is important for assessors to be able to see you and your students together, your students' reactions to what you are doing, and their engagement in learning.

- **Avoid trying to follow a conversation back and forth between different people.** The camera always arrives late to the action.
- **Determine optimal microphone placement.** With masking tape, firmly attach the external microphone high on the front wall or on any other flat surface that faces toward the majority of speakers.



View of whole room showing best camera placement

Small-Group Video Recording

Small-group video recording in National Board assessments is intended to focus attention on student interaction in collaborative learning situations and on your facilitation of such learning as you move around the room. It is meant to capture a particular kind of situation: one in which you interact with many small groups as they pursue independent work.

The following are recommendations for video recording small-group activities such as discussions among several students, or groups of students, working on a project:

- **Determine optimal camera placement.** Plan ahead to determine the group of students you want to video record and then place the camera on a tripod, choosing a single vantage point from which you can record. Alternatively, the camera can be handheld and/or braced against a wall to steady the image.
- **The camera should be an appropriate distance from the group while showing as many participants as possible.** It is important for assessors to be able to see the facial expressions of students and to understand how you work with those students. Be sure that all of the people—you and your students—interacting in this small group can be seen and heard.
- **Adjust if the group is looking at or referring to an item.** Zoom in at the beginning of the conversation and maintain a close focus long enough for assessors to be able to understand the ensuing conversation. Then zoom out and keep the lens set wide.
- **Determine optimal microphone placement.** Carry the external microphone so that it is always closest to you and to the group with whom you are interacting. It is essential for assessors to clearly hear the participants' conversations.



View of a small group showing best camera and microphone placement

Video Editing and Audio Enhancement Rules for Component 3

Each video recording must be made during a single class period. Submitting each video recording in a continuous and unedited format may provide the most authentic representation of your teaching practice. However, each video recording may include **up to two edits** for the reasons listed below. The only allowable edits to the video are for the following reasons:

- moving a whole class into a different physical instructional setting such as a lab, a gymnasium, or outdoors
- responding to safety drills
- changing the battery in the video camera

EXCEPTION:

Music. For Component 2, no edits to the two brief videos are allowed for any reason.

No other edits to the video recording(s) are allowed. Not allowable edits include, but are not limited to, creating an introduction, adding captions, or using features such as fade in/fade out that detract from an authentic presentation of your instructional setting. You may NOT make edits to your video to remove student or announcement disruptions or interruptions, individual/quiet student work time, transitioning from whole group to small group instruction or vice versa, moving among small groups in different locations, assessment time, etc. Also, you may NOT make edits that combine video that was recorded across more than one class period. If a release form was not obtained from one or more students and/or adults, ensure that the individual(s) are not in camera view when recording your video(s); blurring their faces in the video is not an allowable edit.

If either of your video recordings includes one or two allowable edits for the reasons listed above, you **must** note the reason for each edit on the Instructional Planning Form. If you submit a video with more than two edits, only the portion prior to the third edit will be viewed and scored. If you submit a video that has an edit other than two of the allowable edits due to the reasons listed above, only the portion prior to the non-allowed edit will be viewed and scored.

Amplifying the sound to enhance the audio on a video is acceptable as long as the amplification of the audio does not conflict with the postproduction editing rules described above.

Submitting Your Video Recordings

Be sure to do the following before you submit your video-based portfolio components:

- Make sure your video recordings do not exceed the time limits stated. Assessors view only the video footage that is within the stated time limit.
- If you edited your videos as allowed for only the reasons listed above, make sure each video includes no more than two edits. Assessors will view and score only the portion of the recording prior to the third edit.
- If expressions or phrases in a language other than English that are important for an assessor to understand are included in your video, provide brief explanations of these expressions or phrases in the Written Commentary.
- If your video is in a language other than English (and/or the target language for World Languages), you must provide a written English translation that includes any necessary student identifiers (but not students' names). Your translation does not count toward your page totals.
- Convert your video into a file format that meets the electronic portfolio management system requirements: .flv, .asf, .qt, .mov, .mpg, .mpeg, .avi, .wmv, .mp4, and .m4v.
- Compress the size of your video file, if necessary. The recommended file size is 200 MB to 300 MB. Refer to the Video Conversion & Compression Guide at www.nbpts.org/national-board-certification/candidate-center to download free software with instructions.
- Play back your final file before uploading to ensure it can be viewed by assessors and to check the audio quality. You and your students must be seen and heard in both videos. Failure to meet these requirements will make your portfolio component unscorable.

Analyzing Student Work

The resources and materials in this topic give you guidance on important skills and how to systematically analyze all the information students produce about who they are, what they know, and the state of their learning. The activities in this topic offer a framework for thinking analytically about student work—particularly student responses to assignments, class work, assessments, and other instructional material—and for writing down your analytical insights about your students and their work.

TIP: Develop your own repertoire of questions and strategies to help you understand and analyze the work that students produce. Also develop rich and interesting opportunities for student responses—creating both occasions for response and the prompts or problems you can pose for students as they explore and master new ideas.

Why Analysis of Student Work Is Important

As described in "[Writing about Teaching](#)," your Written Commentary about students and their work is a critical component of the assessment materials you are submitting. Your analysis of your teaching practice is an essential element of assessing your knowledge and ability as an accomplished teacher.

Because this kind of analysis and writing may be unfamiliar to teachers, some practice is likely to be both helpful and reassuring. You may learn about the depth and breadth of your

perceptions about student work once you begin to focus analytically, and, in turn, student work can become an even more interesting and critical resource for pedagogical information.

About Analysis

To properly analyze student work, begin by making a detailed description of the evidence you observe. You need this evidence to be able to ask insightful questions and to make knowledgeable connections regarding your hypotheses about student learning. You must go beyond describing what you have seen to provide an analytical examination of instruction.

If you are also reflecting on your practice as a part of that analysis, a further prewriting step is required: as you connect what you did with what you see in the evidence of student learning, you must examine the effectiveness of your actions, your possible options, and the potential effects of those options.

This essential cognitive work produces an analysis that serves to broaden and deepen your practice and thus enhances future student learning. Step-by-step activities that take you through the analytical process are outlined below. You can apply all of the following activities to analysis of written student work, but the principles also apply to all instructional materials and can be helpful when used in conjunction with the video analysis questions in "[Analyzing Your Video Recordings](#)."

Practice Activities

Following are descriptions of some optional activities you can engage in to help refine your skills in writing analytically about your teaching practice.

Activity 1: Observation and Description

Choose one of your class assignments that you thought elicited considerable information about your students' understandings. Choose three student responses to the assignment. Be sure to choose students who each pose a different instructional challenge to you as a teacher. Select student responses that are substantial enough to support the level of analysis required in the Written Commentary. Unless otherwise specified in the certificate-specific *Portfolio Instructions and Scoring Rubric* for the component, these are to be each student's individual response, not a response completed as part of a group activity.

Look carefully at the assignment that elicited the three student responses. Answer the following questions with specific details about the assignment (the word "assignment" is used here generically to mean an occasion, a prompt, or another device for eliciting substantive student response):

- What was the goal of this assignment?
- Why is this an important goal for student learning of the subject?
- How was this assignment connected to other activities, in or out of class?
- What subject-specific concepts did students need to know in order to complete this assignment successfully?
- What misconceptions would you predict might appear in student responses to this assignment?
- In what ways did you intend for this assignment to extend students' thinking about the topic?
- What did each student do correctly and/or incorrectly? (Student 1, 2, 3)

For each of the students you have chosen, jot down brief descriptions of the following features of the response to your assignment:

- What was the most striking feature of each response? (Student 1, 2, 3)
- What were the patterns in each response? (Student 1, 2, 3)
- What misconceptions does each response reveal? (Student 1, 2, 3)
- What insights (if any) does each response reveal? (Student 1, 2, 3)
- What feedback did you give each student? (Student 1, 2, 3)

Activity 2: Interpretation: What Does Each Student’s Response Tell You?

Using the *same* three student responses, jot down answers to the following questions for each student. Here the emphasis is on your interpretation of what you see.

Ask yourself these questions:

- How can you interpret the response from each student?
- What frame of reference is available to you to aid in that interpretation?
- What are the cues the student and the work give you?
- Using what you know about the connections that need to be made in order to understand ideas in particular domains appropriate to the content area, what does each student’s response tell you?
- How can your colleagues assist you in your interpretive work?

For each of the students you have chosen, jot down your interpretation based on each student’s response to your assignment:

- What is each student’s most essential misunderstanding or difficulty? (Student 1, 2, 3)
- How does each student’s response fit into what you already know about this student’s understandings and performance? Be specific. (Student 1, 2, 3)
- In two sentences for each student, describe what each learned from this assignment, judging from the responses. (Student 1, 2, 3)
- What does each student need to do next to move his or her understandings forward? (Student 1, 2, 3)

Activity 3: How Does Each Student’s Response Illuminate Your Practice?

In this activity, use what you have observed of each student’s work—and how you have interpreted those observations—to illuminate your goals and your strategies for reaching those goals. The focus of this analysis is the degree to which the student’s work shows that your goals for the assignment, and for your instruction prior to the assignment, were met.

- For each of the three students, write a brief but very specific diagnosis of the degree to which this student work shows that your goals for the assignment were met. (Student 1, 2, 3)
- Explain briefly how your instruction prior to the assignment was designed to prepare these students to complete this assignment successfully.
- For each of the three students, give your best diagnosis of the performance they have exhibited on this assignment. What parts of your instruction and/or preparation for this assignment do you think need reteaching or reinforcement for each student? (Student 1, 2, 3)

- Given each student's performance on this assignment, what goals should you set for each of these students in the immediate future and, also, in the more distant future? (Student 1, 2, 3)
- What was your feedback strategy for each of these students? (Student 1, 2, 3)
- Why did you choose that strategy for these particular students? (Student 1, 2, 3)

Activity 4: Reflection

The final stage in analyzing student responses is to reflect on your practice. It is in this final stage that you ask yourself this: in light of what the student responses have told you about the students' understandings, difficulties, misconceptions, and gaps, what might you do next (and/or differently or additionally) for these students? It is the habit of reflecting on decisions made in the midst of the teaching day that distinguishes the analytical teacher. And it is reflective practice that moves accomplished practitioners constantly forward; as you become your own observer and coach, you can recognize your accomplishments in making choices that advance student learning in effective ways. You can also encourage yourself to try yet another strategy when you are not satisfied with students' progress.

The following questions are designed to help you reflect on your practice with the three students who have been the focus of these activities. However, these questions could be asked at the end of every teaching day about each class you teach. Once you begin to think in these terms, you need not write down the answers. You will find that the habit of reflection generates so many new ideas and strategies that you are hardly able to find the time to try them all.

Look back at the three student responses to your assignment. Briefly answer each of these questions about these students, their responses, and your own sense of your practice:

- What did each student learn from this assignment and the instruction that preceded it? Be specific. (Student 1, 2, 3)
- What did you learn from each student's response? (Student 1, 2, 3)
- What would you do differently in light of the student responses to this assignment?
- In light of your analysis, reevaluate your feedback strategies. Would you alter them in any way? If so, how and why? If not, why not?
- Would you give the same assignment again? If so, would you prepare students for it differently? If so, how? If not, what assignment would you give in its place and why?

Reviewing Your Work

As you work on completing your portfolio components, you should reflect on ways to improve your responses by asking yourself these questions:

- Does the portfolio component, taken as a whole, accurately represent my teaching?
- Are there important aspects of my teaching that the portfolio component does not capture?
- Could I select student work samples or video recording opportunities that would better fit the guidelines given in the *Portfolio Instructions and Scoring Rubric*?
- Do I address each of the questions listed in the Written Commentary or form instructions?
- In what ways could I improve my responses to the questions in the *Portfolio Instructions and Scoring Rubric*?

- In what ways might my responses be incomplete or unclear to someone who understands my teaching only by the work I am submitting in this portfolio component?

If you have trouble answering these questions, a colleague or mentor may be able to help you assess your work.

Formatting, Organizing, and Submitting Your Portfolio

It is essential that all submissions be organized and assembled as required by National Board. Specification and formatting guidelines must be followed and the appropriate forms must be completed and submitted with evidence as indicated in the certificate-specific *Portfolio Instructions and Scoring Rubric* for each component.

Formatting Your Evidence for Electronic Submission

You will develop evidence using the format requirements in the certificate-specific *Portfolio Instructions and Scoring Rubric* for each component and will upload your portfolio components in electronic format to the electronic portfolio management system. Be sure to pay close attention to the stated page limits and video time limits. The following are general formatting guidelines:

- **Forms.** All forms required for submitting materials are available as word-processing files that you can download from www.nbpts.org/national-board-certification/candidate-center or as scannable pages in the certificate-specific *Portfolio Instructions and Scoring Rubric* for each component. Follow these guidelines when using the forms for submission:
 - Do not delete or alter any original text (including the header, footer, title, directions, and prompts) to gain more space to write your responses. Both the original text and your responses are included in the total page count allowed. Assessors will read only up to the allowable page limit. Information on pages exceeding the maximum will not be considered in the scoring of your submission.
 - Follow the format specifications for font and line spacing provided in the directions of each form. Do not use a smaller font or narrower margins in an attempt to fit in more information. Assessors will ignore any content after the point equivalent to the specified maximum length.
 - Submit your forms as Microsoft Word, Open Office, or PDF files.
 - If you scan completed forms as graphic files, insert them into word-processing files for submission.
- **Written Commentaries.** Written Commentaries are composed using word-processing software. Submit your work as Microsoft Word, Open Office, or PDF files. Follow the format specifications for font, line spacing, margins, and page count provided in the certificate-specific *Portfolio Instructions and Scoring Rubric* for each component. Do not use a smaller font, single spacing, or narrower margins in an attempt to fit in more information. If content has been manipulated to fit, assessors will not read anything beyond the equivalent to the specified maximum length. When preparing written materials for your portfolio components, be sure to proofread your writing for spelling, mechanics, and usage.
- **Videos.** Your videos must be submitted as flv, asf, qt, mov, mpg, mpeg, avi, wmv, mp4, or m4v files. You must compress large video files before submission. Refer to the *Guide to Electronic Submission* for complete video submission requirements, including acceptable file sizes.

Each video must not exceed the time limit or include non-allowed edits as described in the certificate-specific *Portfolio Instructions and Scoring Rubric* and the "[Video Editing and Audio Enhancement Rules for Component 3](#)" section of this document. Assessors will view and score the video only up to the maximum time limit or non-allowed edit. In instances where a video is too long or contains a non-allowed edit, assessors will still

read the corresponding Written Commentary. However, they will be unable to corroborate with video evidence any part of your Written Commentary that touches on events that occurred beyond the time limit or non-allowed edit.

- **Other types of evidence.** There are other evidence types that require you to submit artifacts and evidence together with forms that provide additional detail. You may have gathered this evidence as both hardcopy and electronic files. The evidence must be organized together with the appropriate forms (where needed) and submitted as Microsoft Word, Open Office, or PDF files according to the certificate-specific *Portfolio Instructions and Scoring Rubric* for each component.
 - Do not reduce full-sized pages of evidence (e.g., handouts, documents created using a word processing program) to fit more than one piece of evidence onto a single 8.5" × 11" page. Do not use a smaller font or narrower margins in an attempt to fit in more information. **If content has been manipulated to fit, assessors will not read anything beyond the equivalent to the specified maximum length.**
 - If instructional materials contain Web pages, each 8.5" × 11" Web page print out or PDF counts as **1 page** toward your page total.
 - If materials were created using presentation software (e.g., Google Slides, Microsoft PowerPoint) to project for the class, you may format up to six slides on one 8.5" × 11" page, which counts as **1 page** toward your page total. Be sure any text on the slides is large enough to be fully legible without magnification of the 8.5" × 11" page (original font size no smaller than 36 points) and that there is adequate spacing between text to allow assessors to be able to easily read the slides.
 - If submitting smaller items (including photos and images, **but not text**), you may format up to six smaller items on one 8.5" × 11" page, which counts as **1 page** toward your page total. In determining the number of smaller items to include on a single page, keep in mind that each of the items must be large and clear enough for assessors to be able to view relevant details.
- **Evidence that is too small to read or exceeds page limits will not be considered by assessors.** You must follow the instructions presented here and in the specific component instructions.
- **Do not include copyrighted materials with your submission.**

A signed release form is required for each student or adult whose images, work, self-assessments, and/or communications appear in your portfolio materials. These release forms are available as PDF downloads from www.nbpts.org/national-board-certification/candidate-center. Retain completed student and adult release forms for your records indefinitely; do not submit them with your evidence.

For instructional documents and helpful tips for formatting your materials, including the *Guide to Electronic Submission*, visit the National Board ePortfolio page (www.nbpts.org/national-board-certification/candidate-center).

Using Forms to Organize and Describe Your Evidence

All forms required for submitting materials are designed to help you ensure consistent organization of your portfolio and gather important information.

You may complete these forms in two ways depending on the content of the form:

- For forms that require descriptions or explanations of evidence, you must download the word-processing files available at www.nbpts.org/national-board-certification/candidate-center, fill them out electronically, and then upload the electronic file or scanned image with the associated evidence to the electronic portfolio management system.

OR

- For forms that do not require descriptions or explanations of evidence and that are used solely to identify submitted evidence, you may print out the forms from the *Portfolio Instructions and Scoring Rubric*, fill them out by hand, scan the completed forms with the associated evidence, and then upload the electronic file to the electronic portfolio management system.

Important: When using a form to submit evidence, do not delete or alter any original text on the form (including the header, footer, title, directions, and prompts) to gain more space to write your responses. Both the original text and your responses are included in the total page count indicated on the form. **Pages exceeding the maximum will not be scored.**

Confirming Forms

You can confirm that you have all the appropriate forms—and that you are submitting them properly—using the following resources in the certificate-specific *Portfolio Instructions and Scoring Rubric* for each component:

- **Electronic Submission at a Glance.** This chart provides an overview of the submission requirements for the component for your certificate area.
- **“Forms” section.** The forms required for submitting the portfolio component are included after the Electronic Submission at a Glance.

Organizing

Prior to uploading your components into the electronic portfolio management system, be sure that all your portfolio materials are clearly labeled and organized into the appropriate files. Use the component-specific Electronic Submission at a Glance for your certificate area as your guide to assembling materials for each portfolio component.

Reviewing the following general questions can remind you of where to look for mistakes, so before submitting your portfolio for scoring, be sure to ask yourself these questions:

- Have all requested materials been included?
- Have the proper forms been completed and included?
- Are all materials grouped and ordered correctly within the specified number of files?

Better than finding mistakes is avoiding them altogether. The following reminders can help.

Feature	Review Guideline	IMPORTANT!
Class composition	For most certificate areas, confirm that at least 51% of the students in your class(es) are within the stated age range for the certificate area during the period in which you collect evidence for your portfolio. (Note: For Exceptional Needs Specialist, Literacy: Reading–Language Arts, and School Counseling, this requirement varies; see <i>Choosing the Right Certificate</i> at www.nbpts.org/national-board-certification/candidate-center for more information about your certificate area.) The class or groups featured in both Component 3 videos must meet this requirement also.	If the age range requirement is not met, your component will not be scorable and you will receive a code of NS on your score report.
Time period	For Component 2 and Component 3, verify that you taught or counseled the class and/or students featured in the component within the 12-month time frame prior to the opening date of the ePortfolio submission window. Likewise, be sure the evidence to be submitted falls within the same 12-month time frame. For Component 4, the class/group and assessments that you feature must come from the 12-month time frame prior to the opening of the ePortfolio submission window. However, the identification of a professional learning need and a student need and actions taken to address those needs may occur up to 24 months prior to the opening date of the ePortfolio submission window, but evidence of the impact on student learning of the actions taken to address the needs must be gathered from no more than 12 months prior to the opening date of the ePortfolio submission window.	If you include classes, students, and evidence older than the specified time frame, your component will not be scorable and you will receive a code of NS on your score report.
Variety of evidence	The evidence submitted for Component 2 and Component 4 and one of the two video recordings submitted for Component 3 may be from the same unit of instruction, but must be from different lessons that have unique lesson goals and objectives—even if all evidence is drawn from a single instructional setting. The two videos for Component 3, however, must show different units of instruction. Likewise, the individual students whose work is featured and any assessments and/or examples of student work submitted for Component 2 must be different from those submitted for Component 4.	Videos representing the same unit or lesson will limit the evidence that assessors will score.
Formatting and specifications	Follow formatting guidelines carefully. See the certificate-specific <i>Portfolio Instructions and Scoring Rubric</i> for each component for complete format and submission requirements.	Formatting incorrectly can make all or part of submitted evidence unscorable.

Feature	Review Guideline	IMPORTANT!
Student work samples	In each Written Commentary, confirm that student work samples are the samples that that lesson elicited. Use the appropriate forms and mark the student work samples with student identifiers (e.g., “Student A,” “Student B”). Omit student last names.	If you include the wrong Written Commentary with your student work samples, that Written Commentary will be used to score your portfolio component.
Video recordings	<p>Review the content of your video recordings to ensure that activity can be seen and heard. Be sure your video recordings include no more than two allowable edits for the reasons specified in the <u>“Video Editing and Audio Enhancement Rules for Component 3”</u> section. If either of your video recordings includes one or two allowable edits, you must note the reason for each edit on the Instructional Planning Form.</p> <p>Verify that the lesson you described in the Written Commentary is the same lesson that you included in your video evidence.</p> <p>For Music Component 2 only</p>	<p>If you submit a video with more than two edits, only the portion prior to the third edit will be viewed and scored. If you submit a video that has an edit other than the two allowable edits specified in the <u>“Video Editing and Audio Enhancement Rules for Component 3”</u> section, only the portion prior to the non-allowed edit will be viewed and scored. If you choose to submit a video recording with a non-allowed edit, you will limit the evidence that assessors will score.</p> <p>If you include the wrong Written Commentary with a video-based component, that Written Commentary will be used to score your entry.</p> <p>If you submit a video for Component 2 with any edits, only the portion prior to the first edit will be viewed and scored.</p>
Completeness of portfolio component	<p>Missing materials: It is your responsibility to make sure that your portfolio component materials are complete when they are submitted. You will not be notified of any missing critical materials.</p> <p>Electronic Submission at a Glance: This checklist for each component details the required submissions for your certificate area and can help you check the completeness of your submission.</p> <p>Extraneous material: Do not include materials that are not required as part of a component as this may impede the assessors’ ability to identify your actual component submission.</p>	<p>You will not receive a score for any component that is missing in its entirety or lacking critical materials (e.g., a Written Commentary, video recording, or student work sample).</p> <p>You will not be able to add to or edit a portfolio component after it has been submitted for scoring.</p> <p>Candidates with incomplete score profiles will not achieve National Board Certification.</p>

Feature	Review Guideline	IMPORTANT!
Important forms	<p>Make sure you have completed and retained Student and Adult Release forms for anyone who appears or is heard in a video recording or seen in a photograph or any student whose work is part of your student work samples, giving you their permission to use their image, voice, and/or work. Keep these completed release forms—copies and originals—with your records.</p>	<p>It is your responsibility to keep all release forms on file indefinitely in the event a question arises regarding these permissions. In addition, National Board may request a copy of these forms as documentation for your portfolio component. Do not submit release forms with your portfolio.</p>
English translation	<p>If you are submitting student work samples or videos in a language other than English, you must provide a written English translation for that evidence.</p> <p>The translation must include any necessary student identifiers (but do not include students' names). Note that the pages of your translation do not count toward your page totals.</p> <p>Note: This guideline does not apply to World Languages. For English Language Arts, submitted student work samples and videos must be in English only.</p>	<p>Failure to provide a translation or to properly label your translated submission will mean that your response will not be scored.</p>

Uploading and Submitting Your Evidence of Accomplished Teaching

After formatting and organizing materials for your portfolio components, you must upload and submit your portfolio components to the electronic portfolio management system. Refer to the *Guide to Electronic Submission* for step-by-step instructions on uploading and submitting your components for scoring.

Avoiding the Most Common Submission Errors

Review your work carefully before submitting it for scoring. You will not be able to change any of your work once it has been submitted. Read the following chart to avoid the most common errors that can make your portfolio not scorable. Receiving an NS for your submission will result in retake fees and a delay of your consideration for certification.

Questions to Review Before Submitting Your Portfolio	
<p>Is your evidence complete and formatted correctly?</p>	<p>It is critical that your evidence of accomplished teaching match the format specifications and page limitations outlined in the portfolio instructions. Material missing from your submission will cause it to be unscorable. This includes Written Commentary, student materials, video recording, documentation, and so on.</p> <p>Avoid this error by using the Electronic Submission at a Glance in the certificate-specific <i>Portfolio Instructions and Scoring Rubric</i> for each component to verify the format and content of your evidence prior to uploading your files to the electronic portfolio management system.</p>
<p>Did you play back your video to test the recording quality?</p>	<p>After uploading your video file to the electronic portfolio management system, and before submitting for scoring, play the video recording to ensure the picture and sound are clear and to verify that you are identifiable in the video.</p>
<p>Did you answer the guiding questions and prompts in your commentaries?</p>	<p>In your Written Commentary and descriptions of evidence such as those found on forms accompanying student work, instructional materials, etc., be sure to completely address the information being sought through the guiding questions and prompts. These commentaries and descriptions are your opportunity to provide insight to assessors on how you have fulfilled the goals of the assessment.</p>
<p>Does your class meet the age and content requirements for the certificate area?</p>	<p>For most certificate areas, at least 51% of the students in the class or classes that you use to complete your portfolio components must be within the stated age range for the certificate area during the period in which you collect evidence for your portfolio. (Note: For Exceptional Needs Specialist, Literacy: Reading–Language Arts, and School Counseling, this requirement varies; see <i>Choosing the Right Certificate</i> at www.nbpts.org/national-board-certification/candidate-center for more information about your certificate area.) Failure to use an appropriate class will make your portfolio component unscorable and you will receive a code of not scorable (NS) on your score report.</p>
<p>Have you ensured that you have not included any last names or copyrighted materials?</p>	<p>Remember, all last names on any documents you submit must be redacted. Do NOT leave personally identifiable information on any documents you submit. You may not include any copyrighted materials with your submission. While failure to follow these guidelines will not make your portfolio unscorable, there are potential confidentiality and legal implications for not adhering to these guidelines.</p>

Produced for

NATIONAL BOARD

for Professional Teaching Standards®

by



Pearson

© 2019 National Board for Professional Teaching Standards. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording, or any information storage or retrieval system, without permission in writing from the publisher.

The National Board for Professional Teaching Standards logo, National Board for Professional Teaching Standards, NBPTS, National Board Certified Teacher, NBCT, National Board Certification, Accomplished Teacher, Profile of Professional Growth, and ATLAS Accomplished Teaching, Learning and Schools are registered trademarks or service marks of the National Board for Professional Teaching Standards. Other marks are trademarks or registered trademarks of their respective organizations.

The National Board for Professional Teaching Standards, Inc. has been funded in part with grants from the U.S. Department of Education and the Bill & Melinda Gates Foundation. The contents of this publication do not necessarily represent the policy of the U.S. Department of Education or the Bill & Melinda Gates Foundation, and you should not assume endorsement by the Federal Government or the Bill & Melinda Gates Foundation. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the sponsors.

Prepared by Pearson for submission under contract with the National Board for Professional Teaching Standards®.

Pearson and its logo are trademarks, in the U.S. and/or other countries, of Pearson Education, Inc. or its affiliate(s).



ePortfolio Resources

ePortfolio Resources

Guide to Electronic Submission	5
ePortfolio FAQs	21
Scanning and Submitting Your Hard-Copy Evidence	26
Tips for Submitting Your Evidence as PDF Files for Microsoft Word Users	27
Tips for Submitting Your Evidence as PDF Files for Mac Users	30
Recommended Video Formats and Settings	33
Video Conversion and Compression Guide for Windows Users	35
Video Conversion and Compression Guide for Mac Users	37
Video Exporting Guide for Movie Maker	39
Video Exporting Guide for iMovie	40
Video Exporting Guide for iPhoto	42
Tips for Mac Users	43
Troubleshooting Tips for the ePortfolio System	45

Further copies of these resources, as well as video tutorials, can be found at <http://boardcertifiedteacher.org/eportfolio>

Guide to Electronic Submission

Submitting your evidence of accomplished teaching using the ePortfolio system

NATIONAL BOARD

for Professional Teaching Standards®

Contents

Key Features of Electronic Submission	1
Getting Started	2
Obtaining Your Voucher Code(s) to Access the ePortfolio System.....	2
Registering and Entering Your Voucher Code(s) to Submit Evidence Online ...	2
Agreements	3
Formatting, Uploading, and Submitting Materials	4
Formatting Your Evidence	4
File Naming Conventions	5
Uploading and Submitting Your Materials	5
File Labeling Feature	6
Policies and Guidelines	9
Changing Certificate or Portfolio Entry Selections.....	9
Submission	9
Recommended System Specifications	10
Sample Electronic Submission at a Glance Charts	11
Sample Electronic Submission at a Glance for First-Time, Returning, and Retake Candidates.....	12
Sample Electronic Submission at a Glance for Renewal Candidates	13

Key Features of Electronic Submission

Whether you are seeking National Board Certification® or renewing an existing certificate, you will use the ePortfolio system to upload your submission(s) for evaluation. We encourage you to read this publication carefully and refer to the National Board website (www.nbpts.org/national-board-certification/candidate-center) and any emails you have received from the National Board for up-to-date information.

The ePortfolio system has built-in features to facilitate your online submission process, including

- online system tutorials to guide you through the process of uploading your submissions;
- tracking capabilities so that you can easily monitor your progress;
- temporary file management features to upload, review, and remove/replace draft documents and videos until they are submitted or until the submission deadline, whichever comes first;
- an automated process for transcoding uploaded files;
- a feature that allows you to label each file for a part that requires multiple files to be uploaded.

Getting Started

The ePortfolio system will be available beginning April 1, 2020. To begin the online submission process using the ePortfolio system, you will

- obtain your voucher code(s) to access the system;
- register and enter your voucher code(s) to submit your material online.

View the online training videos available at www.nbpts.org/national-board-certification/candidate-center/eportfolio-submission for step-by-step instructions to register your voucher codes, upload evidence, and submit your material.

Obtaining Your Voucher Code(s) to Access the ePortfolio System

When the submission window opens, voucher codes will be emailed to all National Board Certification and renewal candidates, and to Maintenance of Certification (MOC) pilot study participants who have selected to submit a portfolio during the current assessment cycle. These voucher codes are required in order to access the ePortfolio system. If you are a candidate and cannot locate the email with your voucher code(s), you can access your code(s) from your National Board account after the ePortfolio submission window opens. Simply log in to your account and select the appropriate cycle year. Voucher code(s) are displayed on your home page.

VOUCHER CODES ARE PORTFOLIO-ENTRY SPECIFIC AND UNIQUE TO YOU. Do not share them with anyone else.

Important: If you are a candidate, make sure your National Board account is up to date with your preferred email address. Be sure to add NBPTSReg@pearson.com to your safe sender list to ensure receipt of your voucher code(s) and other important notifications.

Registering and Entering Your Voucher Code(s) to Submit Evidence Online

To register and begin using the ePortfolio system, follow this five-step process:

1. **Access** the ePortfolio page on the National Board website (www.nbpts.org/national-board-certification/candidate-center/eportfolio-submission).
2. **Click** the link to the ePortfolio system.
3. **Click** "Register" in the top navigation of the ePortfolio website, then click "Register" under the appropriate heading:
 - First-time and returning candidates
 - Renewal candidates
 - Maintenance of Certification (MOC) Pilot Study
4. **Follow** the instructions to create an account. If you are a candidate, be sure to enter your name as it appears in your National Board account. If you registered and created an account in the ePortfolio system in a previous year, use your existing login credentials to sign in. Your username was your email address at the time. You may use the "Forgot Password?" feature to reset your password if necessary.

Important: Do not create an ePortfolio account using a shared email address. **Your email address must be unique to you and used only by you.**

5. **Enter** your voucher code(s) in the text box. The system will validate your code(s) and display the portfolio entries for which you are registered. **Note:** You will be able to submit evidence only for the components you have purchased.

Agreements

In order to successfully register your voucher code(s), you will be required to read and agree to the terms for using the ePortfolio system. The text of these agreements will be made available to you on the National Board ePortfolio website when registration opens so that you may read the agreements prior to registering.

Formatting, Uploading, and Submitting Materials

Formatting Your Evidence

Develop evidence using the Standards and portfolio instructions for your certificate area.

Submit your material based on these key evidence types:

- **Forms.** Submit the required forms for each component:
 - Forms that require you to enter information about the evidence you are submitting: Complete these by typing into the designated areas on the form.
 - Forms that identify included evidence (for example, student responses and instructional materials): While you may not delete or alter any original text on the forms (including the header, footer, title, directions, and prompts), you can format the document so that the header and footer appear only on the form and not the evidence you attach (in Microsoft Word, insert a section break at the bottom of the form; then on the first evidence page, edit Header/Footer, unclick "Link to Previous," and delete the header/footer); however, removing headers and footers from the evidence you submit is not required.

You may submit your forms as Microsoft Word, OpenOffice, or PDF files. If you scan forms as graphics files, you may insert them into word-processing files for submission.

- **Written commentaries.** Written commentaries and written reflections are composed using word processing software. When creating these files, you must follow the format specifications found in the portfolio instructions for your certificate area, including the font size, margin specifications, and maximum page length allowed. During the upload process, system transcoding may result in your commentary running onto an additional page. The material on the additional page will be evaluated as long as the source document you uploaded falls within the maximum page length allowance. Submit your work as Microsoft Word, OpenOffice, or PDF files.
- **Video recordings.** Video recordings of your classroom teaching will be uploaded directly into the ePortfolio system. Your video recordings must adhere to the format specifications outlined in the portfolio instructions for your certificate area and must be submitted as flv, asf, qt, mov, mpg, mpeg, avi, wmv, mp4, or m4v files. If your video recordings consist of multiple segments, it is important that you submit only the segment(s) allowed for your portfolio entry.

Although there is no limit on the number of megabytes (MB) uploaded for an entire portfolio, the ePortfolio system has a 500 MB file size limit for each file that is uploaded. Therefore, you must compress larger video files before submission. Video compression tools can help you easily reduce video file size without impacting the length of your video. Please follow the instructions for video compression found on the Help page of the ePortfolio system.

- **Other types of evidence.** There are other evidence types that require you to submit artifacts and evidence together with forms that provide additional detail. You may have gathered this evidence both in hardcopy and as electronic files. The evidence must be organized together with the appropriate forms and submitted as Microsoft Word, OpenOffice, or PDF files.

File Naming Conventions

There is no required naming convention for the files you will upload to the ePortfolio system. We encourage you to use a naming convention that will help you easily identify and organize the various parts of your submission. **Note:** To avoid upload issues, file names should not include special characters.

Important: You may be required to combine some materials into a single file for submission.

For first-time, returning, and retake candidates, refer to the **Electronic Submission at a Glance** chart in the portfolio instructions for your certificate area for a list of the materials you will need to submit. For renewal candidates, refer to the chart in the Profile of Professional Growth instructions.

Sample charts are also provided at the end of this document.

Uploading and Submitting Your Materials

It is important that you begin the upload process early. Uploading your materials may take multiple days to complete. Follow the steps below to upload and submit your materials:

1. **Access** the ePortfolio page on the National Board website (www.nbpts.org/national-board-certification/candidate-center/eportfolio-submission).
2. **Click** the link to the ePortfolio system.
3. **Log in** to the ePortfolio system. The Portfolio Entry Summary page is displayed (see the sample screen shot below that will be displayed for a National Board Certification candidate submitting Component 2: EA/English Language Arts).

The screenshot displays the National Board for Professional Teaching Standards website. The header includes the logo and tagline. The main content area shows a dropdown menu for 'Component 2: EA/English Language Arts'. Below this, there is a 'Portfolio Entry Summary' section with a 'Submit' button. The summary shows 'Component 2: Differentiation in Instruction' with '0 of 4 Parts Ready to Submit'. A table lists four parts: Part A (Contextual Information Sheet(s)), Part B (Written Commentary), Part C (Student A Packet), and Part D (Student B Packet), all with 'Not Started' status and a 'Start' button.

Start	Part A: Contextual Information Sheet(s)	Not Started
Start	Part B: Written Commentary	Not Started
Start	Part C: Student A Packet	Not Started
Start	Part D: Student B Packet	Not Started

Copyright © 2019 Pearson Education, Inc. or its affiliate(s). All rights reserved.
 Evaluation Systems, Pearson, P.O. Box 226, Amherst, MA 01004
[Terms of Use](#) | [Privacy Policy](#) | [Trademarks](#) | [Contact Us](#)

4. **Click** "Start." You will be prompted to upload your electronic file(s).
5. **Click** "View Evidence" to review your evidence file(s) for accuracy. It is important that you review your material in its entirety.

Important: The National Board will not audit or inventory your materials. **You are required to verify the accuracy of your materials prior to submission.**

6. **Mark** "Ready to Submit" when your evidence file for each part has been uploaded and reviewed. A progress area for each submission will indicate when all the parts are complete.
7. **Click** "Submit" to submit your work for each portfolio entry for which you are registered. Once your work has been submitted for evaluation, your submission is final and you will only have read-only access to your file(s).

Important: If you leave files in the system that you have not yet submitted, ePortfolio will automatically submit these files at the close of the submission window.

File Labeling Feature

The file labeling feature will be available for only the following parts in ePortfolio:

- Component 2: EAYA/Music, Part E: Video Segments
- Component 2: EMC/Music, Part E: Video Segments
- Component 3: all certificate areas, Part C: Videos
- Component 3: all certificate areas, Part D: Instructional Planning Form and Materials
- Component 3: all certificate areas, Part E: Written Commentary
- Component 4: all certificate areas, Part C: Generation and Use of Assessment Data
- Component 4: all certificate areas, Part D: Participation in Learning Communities

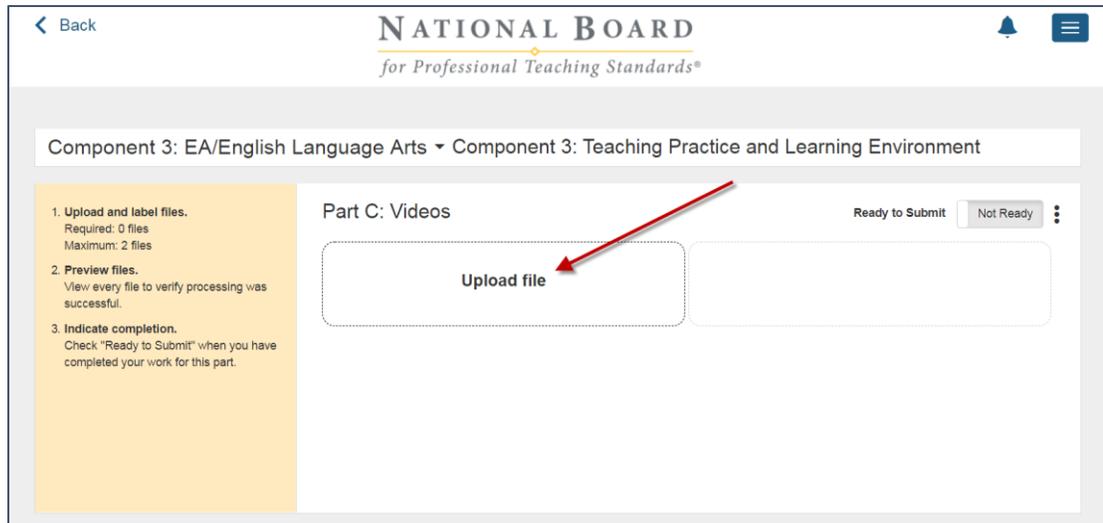
Note: The list of parts requiring labeling is subject to change in the future and is not applicable to renewal candidates or MOC pilot study participants.

Labeling Your Material

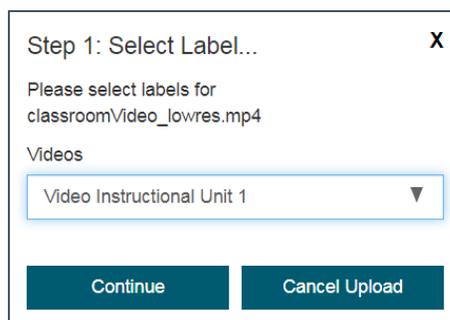
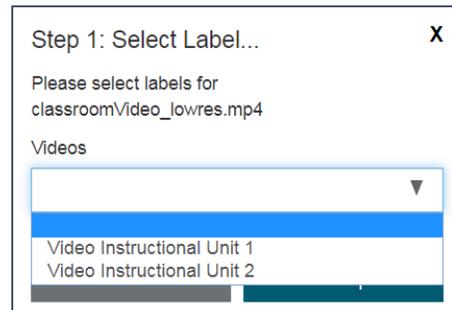
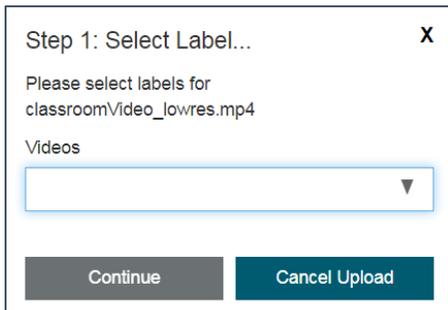
Each of the parts listed above requires multiple files to be uploaded. When you select a file to be uploaded for one of these parts, a "Select Label" box will display, which includes a dropdown menu. The labels available in the dropdown menu correspond to the required pieces of evidence for the part you are working on.

The sample screenshots below illustrate the steps for labeling files.

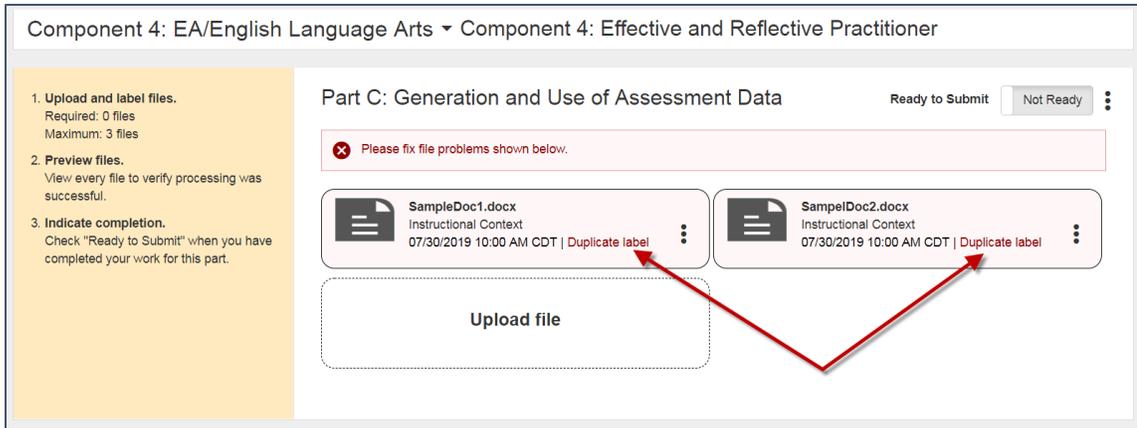
1. **Click** the “Upload File” button, and locate the file you wish to upload. Once you have selected a file to upload, a “Select Label” box will automatically display.



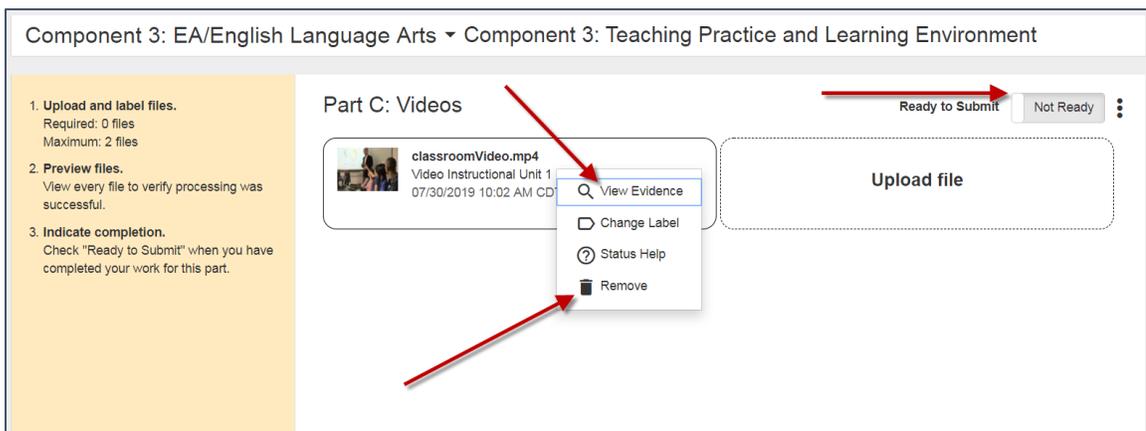
2. **Select** a label from the dropdown menu in the “Select Label” box, and **click** “Continue” to apply the label to your file.



Note: Each uploaded file must have a unique label assigned to it from the dropdown menu. If you select the same label for more than one file, the red error message **“Please fix file problems shown below”** will be displayed. To correct this, **click** “Duplicate label” under the name of the file with the wrong label assigned, and choose a different label from the dropdown menu in the “Select Label” box that will pop up.



3. Once you have successfully labeled and uploaded a file, you will be able to **review** your transcoded file, **change** the label you applied if needed, **remove** the file altogether, **upload and label** another file (if necessary), or **click** the “Ready to Submit” button to move on to the submission process.



Policies and Guidelines

Changing Certificate or Portfolio Entry Selections

If you are a first-time candidate, you may change your certificate area or portfolio entry selections through your National Board account.

All changes must be made prior to the established deadline. Refer to the *Guide to National Board Certification* for specific policy and instructions regarding certificate and portfolio entry changes. No changes can be made after the established deadline.

Submission

You will receive an email confirmation for each portfolio entry submitted. Note that this is the only notification you will receive regarding the receipt of your portfolio entry; the National Board will **NOT** audit or inventory the contents of your submission. (You must verify the accuracy of your material prior to clicking the Submit button.) Once submitted, all materials become the property of the National Board. For this reason, you are encouraged to retain copies of your material.

If you identify an error after submitting a portfolio entry, an exception processing service is available for a fee of \$250 **per entry** that will allow you to resubmit material. This service will only be available for one week after the submission window closes (**until June 19, 2020**). Candidates seeking this exception may be issued new voucher code(s) and all will be required to attest to their adherence to the submission deadline (June 12, 2020). For additional information, please contact Customer Support at 1-800-22TEACH®.

After the submission deadline, all uploaded materials (including incomplete entries) in the ePortfolio system will be submitted for evaluation as is.

Recommended System Specifications

It is recommended to use the latest version of the following operating systems, browsers, and software, depending on your preferences, for optimum system performance:*

Operating Systems	Browsers	Software
<p>Desktop/Laptop:</p> <ul style="list-style-type: none"> • Windows 10 or later • Mac OS X v10.9 or later <p>Handheld Devices:</p> <ul style="list-style-type: none"> • Android • iOS 	<ul style="list-style-type: none"> • Chrome • Firefox • Edge • Safari 	<ul style="list-style-type: none"> • Software that can be used to edit .docx files, such as Microsoft Word, Apache OpenOffice, or Google Docs • Adobe Acrobat Reader

*For optimum performance, a high-speed internet connection is recommended. The speed of uploading files to the ePortfolio system is dependent on the type of network, the size of the file, and the capacity of the network at upload time. Documents should upload and appear in the "Ready" state within 15 minutes; video files may take as long as one hour to upload and appear as "Ready."

Sample Electronic Submission at a Glance Charts

The samples on the following pages illustrate electronic submission information for:

- **first-time, returning, and retake candidates**
Obtain the chart specific to your assessment and certificate in your certificate-specific portfolio instructions for each component online at www.nbpts.org/national-board-certification/candidate-center.
- **renewal candidates**
Use the chart located in the Profile of Professional Growth instructions online at www.nbpts.org/national-board-certification/candidate-center/renewal-candidate-resources.

Maintenance of Certification (MOC) pilot study participants: Please refer to the email correspondences you have received for the link to your MOC-specific instructions, sheets, and templates.

Sample Electronic Submission at a Glance for First-Time, Returning, and Retake Candidates

Submit your evidence of accomplished teaching using the electronic portfolio management system (see the *Guide to Electronic Submission*). Use the following chart to determine how to group your evidence and submit it electronically. Forms are available as word-processing files for you to download from www.nbpts.org/national-board-certification/candidate-center.

EA-AYA/English Language Arts Component 3: Teaching Practice and Learning Environment				
What to Submit	Supported File Types	Number of Files to Submit	Response Length	Additional Information
Introduction to Entry Form (form provided)	docx, odt, or pdf	1	No more than 1 page	<ul style="list-style-type: none"> • Use 11-point Arial font • Single space
Instructional Context Sheet (form provided)	docx, odt, or pdf	1	Submit 1 file with no more than 1 page for each video— 2 pages total	<ul style="list-style-type: none"> • Use 11-point Arial font • Single space • Combine both sheets in a single file for submission.
Videos	flv, asf, qt, mov, mpg, mpeg, avi, wmv, mp4, or m4v	2	Running time 10–15 minutes each	<ul style="list-style-type: none"> • A signed release form is required for each student or adult who appears and/or speaks in the video recordings. • Refer to the <i>Portfolio Instructions and Scoring Rubric</i> for video content and requirements. • When naming each file, include “Video 1” and “Video 2,” as appropriate.
Instructional Planning Form and Materials (form provided)	docx, odt, or pdf	2	Submit 1 file for each video. In each file, include: <ul style="list-style-type: none"> • Instructional Planning Form, no more than 1 single-spaced page • Description of instructional planning and strategies, no more than 2 double-spaced pages with 1" margins on all sides • Instructional materials: one or more items, no more than 3 pages total 	<ul style="list-style-type: none"> • Use 11-point Arial font • When naming each file, include “Video 1” and “Video 2,” as appropriate. • Describe reasons for 1–2 allowable edits, if edits were made.
Written Commentary	docx, odt, or pdf	2	Submit 1 file for each video, no more than 4 pages each	<ul style="list-style-type: none"> • Use 11-point Arial font • Double space with 1" margins on all sides • When naming each file, include “Video 1” and “Video 2,” as appropriate.

Release forms are available as PDF downloads from www.nbpts.org/national-board-certification/candidate-center. **Retain completed release forms for your records; do not submit them with your evidence.**

Sample Electronic Submission at a Glance for Renewal Candidates

Submit your evidence of accomplished teaching using the ePortfolio system (see the *Guide to Electronic Submission*). Use this chart to understand how to group your evidence and submit it electronically for the **Profile of Professional Growth** assessment.

Renewal: Submit 10 files	Retain for Your Records
<ul style="list-style-type: none">  Component 1: Professional Context Sheet  Component 1: PGEs 1–4 (12 pages max. combined) each with associated product samples (8 pages max. combined) 	<ul style="list-style-type: none"> • Student Release Forms • Adult Release Forms
<ul style="list-style-type: none">  Component 2: Written Commentary (4 pages max.)  Component 2: Classroom Layout Forms(s)  Component 2: Video Recording Date Attestation Form (for videos not date-stamped)  Component 2: Video recording (10 minutes max.) 	
<ul style="list-style-type: none">  Component 3: Written Commentary (4 pages max.) <p>Choose one of these options:</p> <p>Option 1</p> <ul style="list-style-type: none">  Component 3: Video recording (6 minutes max.)  Component 3: Classroom Layout Forms(s) for Video Recording <p>Option 2</p> <ul style="list-style-type: none">  Component 3: Learner Work Samples (8 pages max; translations do not count towards page totals.) 	
<ul style="list-style-type: none">  Component 4: Written Reflection (3 pages max.) 	
<ul style="list-style-type: none">  Document. Submit as doc, docx, odt, or pdf file. 	
<ul style="list-style-type: none">  Video recording. Submit as flv, asf, qt, mov, mpg, mpeg, avi, wmv, mp4, or m4v file. 	

Produced for

NATIONAL BOARD

for Professional Teaching Standards[®]

by



Pearson

© 2020 National Board for Professional Teaching Standards. All rights reserved. No part of this publication may be reproduced or transmitted in any form by any means, electronic or mechanical, including photocopy, recording, or any information storage or retrieval system, without permission in writing from the publisher.

The National Board for Professional Teaching Standards logo, National Board for Professional Teaching Standards, NBPTS, National Board Certified Teacher, NBCT, National Board Certification, Accomplished Teacher, Profile of Professional Growth, and ATLAS Accomplished Teaching, Learning and Schools are registered trademarks or service marks of the National Board for Professional Teaching Standards. Other marks are trademarks or registered trademarks of their respective organizations.

The National Board for Professional Teaching Standards, Inc. has been funded in part with grants from the U.S. Department of Education and the Bill & Melinda Gates Foundation. The contents of this publication do not necessarily represent the policy of the U.S. Department of Education or the Bill & Melinda Gates Foundation, and you should not assume endorsement by the Federal Government or the Bill & Melinda Gates Foundation. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the sponsors.

Prepared by Pearson for submission under contract with the National Board for Professional Teaching Standards.®

Pearson and its logo are trademarks, in the U.S. and/or other countries, of Pearson Education, Inc. or its affiliate(s).

ePortfolio FAQs

Formatting, Uploading, and Submitting Materials

Q: When will I get my voucher code(s)?

A: We will email you your voucher code(s) when the submission window opens on April 1. Make sure your National Board account is up-to-date with your preferred email address and add NBPTSReg@pearson.com to your safe senders list so you won't miss it or other important updates. After April 1, you can get your voucher code(s) from your National Board [account](#) by selecting your 2018-19 registration (on the upper right).

*Remember! Your voucher codes are entry specific and unique to you; **DO NOT** share them with anyone else.*

Q: Where do I go to upload materials?

A: [Register here](#) by following the instructions provided on-screen. After registering, you can [upload and submit your portfolio](#) using the ePortfolio system.

Q: I need to register another voucher code(s) OR I need to register my new voucher code(s). How do I do that?

A: First, log in to your ePortfolio account at <http://www.nbpts.nesinc.com/Home.aspx>. Click "Register" from the menu on the right, then "Next" to enter your voucher code(s). Last, click the "Apply" button. (If you have more than one voucher code, you will need to repeat this step.)

Q: What are the acceptable file formats?

A: Submit your work as Microsoft Word, Open Office, or PDF files. Submit videos as flv, asf, qt, mov, mpg, mpeg, avi, wmv, mp4, or m4v files.

Q: My scanner only saves JPG files, what should I do?

A: You can insert graphic files such as JPGs into a word processing document for submission. You will not be able to upload graphic files. Go to www.nbpts.org/national-board-certification/candidate-center/eportfolio-submission/ for tips on [Scanning and Submitting your Hardcopy Evidence](#).

Q: I need help with preparing my video file for submission, what should I do?

A: There are a number of resources available at www.nbpts.org/national-board-certification/candidate-center/eportfolio-submission/ to help guide you. The following documents may be helpful in preparing your video:

- [Recommended Video Formats and Settings](#)
- [Video Conversion & Compression Guide for Mac OS X Users](#)
- [Video Conversion & Compression Guide for Windows Users](#)
- [Video Exporting Guide for iMovie](#)
- [Video Exporting Guide for iPhoto](#)
- [Video Exporting Guide for Windows Movie Maker](#)

Q: When I saved my file as a PDF, or when I uploaded my file to the ePortfolio system, my format specifications changed, e.g. margins/font look bigger, an extra page was inserted or some pages rotated?

A: Converting your file to a PDF and system transcoding that occurs during the upload process

may result in slight format changes. These changes won't impact the evaluation of your submission as long as your source document meets National Board requirements.

Q: I uploaded my files, but I can't view them OR several minutes have passed since I uploaded my files yet the file status still shows "Processing". Should I start over?

A: Don't start over. Instead check these things:

- Do you have the current version of Adobe Flash Player installed? If your set-up does not include this software, you may not be able to preview your files.
- How did you name your file? The name of your file should not include special characters. If your file name includes special characters you will need to rename your file and upload it again.
- Have you clicked "Refresh"? If the file status continues to show "processing" after several minutes, click the blue "Refresh" button found in the upper right-hand corner of the ePortfolio system.
- How fast is your network? You'll need to upload your material using a network with a speed higher than 1.5 megabits per second. Review [Troubleshooting Tips for the ePortfolio System](#) for instructions on how to test your network speed.

Q: I've uploaded my files, but the status on my summary page still shows "In Progress", what should I do?

A: You need to mark your files "Ready to Submit." From your summary page, click on "Update and Review" and then click the "Ready to Submit" check box at the top right corner. This will update your status. If you need to change a file after marking it ready, simply uncheck the box and you can replace it.

Q: I uploaded my video, but when I try to preview it, it takes a while to start?

A: Allow the system the time needed to buffer and play the video. Don't continue to hit the play or refresh button; this could delay the process. You should also check your network speed to make sure you have a good connection.

Q: I submitted material, but didn't receive an email confirmation. What should I do?

A: If you can't find your ePortfolio submission confirmation email, check your SPAM file. You can also find confirmation of your submission in your ePortfolio account. From your Portfolio Entry Summary page, simply click on your entry for confirmation. Print this page for your records. Submission confirmation emails cannot be resent.

First-time, Returning, and Retake Candidates

Q: Where can I find my Candidate ID? What if I forget to include it in my submission?

A: You can find your National Board Candidate ID in your National Board account. This ID is different from the one you received when registering in the ePortfolio system. Forgetting to include your ID, or including the wrong ID, will not impact the scoring of your submission.

Q: How should I number the pages of my entry

A: There isn't a wrong way to number your pages; feel free to:

- Number your entire entry's pages sequentially from beginning to end.
- Number each individual part of your entry separately.
- Skip page numbering all together. Page numbering doesn't impact scoring.

Q: What identifying information should be included in my submission, e.g. names, locations, etc.?

A: The anonymity guidelines are:

- When referencing students, parents, and colleagues, use first names only.
- When referencing your school, school district, or facility, use initials only, do not identify its location.
- Do not identify your city or state by name.
- Do not identify any college or university by name.
- Remove your name from student work and do not include your name in Written Commentaries.

Q: What cover sheets and forms do I submit, and do I need cover sheets for my instructional materials?

A: Submit the following types of cover sheets and forms:

- Those that require you to enter information about the evidence you are submitting.
- Those that include prompts you must respond to on a separate page.
- Those that identify the evidence attached.

Refer to the Submission at a Glance Chart located in your portfolio instructions for a complete list of evidence, forms and cover sheets to submit electronically.

Q: Is it ok to handwrite on the forms?

A: Yes, we accept handwritten responses on forms. You can also type your responses using single spacing and the default font.

Q: Why is the space for responding on the Contextual Information sheet so limited?

A: You shouldn't need a lot of space. The purpose of this form is for you to **briefly** describe your overall teaching context with a focus on your school/district at large.

Q. My forms are available as Word documents; can I delete the form directions/instructions to provide myself more typing space?

A: No. You are not permitted to alter any National Board forms. Your responses should be concise.

Q: Can I use the same Contextual Information Sheet for all of my entries?

A: Yes, you may use the same Contextual Information Sheet for all of your entries, if you are using the same class/school.

Q: May I place a collage of photos on the Photo Storyboard Form?

A. No. You must not include more than one photograph on each Photo Storyboard Form. A form that contains a collage of photographs is not acceptable. Assessors will view each photograph used to create a collaged image as a single photograph that will count toward the 10 photograph limit. Also, don't place Assessment Materials on the Photo Storyboard Form.

Renewal Candidates

Q: Where can I find my Candidate ID? What if I forget to include it in my submission?

A: You can find your National Board Candidate ID in your National Board account. This ID is

different from the one you received when registering in the ePortfolio system. Forgetting to include your ID, or including the wrong ID, will not impact the scoring of your submission.

Q: What identifying information should be removed from my submission, e.g. names, locations, etc.?

A: Your goal in referring to people or places is to convey to an evaluator sufficient evidence about your teaching practice. Use the following guidelines to refer to people, institutions, and places in your written materials, learner work samples, instructional materials, sample products, and videos:

- Remove all references of your last name.
- Remove last names of students, parents, and colleagues.
- Remove the name of your school, district, city, or state.
- If the sample includes a company, organization, or university that does not reveal your exact location, such as The National Board for Professional Teaching Standards, you do not need to remove the organization name or location. Signatures from those organizations may be left since they are not colleagues. Names of authors or professional presenters do not need to be removed.
- Last names and identifiers should not be removed from the Video Recording Date Attestation Form.

Q: How should I organize and number pages?

A: All pages must be sequentially numbered within each component. Number pages for Component 1 as 1-20+ (half pages of text may be used), with your samples following each related Professional Growth Experience (see “Organizing Your PPG Components” on page 37 of the [PPG Instructions](#)). For example, if the commentary for PGE 1 is numbered 1-3, the related samples that are placed next would be numbered 4-5. The commentary for PGE 2 would be numbered 6-8, and the samples 9-10, etc. Pages in Component 2 will be numbered 1 to 4. Pages in Component 3 will be numbered 1 to 4. If learner work is submitted, it will be numbered 1 to 8. The reflection will be numbered 1 to 3. Do not number cover sheets and forms.

Q: My video has multiple segments, can I upload them separately?

A: Your video segments will need to be uploaded as a single file. For instructions on converting the multiple files to a single file, review the Video Conversion and Compression Guide found online at www.nbpts.org/national-board-certification/candidate-center/eportfolio-submission.

Q: I don't have a Video Recording Date Attestation or Classroom Layout form, how do I submit?

A: If you are not submitting a Video Recording Date Attestation or Classroom Layout form, simply leave the corresponding part(s) empty in the ePortfolio system.

You need to mark your files "Ready to Submit" for each part, including those that are empty, BEFORE you will be able to click "Submit".

Q: Is it ok to handwrite on the forms?

A: Yes, we accept handwritten responses on forms. You can also type your responses using single spacing and the default font.

Q: How do I submit Component 3?

A: Component 3 offers you several options. You may choose to create a 6-minute video recording of your teaching practice with pre-K–12 learners or with professional colleagues, or

you may choose to feature learner work samples from one or more learners. Parts G, H and I in the ePortfolio system are designated for Component 3 files. Simply upload your files to the corresponding section(s) and leave the extra parts empty.

You will need to mark you files "Ready to Submit" for each part, including those that are empty, BEFORE you will be able to click "Submit."

Scanning and Submitting Your Hard-Copy Evidence

Scanning allows you to create electronic files from hard-copy material. Some examples of material you may need to scan for upload to the ePortfolio system include cover sheets, forms, and student work samples.

To scan documents, you need access to a stand-alone scanner or an all-in-one printer/scanner/copier/fax machine.

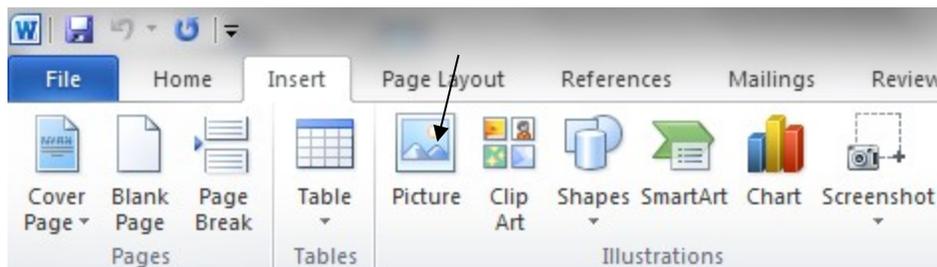
If you do not own a scanner or an all-in-one machine, consider using the services offered at your local library or office supply store.

Preparing Graphics Files

Graphics files are not valid file formats for submission in the ePortfolio system. You will need to insert your graphics files into a word processing document prior to uploading your materials into the ePortfolio system. Please note that the instructions for inserting images into a word processing document may vary depending on the tool you use.

Follow these instructions to insert graphics files into a Microsoft Word document:

1. Open a new Microsoft Word document.
2. Click "Insert" from the menu bar and select the "Picture" option.



3. Identify the graphics files you want to include and click the "Insert" button.
4. Repeat steps 2 and 3 until you have inserted all files.
5. Save as you normally would.

Preparing PDFs

PDF is an acceptable file format for submission in the ePortfolio system. However, depending on your portfolio entry requirements, you may need to combine multiple PDFs into a single PDF for submission. See the *Electronic Submission at a Glance* chart for your certificate area for specific entry requirements and refer to *Tips for Submitting Your Evidence as PDF Files* for further instruction.

Additional Resources

Please visit www.nbpts.org/national-board-certification/candidate-center/eportfolio-submission for other helpful resources, including technical guides, video tutorials, and Frequently Asked Questions.

Tips for Submitting Your Evidence as PDF Files for Microsoft Word® Users

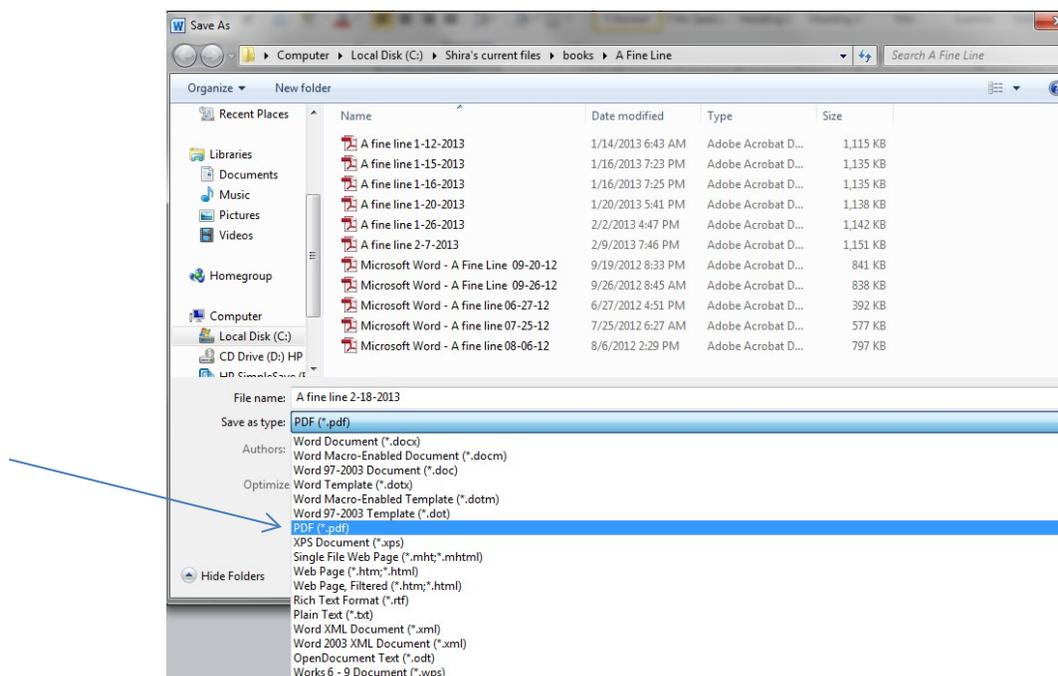
Follow the instructions below to convert a word processing file to a PDF and to combine multiple PDFs into a single file.

Please note that you are not required to convert Microsoft Word or Open Office files to PDFs for submission in the ePortfolio system; Microsoft Word and Open Office files are both accepted file formats.

Creating PDFs

Creating a PDF Using Microsoft Word 2007

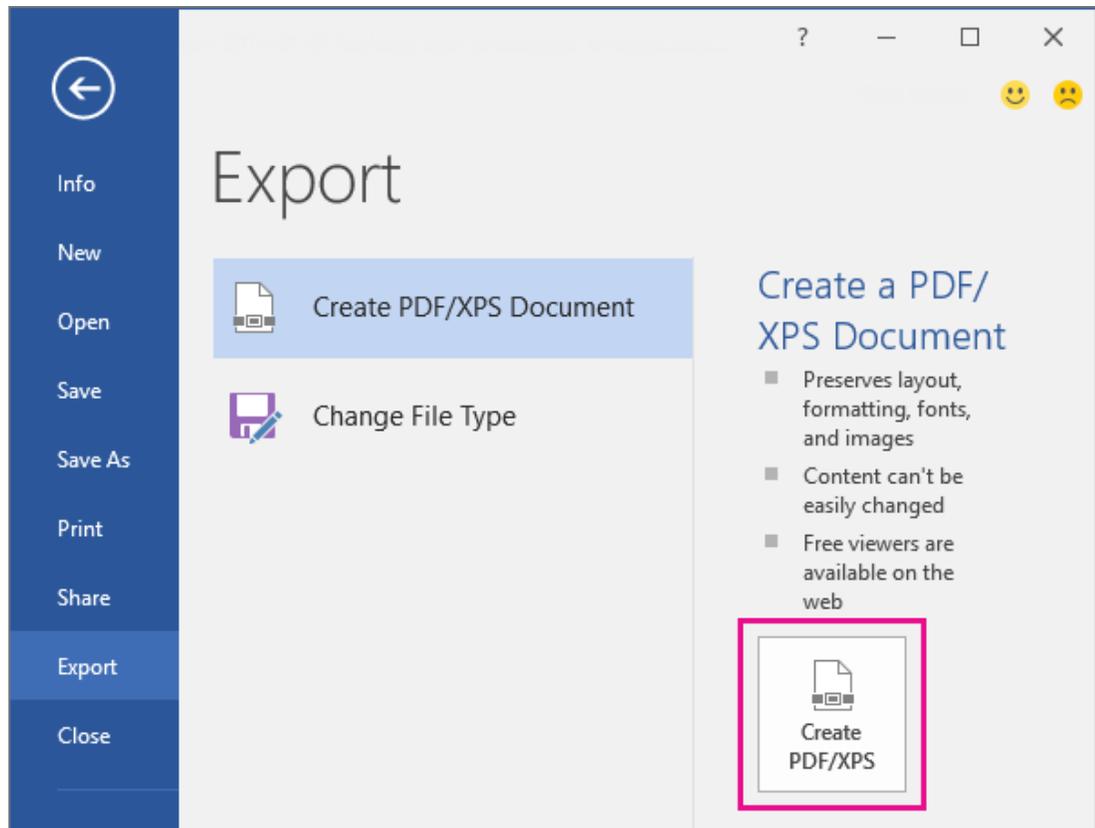
1. Open your Microsoft Word file and click “File” from the menu bar and select the “Save As” option.
2. Click the “Save as type” drop-down menu and scroll down to select “PDF (*.pdf).”



3. Save the PDF as you normally would.

Creating a PDF Using Microsoft Word 2010 or Later

1. Open your Microsoft Word file and Choose "File" > "Export" > "Create PDF/XPS."



2. In the "Save Adobe PDF File As" dialog box, save the file as you normally would.

Combining Multiple PDFs into a Single PDF

You may need to download a tool to combine individual PDF documents into a single PDF.

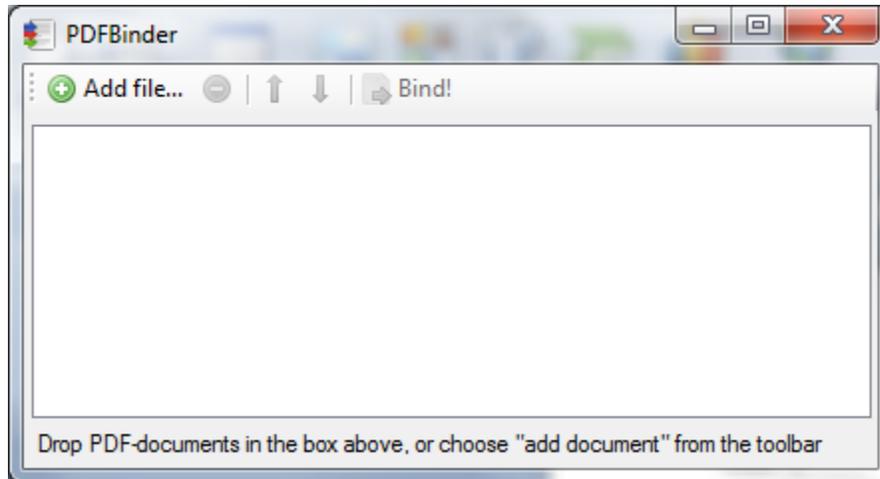
Follow these instructions to download and run this free software tool:

1. Visit <http://pdfbinder.en.softonic.com/> and follow the instructions to download PDFBinder. Note that you should perform a Custom Installation to avoid installing additional software.

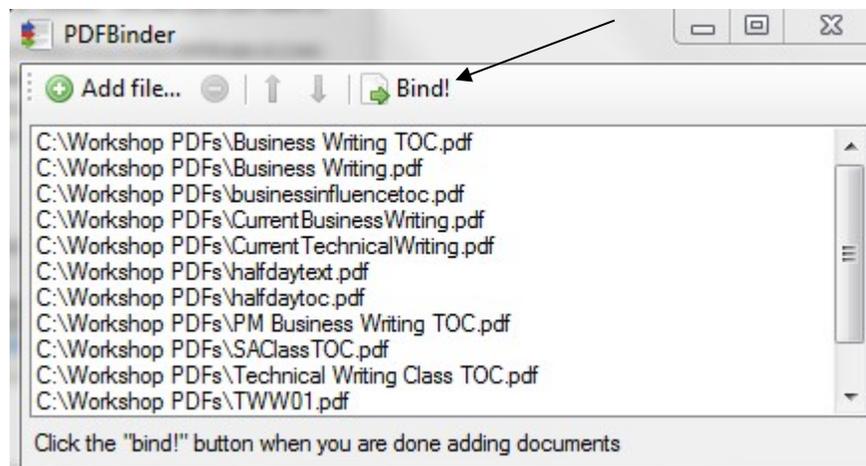
Please note that links to third-party software are provided by Pearson as a courtesy and do not constitute an endorsement of any third-party

products or services you may access. If you do access a third-party site and/or software, you do so at your own risk.

2. Open PDFBinder and click the "Add file..." button to identify the PDFs you want to bind.



3. Change the order of your PDFs by using the arrow buttons in the menu bar.
4. Click "Bind" and wait for the process to complete.



5. Rename the new PDF and save.

Additional Resources

Please visit www.nbpts.org/national-board-certification/candidate-center/eportfolio-submission for other helpful resources, including technical guides, video tutorials, and Frequently Asked Questions.

Tips for Submitting Your Evidence as PDF Files for Mac Users

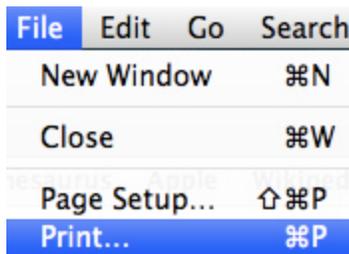
Follow the instructions below to convert a word processing file to a PDF and to combine multiple PDFs into a single file.

Please note that you are not required to convert Microsoft Word or Open Office files to PDFs for submission in the ePortfolio system; Microsoft Word and Open Office files are both accepted file formats. However, if you wish to upload PDF files rather than Word documents, current versions of Word can save files directly as PDFs.

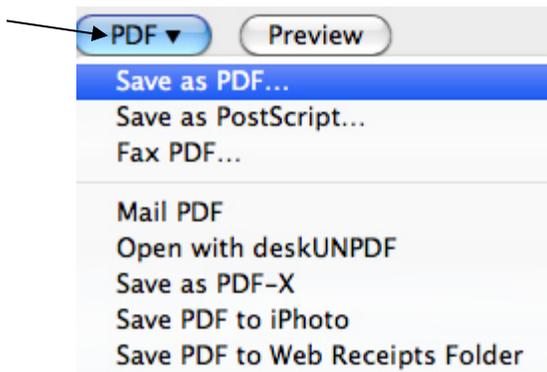
Creating PDFs

Mac users can create PDFs directly from the operating system. To create a PDF:

1. Open your file and click "File" from the menu bar and select the "Print" option.



2. Click the "PDF" drop-down menu button and select "Save as PDF...".

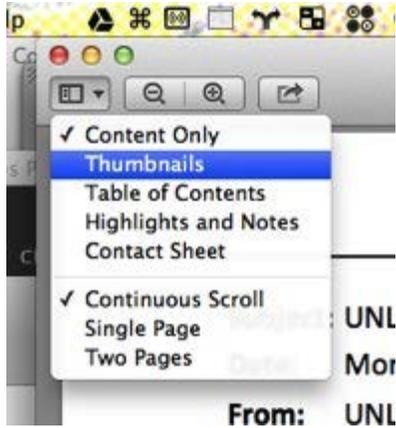


3. Save as you normally would.

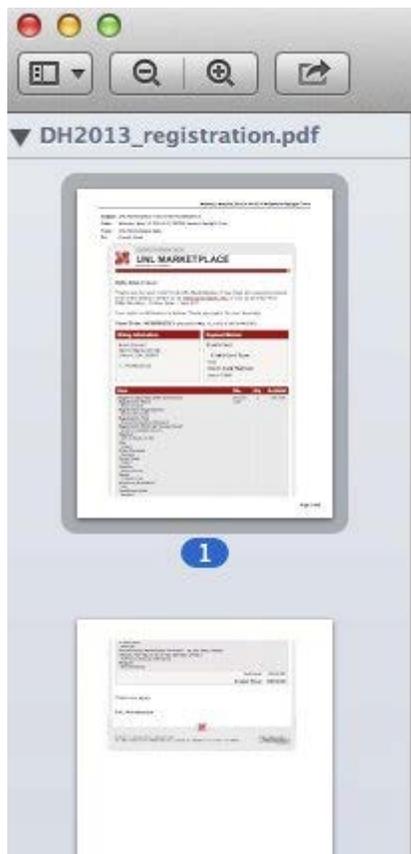
Combining Multiple PDFs into a Single PDF

To combine multiple PDFs into a single file using Preview:

1. Open the PDFs you want to combine.
2. Click on the drop-down menu in the upper-left corner and select "Thumbnails" on each PDF.



A tray will open on the left-hand side of Preview, showing you the individual pages of your PDFs.



3. Select the thumbnails of the PDF that you want to combine from one file—use Command-A to select them all at once—and then drag these thumbnails pages *onto* the thumbnails of the other PDF.
4. Save as you normally would.

Merging PDF Files – Mac OS X Lion

If you have multiple files to merge and have Mac OS X Lion:

1. From “Finder,” select and click all the PDFs you want to combine. They will all open in “Preview.”
2. Click the “File” drop-down menu.
3. Click the “Print” drop-down menu.
4. In the lower left-hand corner, click the arrow next to “PDF.”
5. Click “Save to PDF.”

Additional Resources

Please visit www.nbpts.org/national-board-certification/candidate-center/eportfolio-submission for other helpful resources, including technical guides, video tutorials, and Frequently Asked Questions.

Recommended Video Formats and Settings

Acceptable File Formats

Video recordings may be submitted in the following file formats:

flv, asf, qt, mov, mpg, mpeg, avi, wmv, mp4, m4v

Recommended File Formats

Please refer to your video camera's user manual or specifications to determine the video format recording options.

Use of a digital camera or video camera that supports the following is recommended:

Video File Type	Common File Extensions	Video Codecs	Media Player Support*
AVI – Audio Visual Interleave	.avi	wide variety; DivX, MJPEG are common	Supported by variety of media players including Windows Media Player
QuickTime Content	.qt, .mov	H.264	QuickTime
MPEG-4	.mp4	MPEG-4 AVC/H.264 or MPEG-4 ASP	QuickTime, Windows Media Player
WMV – Windows Media Video	.wmv	WMV	Windows Media Player
* These video formats are supported by a number of media players. Only the more common players are listed here for reference.			

Recommended Media Format

Because it is best to upload a video in its original format, the recording settings should match the recommended format and resolution. This way the digital file created when you record will meet the suggested specifications without any additional effort or conversion on your part.

- **Bitrate:** To ensure your video meets the file size requirements, we recommend a video bitrate of 256Kbps. Candidates seeking to increase the visual quality of their video clips may use higher bitrate settings, but please be aware that this will result in a larger file which may exceed the file size requirement or be more difficult to upload.
- **File Size:** The target file size is 200 MB to 300 MB or less.

Note: The ePortfolio system file size limit is 500 MB. You may need to use a video conversion tool to compress your video into a smaller file size to facilitate its upload. A technical guide that outlines this process is available at www.nbpts.org/national-board-certification/candidate-center/eportfolio-submission/.

- **Resolution:** To achieve the target file size, be sure to set the proper resolution before you start recording. Commonly used lower resolutions like "320 x 240" and "640 x 480" will yield the best results. Higher resolutions and "HD quality" will produce file sizes too large to be conveniently uploaded and should be avoided.
- **Frame Rotation:** We recommend shooting video in landscape aspect ratio.
- **Frame Rate:** We recommend shooting in or encoding to 24 (23.98), 25, or 30 (29.97) fps. 30 fps is common.
- **Pixels:** Non-square (anamorphic) pixels are handled automatically.
- **Deinterlace:** Interlaced videos are handled automatically.
- **Keyframes:** Keyframes can be set to automatic on device.

Additional Resources

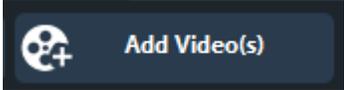
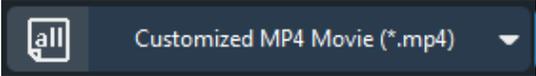
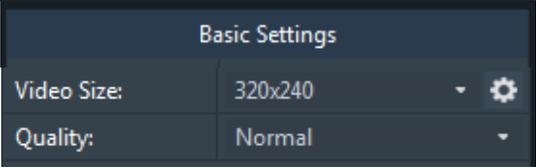
Please visit www.nbpts.org/national-board-certification/candidate-center/eportfolio-submission for other helpful resources, including technical guides, video tutorials, and Frequently Asked Questions.

Video Conversion & Compression Guide for Windows Users

You may need to use a video conversion/compression tool to:

- Reduce the size of your video file for uploading. The recommended file size is 200 MB to 300 MB. *Note: Before reducing your video file size, you should first trim your video so it contains only the video segment that will be submitted.*
- Convert your video into a file format that meets the requirements of the ePortfolio system. The approved formats include: .flv, .asf, .qt, .mov, .mpg, .mpeg, .avi, .wmv, .mp4, and .m4v.

Follow these instructions to download and run this free software tool:

<p>1. Go to www.any-video-converter.com/products/for_video_free/ and follow the instructions to download the Any Video Converter Free Edition. Note that you should perform a Custom Installation to avoid installing additional software.</p> <p><i>Please note that links to third-party software are provided by Pearson as a courtesy and do not constitute an endorsement of any third-party products or services you may access. If you do access a third-party site and/or software, you do so at your own risk.</i></p>	
<p>2. Open Any Video Converter and click the "Add Video(s)" button to identify the video file(s) you want to convert/compress.</p>	
<p>3. Click the output video profile drop-down menu in the upper right corner next to the "Convert Now" button and scroll down to select "Customized MP4 Movie (*.mp4)" under "Common Video Formats."</p>	
<p>4. Click "Basic Settings" in the lower right corner and ensure that your settings match those in the picture to the right. Do not change any other settings.</p>	

5. Click "Video Options" in the lower right corner and ensure that your settings match those in the picture to the right. Do not change any other settings.



6. Click the "Convert Now!" button. Once the conversion/compression is complete, the folder containing your new video file will open automatically. Move the file to your desktop, and you're ready to upload it to the ePortfolio system.



Additional Resources

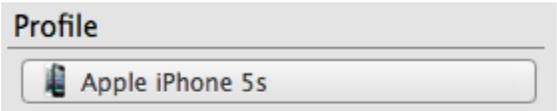
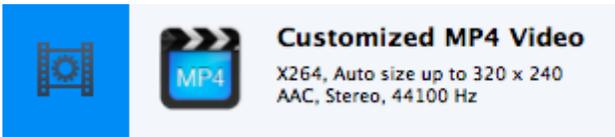
Please visit www.nbpts.org/national-board-certification/candidate-center/eportfolio-submission for other helpful resources, including technical guides, video tutorials, and Frequently Asked Questions.

Video Conversion & Compression Guide for Mac OS X Users

You may need to use a video conversion/compression tool to:

- Reduce the size of your video file for uploading. The recommended file size is 200 MB to 300 MB. *Note: Before reducing your video file size, you should first trim your video so it contains only the video segment that will be submitted.*
- Convert your video into a file format that meets the requirements of the ePortfolio system. The approved formats include: .flv, .asf, .qt, .mov, .mpg, .mpeg, .avi, .wmv, .mp4, and .m4v.

Follow these instructions to download and run this free software tool:

<p>1. Go to https://itunes.apple.com/us/app/any-video-converter-lite/id479472944 to download and install Any Video Converter Lite free of charge from the Mac App Store.</p> <p><i>Please note that links to third-party software are provided by Pearson as a courtesy and do not constitute an endorsement of any third-party products or services you may access. If you do access a third-party site and/or software, you do so at your own risk.</i></p>	
<p>2. Open Any Video Converter. Click the conversion profile button under "Profile" in the upper right corner. By default, this button will say "Apple iPhone 5s."</p>	
<p>3. In the menu that appears, click the custom video formats icon at the bottom (which appears as a blue film cell and gear) and then select "Customized MP4 Video."</p>	
<p>4. Click the "Add File(s)" button to identify the video file(s) you want to convert.</p>	
<p>5. Once your video appears in Any Video Converter, click the video format icon to customize your settings.</p>	

<p>6. Ensure your video settings match those listed to the right. Do not change any other settings. Check the boxes next to "Aspect: Keep Original" and "Apply to All," then click "OK." Optionally, you may save this profile for future use.</p>	<p>Codec: x264 Frame Rate: 25 Bitrate: 256 Size: 320x240</p>
<p>7. Click "Convert Now" and wait for the process to complete.</p>	<p style="text-align: center;"></p>
<p>8. To locate your file, click "Task," then select "History." Click the magnifying glass next to your video and your file will be shown in the Finder. Move the file to your desktop, and you're ready to upload it to the ePortfolio system.</p>	<p style="text-align: center;">    </p>

Additional Resources

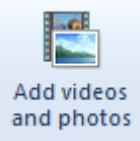
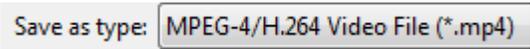
Please visit www.nbpts.org/national-board-certification/candidate-center/eportfolio-submission for other helpful resources, including technical guides, video tutorials, and Frequently Asked Questions.

Video Exporting Guide for Windows Movie Maker

You may need to use Windows Movie Maker to:

- Reduce the size of your video file for uploading
- Convert your video into a file format which meets the requirements of the assessment. The approved formats include: .flv, .asf, .qt, .mov, .mpg, .mpeg, .avi, .wmv, .mp4, and .m4v.

Please follow these instructions to export your video from Windows Movie Maker 2012:

<p>1. If you do not already have Windows Movie Maker 2012 on your computer, download the free software from http://windows.microsoft.com/en-us/windows/get-movie-maker-download and follow the instructions on the website and the installer.</p> <p><i>Please note that links to third-party software are provided by Pearson as a courtesy, and do not constitute an endorsement of any third-party products or services you may access. If you do access a third-party site and/or software, you do so at your own risk.</i></p>	
<p>2. Open Windows Movie Maker and select your video</p>	
<p>3. Click "Save movie" in the upper right corner. Note that you must click the text, not the icon, in order to access the menu and select a video format in the next step.</p>	
<p>4. In the menu that appears, navigate to "Common settings" and select the option that says "For email"</p>	
<p>5. In the window that appears, select to save your video as "MPEG-4/H.264 Video File (*.mp4)"</p>	
<p>6. Navigate to your desktop, click "Save," and wait for your video to be compressed and exported</p>	
<p>7. You're done – log into your portfolio and upload the video from your desktop!</p>	

For Additional Support

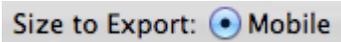
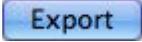
Please visit the program website, www.edtpa.com, to review additional support materials, including video tutorials and Frequently Asked Questions (FAQ). For additional assistance, contact Customer Support. See "Contact Us" on the program website for contact information.

Video Exporting Guide for iMovie V 9.0.9 and 10.1.9

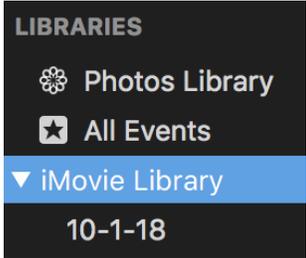
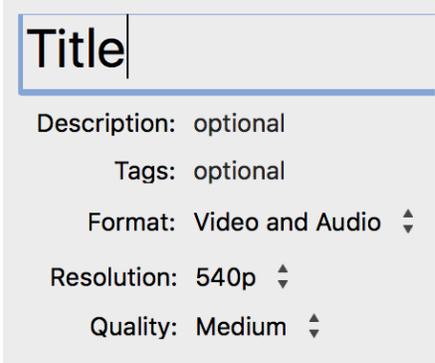
You may need to use iMovie to:

- Reduce the size of your video file for uploading. The recommended file size is 200 MB to 300 MB.
- Convert your video into a file format that meets the requirements of the ePortfolio system. The approved formats include: .flv, .asf, .qt, .mov, .mpg, .mpeg, .avi, .wmv, .mp4, and .m4v.

Follow these instructions to export your video from iMovie 9.09:

<p>1. Open iMovie and ensure you have the version 9.0.9 by selecting “About iMovie” from the “iMovie” menu. If you have an older version of iMovie, or if you do not have iMovie, you may download iMovie 9.0.9 free of charge from http://support.apple.com/kb/dl1574. If you have a later version of iMovie, please refer to our updated instructions for iMovie 10.1.9, available on the next page.</p> <p><i>Please note that links to third-party software are provided by Pearson as a courtesy and do not constitute an endorsement of any third-party products or services you may access. If you do access a third-party site and/or software, you do so at your own risk.</i></p>	
<p>2. Create a new, blank project by clicking “New Project” in the “File” menu. Do not add any effects.</p>	
<p>3. Navigate to your video clip in your Event Library. You may need to import it by selecting “Import” and then “Movies...” from the “File” menu.</p>	
<p>4. Click on your video and choose “Select Entire Clip” from the “Edit” menu to ensure that your entire clip is selected.</p>	
<p>5. Click the “Add selected video to Project” button to add your video clip to your new project.</p>	
<p>6. Click “Export Movie...” in the “Share” menu. In the box that appears, indicate “Mobile” next to “Size to Export.” Navigate to your desktop, click the “Export” button, and wait for your video to be compressed and exported.</p>	
	
<p>7. You’re done—Move the file to your desktop, and you’re ready to upload it to the ePortfolio system.</p>	

Follow these instructions to export your video from iMovie 10.1.9:

<p>1. Open iMovie and ensure you have the latest version (10.1.9) by selecting “About iMovie” from the “iMovie” menu. If you do not have iMovie 10.1.9, you may update via the Mac App Store at https://itunes.apple.com/us/app/imovie/id408981434?mt=12. If you are not eligible for a free upgrade you may view our instructions for using iMovie 9.0.9, available on the previous page.</p> <p><i>Please note that links to third-party software are provided by Pearson as a courtesy, and do not constitute an endorsement of any third-party products or services you may access. If you do access a third-party site and/or software, you do so at your own risk.</i></p>		
<p>2. Navigate to your video in your iMovie Library. If you cannot find your video in your iMovie Library, you may need to import it by clicking “Import Media...” from the “File” menu.</p> <p>3. Verify that the video that plays in the window is the video that you want to export. If you only wish to export part of an event, you must select only the part of the event that you wish to export.</p>		
<p>4. Click the “Share” button, and select “File” from the menu that appears.</p>		
<p>5. Set the “Resolution” of your video clip to “540p” and, optionally, enter a title, description, and tag(s) for your video clip.</p> <p>6. Click “Next...” and save the video to your Desktop.</p>		
<p>8. You’re done – you’re ready to upload the video from your desktop to the ePortfolio system.</p>		

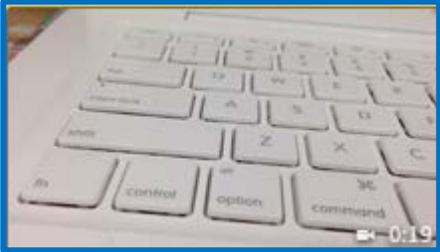
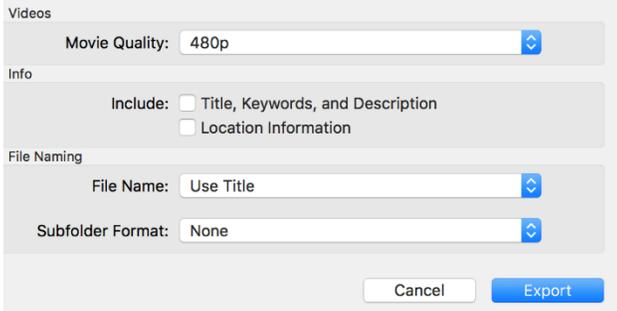
Additional Resources

Please visit www.nbpts.org/national-board-certification/candidate-center/eportfolio-submission for other helpful resources, including technical guides, video tutorials, and Frequently Asked Questions.

Video Exporting Guide for Photos

If you imported your video to Photos, or if your video is saved in Photos, you will need to export your video before uploading it to the ePortfolio system.

Follow these instructions to export your video from Photos:

<p>1. Open Photos.</p> <p><i>Please note that references to third-party software are provided by Pearson as a courtesy and do not constitute an endorsement of any third-party products or services you may access. If you do access a third-party site and/or software, you do so at your own risk.</i></p>	
<p>2. Navigate to your video in Photos and select it. Once selected, your video should be highlighted with a yellow border. Ensure that you are selecting only the single video clip you wish to export.</p>	
<p>3. Select "Export 1 Video..." from the "File" menu.</p>	
<p>4. Select a low resolution for the "Movie Quality" to expedite uploading the file. Click "Export" and save the file to your Desktop.</p>	
<p>5. If your file is over 300 MB, or if your upload is taking a long time or failing to complete, we recommend compressing your video before uploading. For assistance compressing your video, please refer to the Video Conversion & Compression Guide for Mac OS X Users, available at www.nbpts.org/national-board-certification/candidate-center/eportfolio-submission.</p>	
<p>6. You're done—Move the file to your desktop, and you're ready to upload it to the ePortfolio system.</p>	

Additional Resources

Please visit www.nbpts.org/national-board-certification/candidate-center/eportfolio-submission for other helpful resources, including technical guides, video tutorials, and Frequently Asked Questions.

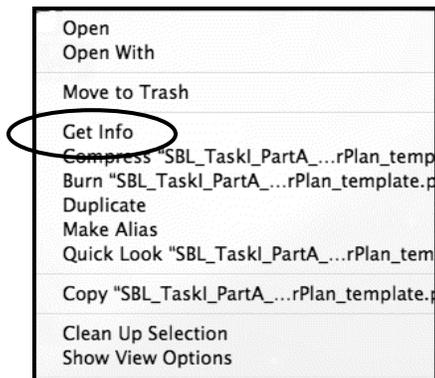
Tips for Mac Users

This document provides hints and tips for Mac users.

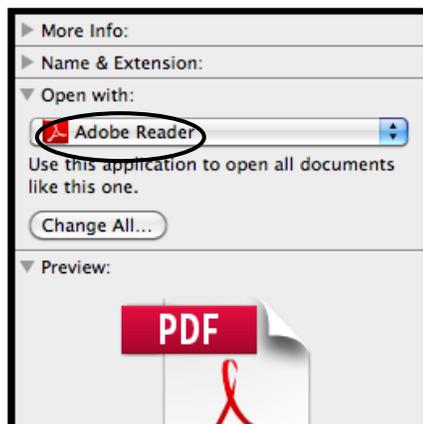
Optional: Changing Your Default PDF Reader

If you are working on your own computer and wish to change your default PDF reader setting to Adobe Reader, follow these steps:

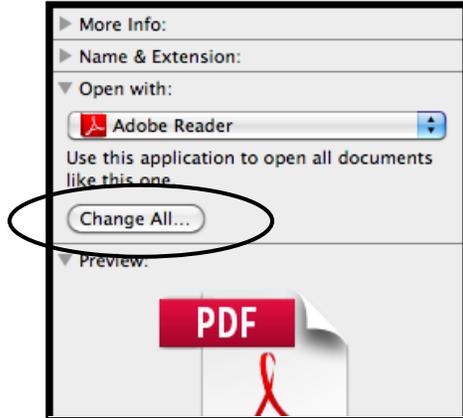
1. Right-click (or CTRL+click) any PDF file. Do not open the file.
2. On the new menu, click "Get Info."



3. Under "Open with," select "Adobe Reader."



4. Click the "Change All" button.



Now all PDFs should open in Adobe Reader automatically.

If You Are Using Microsoft Office 2008 (without Service Pack 1) or an Earlier Version of Microsoft Office for Mac

You may encounter a transcode error message during upload. To prevent this, install a newer version of Microsoft Office for Mac and save your files in the newer version before uploading.

If You Used Drag-and-Drop or Copy/Paste to Insert an Image into Your Microsoft Word Document

You may encounter a transcode error message during upload, or your images may not appear in your uploaded document. To address this, save a local copy of the image to your computer, then re-insert the image into your document by using the "Insert" menu option and selecting the local image file. When you have finished re-inserting all images in this manner, save the file and try uploading again.

Additional Resources

Please visit www.nbpts.org/national-board-certification/candidate-center/eportfolio-submission for other helpful resources, including technical guides, video tutorials, and Frequently Asked Questions.

Troubleshooting Tips for the ePortfolio System

Review the tips in this document if you are encountering difficulties with:

- [Uploading files](#)
 - [Network Speed](#)
 - [File Size](#)
 - [File Format](#)
- [Submitting Files](#)

Please note that links to third-party software are provided by Pearson as a courtesy and do not constitute an endorsement of any third-party products or services you may access. If you do access a third-party site and/or software, you do so at your own risk.

Uploading Files

If you are having problems with network speed:

Symptoms	Likely Causes	What to Do	Where to Find More Information
Uploading process takes longer than 1 hour System times out before upload is complete	Your primary Internet or network connection may be too slow.	Use the free Speed Test Tool to determine your network speed. If your connection is too slow, try using another network or try compressing your file to reduce the size.	See the Using the Speed Test Tool section of this document.
System seems stuck on "Processing" after I've uploaded my file	The system does require time to process files: up to 15 minutes for documents and 1 hour for videos. Your files should appear in the "Ready" state after this time.	You can perform other functions in the Pearson ePortfolio system while a file is in the "Processing" state.	

If you are having problems with file size:

Symptoms	Likely Causes	What to Do	Where to Find More Information
<p>Uploading process takes longer than 1 hour</p> <p>System times out before upload is complete</p> <p>Error message indicates that a file size is too large</p>	<p>Your video file is too large—over 500 MB (the recommended file size is 200 MB to 300 MB or less).</p>	<p>Use a video conversion tool to compress your video and reduce the size of your file.</p>	<p>Review the following tip documents:</p> <p><i>Video Conversion & Compression Guide for Windows Users</i></p> <p><i>Video Conversion & Compression Guide for Mac OS X Users</i></p> <p>These documents describe how to download and install a video conversion tool to convert a video file into an appropriate format and size for uploading.</p>

If you are having problems with file format:

Symptoms	Likely Causes	What to Do	Where to Find More Information
Error message indicates my video file is in the wrong format	Your video file is not in one of the acceptable formats: .flv, .asf, .qt, .mov, .mpg, .mpeg, .avi, .wmv, .mp4, or .m4v	Use a video conversion tool to convert your video file into one of the acceptable formats.	Review the following tip documents: <i>Video Conversion & Compression Guide for Windows Users</i> <i>Video Conversion & Compression Guide for Mac OS X Users</i> These documents describe how to download and install a video conversion tool to convert a video file into an appropriate format and size for uploading.
The system won't accept my image/graphics file	Image/graphics files (e.g., .jpg, .bmp, .gif) are not valid file formats for submission.	Insert the image into a Microsoft Word or OpenOffice Writer document, and save it using the "File/Save" or "File/Save As..." features in those applications.	See the <i>Electronic Submission at a Glance</i> chart for your certificate area for a list of accepted file formats.
I can't choose the file I want to upload	Your file is not in one of the accepted file formats.	Documents must be Microsoft Word, Open Office, or PDF files. Other file types must be converted to PDF before uploading. For unsupported video file types, use a video conversion tool to convert your video file into one of the acceptable formats.	See the <i>Electronic Submission at a Glance</i> chart for your certificate area for a list of accepted file formats.

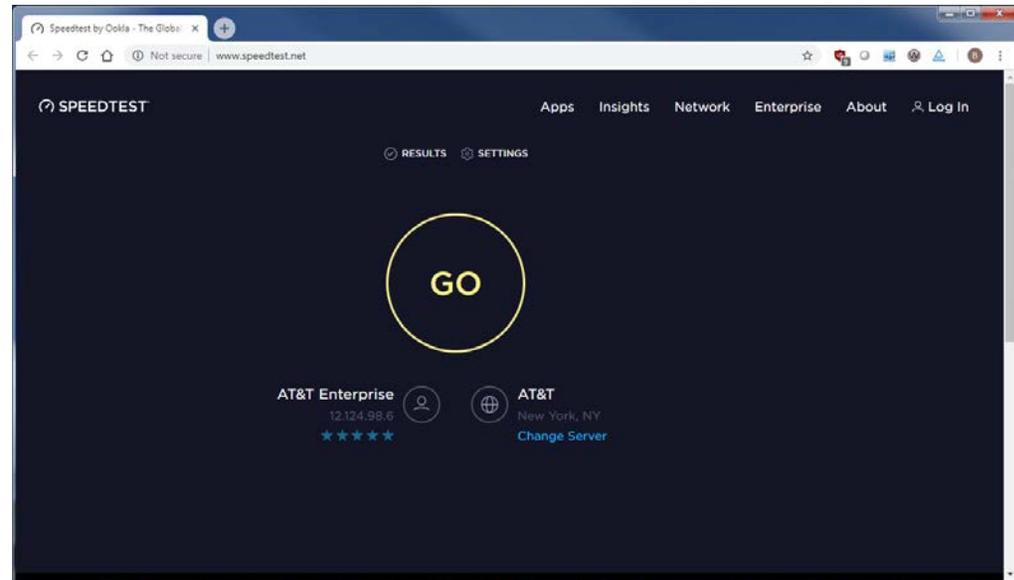
Using the Speed Test Tool

To determine the network upload and download speeds for the Internet connection you are using to access the Pearson ePortfolio system, follow the instructions below.

1. Click on this link or enter the following URL into your browser address bar:

<http://www.speedtest.net>

2. Click "Go."



- Speedtest.net will test your download speed and then your upload speed.
- A "speedometer" will appear as the website tests your network connection.
- While the "speedometer" is moving, the site is still determining your connection speed. Please do not close your browser.



- At the conclusion of the speed test, your results are displayed. The download and upload speeds are provided in Mbps (Megabits per second).
- Please note the "Download Speed" and "Upload Speed" values and provide them to Customer Support, if you were asked to do so.
- You may now close your browser.



If Your Internet Connection Is Too Slow

Use the following chart to help identify steps you can take to ensure your video uploads successfully.

If Your Upload Speed Is:	And Your File Size Is*:	Please Try the Following:
Less than 1.5 Mbps	Less than 200 MB	Try to upload on your institution network or another broadband network.
	200 MB or greater	Compress your video to a smaller file size.
1.5 Mbps or greater	Less than 200 MB	Try to upload again on your primary network connection, possibly at a different time of day. Try to upload on your institution network or another broadband network.
	200 MB or greater	Compress your video to a smaller file size.

* Video files must be in one of the following video file formats: .flv, .asf, .qt, .mov, .mpg, .mpeg, .avi, .wmv, .mp4, or .m4v. If it is not, try to convert your video to the appropriate format using the software for your digital video camera. Compression and conversion instructions are available for both PC and Mac computers along with other helpful information at www.nbpts.org/national-board-certification/candidate-center/eportfolio-submission.

Submitting Files

If you are having problems submitting your files:

Symptoms	Likely Causes	What to Do	Where to Find More Information
File was uploaded, but cannot be viewed in the ePortfolio system	The file may still be uploading, or the system may be processing your file.	Wait for the system to display the "Ready" status. If the "Ready" status is displayed and you can't view your file, you may need to update your web browser.	Refer to the video tutorials available at www.nbpts.org/national-board-certification/candidate-center/eportfolio-submission for additional information and step-by-step instructions.
Files have been uploaded but the Entry Part cannot be marked "Ready to Submit"	The system may be processing your file, or the minimum file requirement has not been met for the Part.	Ensure that the minimum file requirements have been met and that the system has finished processing. Click the Refresh button and then try to click "Ready to Submit" again.	
Files have been uploaded but the Portfolio Entry cannot be submitted	Not all Entry Parts have been marked "Ready to Submit."	Make sure each Part displays a "Ready to Submit" status on the Portfolio Summary page.	

Additional Resources

Please visit www.nbpts.org/national-board-certification/candidate-center/eportfolio-submission for other helpful resources, including technical guides, video tutorials, and Frequently Asked Questions.



Content Area Standards

Mathematics Standards

Third Edition

for teachers of students ages 11–18+

■ For additional information go to www.boardcertifiedteachers.org

*National Board Certification
Promotes Better Teaching,
Better Learning, Better Schools*

©2010 (Preface revised and reformatted in 2015, 2016) National Board for Professional Teaching Standards. All rights reserved. NBPTS, NBCT, National Board for Professional Teaching Standards, National Board Certified Teacher, National Board Certification, Take One!, Accomplished Teacher and 1-800-22TEACH are registered trademarks or service marks of the National Board for Professional Teaching Standards. Other marks are trademarks or registered trademarks of their respective organizations.

The contents of this publication were developed in whole or in part under a grant from the U.S. Department of Education. However, those contents do not necessarily represent the policy of the Department of Education, and you should not assume an endorsement by the federal government.

ISBN 978-1-878520-44-9

Table of Contents

Preface	4
About the National Board for Professional Teaching Standards	4
About the Standards	6
About Certification	7
Foundation of National Board Certification for Teachers	8
Five Core Propositions	8
Architecture of Accomplished Teaching	11
Standards	12
Introduction	12
Mathematics Standards Statements	16
Standard I: Commitment to Mathematics Learning of All Students	18
Knowledge of Mathematics, Students, and Teaching	21
Standard II: Knowledge of Mathematics	21
Standard III: Knowledge of Students	30
Standard IV: Knowledge of the Practice of Teaching	32
The Teaching of Mathematics	36
Standard V: Learning Environment	36
Standard VI: Ways of Thinking Mathematically	38
Standard VII: Assessment	41
Professional Development and Outreach	43
Standard VIII: Reflection and Growth	43
Standard IX: Families and Communities	46
Standard X: Professional Community	48
Standards Committees	50
Acknowledgments	52

Preface

About the National Board for Professional Teaching Standards

The National Board for Professional Teaching Standards (National Board) is a not-for-profit professional organization, created and governed by practicing teachers and their advocates. The founding mission of the National Board is to advance the quality of teaching and learning by

- maintaining high and rigorous standards for what accomplished teachers should know and be able to do;
- providing a national voluntary system certifying teachers who meet these standards; and
- advocating related education reforms to integrate National Board Certification into American education and to capitalize on the expertise of National Board Certified Teachers.

Recognized as the “gold standard” in teacher certification, the National Board believes higher standards for teachers means better learning for students.

Founded in 1987, the National Board began by engaging teachers in the development of standards for accomplished teaching and in the building of an assessment—National Board Certification—that validly and reliably identifies when a teacher meets those standards. Today, there are 25 certificate areas that span 16 content areas and four student developmental levels. The essence of the National Board’s vision of accomplished teaching is captured in the enduring document *What Teachers Should Know and Be Able to Do*, at the heart of which are the Five Core Propositions:

1. Teachers are committed to students and their learning.
2. Teachers know the subjects they teach and how to teach those subjects to students.
3. Teachers are responsible for managing and monitoring student learning.
4. Teachers think systematically about their practice and learn from experience.
5. Teachers are members of learning communities.

The National Board believes that board certification should become the norm, not the exception, and should be fully integrated into the fabric of the teaching profession. In other professions, such as medicine, engineering, and architecture, board certification has helped to create a culture of accomplished practice and is a major reason why those professions are held in such high regard by the public. Those professions did what teaching must now do: strengthen the coherent pipeline of preparation that begins in pre-service and continues through board certification and beyond, with each step engineered to help teachers develop toward accomplished. More than 110,000 teachers had achieved board certification by 2014, a number which represents the largest group of identified teaching experts in the country. Given the size of the teaching workforce, however, this sizable number represents fewer than 3 percent of teachers.

For most children that means they go through their entire schooling without being taught by a board-certified teacher. Each teacher who pursues board certification helps to close this gap, strengthening the profession and the quality of teaching and learning. In a world where board certification is the standard that all teachers aspire to and most achieve, students experience accomplished teaching throughout their schooling, unleashing their potential.

About the Standards

Every child deserves an accomplished teacher—one who is qualified to equip students with the skills to succeed in a global community. The core mission of the National Board for Professional Teaching Standards is to create field-specific standards for accomplished teaching that are grounded in the Five Core Propositions and that articulate the actions that accomplished teachers employ to advance student learning. Each standards document represents a professional consensus on the attributes of practice that distinguish accomplished teaching in that field. Many school systems use the standards as the basis for ongoing professional development, and many colleges and universities incorporate the standards into their undergraduate and graduate teacher education programs.

Standards are developed and revised by a committee of 12–15 members who are representative of accomplished professionals in their field. A majority of standards committee members are practicing Board certified teachers. Other committee members are experts in academic content and child development, including teacher educators, researchers, and other professionals in the relevant field. Standards are disseminated widely for public comment and subsequently revised as necessary before adoption by the National Board's Board of Directors.

Throughout the development of both the standards and the certification process, the National Board ensures broad representation of the diversity that exists within the profession; engages pertinent disciplinary and specialty associations at key points in the process; collaborates closely with appropriate state agencies, academic institutions, and independent research and education organizations; and establishes procedures to detect and eliminate instances of external and internal bias.

National Board Standards and certifications are defined by the developmental level of the students and by the subject or subjects being taught. Teachers select the subject area that makes up the substantive focus of their teaching. They may choose Generalist certificates if they do not focus on one particular subject area in their practice. The four overlapping student developmental levels (listed below) indicate the age of the majority of their students.

- Early Childhood (EC)—ages 3–8
- Middle Childhood (MC)—ages 7–12
- Early Adolescence (EA)—ages 11–15
- Adolescence and Young Adulthood (AYA)—ages 14–18+

About Certification

National Board Certification® is a voluntary, standards-based process designed for teachers to transform the Five Core Propositions into practice. In order to be eligible for certification a teacher must

- Hold a baccalaureate degree from an accredited institution¹;
- Have a minimum of three years' teaching experience at the early childhood, elementary, middle school, or high school level; and
- Where it is required, hold a state teaching license.

The assessments, aligned with the Five Core Propositions and the standards, are designed so that teachers demonstrate their practice by providing evidence of what they know and do. The evidence-based assessment honors the complexities and demands of teaching.

In 2014, the National Board initiated revision of the assessment to make the process more flexible, affordable, and efficient for teachers. In all certificate areas, candidates for National Board Certification are now required to complete four components: three portfolio entries, which are submitted online, and a computer-based assessment, which is administered at a testing center. Teachers develop portfolio entries that require analysis of their practice as it relates to student learning and to being a reflective, effective practitioner. Designed to capture what a teacher knows and is able to do in real time and in real-life settings, the portfolio consists of description, analysis, and reflection focused on student learning that is captured on video and in student work samples. The process requires teachers to reflect on the underlying assumptions of their practice and the impacts of that practice on student learning.

Teachers also demonstrate content knowledge by responding to open-ended and multiple choice questions delivered at a secure testing site. The assessment center component complements the portfolio, validates that the knowledge and skills exhibited in the portfolio are accurate reflections of what a candidate knows, and provides candidates with opportunities to demonstrate knowledge and skills not sampled in the portfolio.

Assessments are based on the standards and are developed for every certificate area by educators who specialize in the same content and student developmental level as the candidates. Educators who are themselves practitioners in the certificate area score the submitted portfolio entries. They must successfully complete intensive training and qualify for scoring on the basis of their understanding of National Board Standards and scoring guidelines.

¹ Candidates registering for the Career and Technical Education certificate are required to hold a bachelor's degree only if their state required one for their current license.

Foundation of National Board Certification for Teachers

Five Core Propositions

The National Board framework for accomplished teaching was established in its 1989 publication, *What Teachers Should Know and Be Able to Do*. The Five Core Propositions serve as the foundation for all National Board standards and assessments, defining the level of knowledge, skills, abilities, and commitments that accomplished teachers demonstrate. Teachers embody all Five Core Propositions in their practices, drawing on various combinations of these skills, applications, and dispositions to promote student learning.

1. Teachers are committed to students and their learning.

Accomplished teachers base their practice on the fundamental belief that all students can learn and meet high expectations. They treat students equitably, recognizing the individual differences that distinguish one student from another and taking account of these differences in their practice. They adjust their practice based on observation and understanding of their students' interests, abilities, skills, knowledge, language, family circumstances, and peer relationships. They view students' varied backgrounds as diversity that enriches the learning environment for every student.

Accomplished teachers understand how students develop and learn. They consult and incorporate a variety of learning and development theories into their practice, while remaining attuned to their students' individual contexts, cultures, abilities, and circumstances. They are committed to students' cognitive development as well as to students' ownership of their learning. Equally important, they foster students' self-esteem, motivation, character, perseverance, civic responsibility, intellectual risk taking, and respect for others.

2. Teachers know the subjects they teach and how to teach those subjects to students.

Accomplished teachers have a rich understanding of the subject(s) they teach and appreciate how knowledge in their subject is created, organized, linked to other disciplines, and applied to real-world settings. While maintaining the integrity of disciplinary methods, content, and structures of organization, accomplished teachers develop the critical and analytical capacities of their students so they can think for themselves.

Accomplished teachers command specialized knowledge of how to convey and reveal subject matter to students. They are aware of the preconceptions and background knowledge that students typically bring to each subject and draw upon pedagogical and subject matter understandings to anticipate challenges,

modify their practice, and respond to students' needs. They also demonstrate a commitment towards learning about new strategies, instructional resources, and technology that can be of assistance. Their instructional repertoire and professional judgment allow them to generate multiple paths to knowledge in the subjects they teach, and they are adept at teaching students how to pose and solve their own problems so they can continue exploring and advancing their understanding.

3. Teachers are responsible for managing and monitoring student learning.

Accomplished teachers view themselves as facilitators of student learning within dynamic instructional settings. They create, enrich, maintain, and alter learning environments while establishing effective ways to monitor and manage those environments and the student learning that occurs within them. They possess a comprehensive knowledge of instructional methods, know when each is appropriate, and can implement them as needed. They use instructional time constructively and efficiently, customizing physical layout, resources, and instructional methods. They enlist the knowledge and support of a wide range of stakeholders to provide their students with enriched opportunities to learn. They understand the strengths and weaknesses of pedagogical approaches they may take, as well as the suitability of these approaches for particular students.

Accomplished teachers know how to engage students in varied settings and group configurations. They create positive and safe learning environments that guide student behavior and support learning, allowing the schools' goals for students to be met. They are adept at setting norms for social interaction among students and between students and teachers. They understand how to motivate students and value student engagement, supporting them as they face and learn from challenges.

Accomplished teachers assess the progress of individual students as well as that of the class as a whole. They apply their knowledge of assessment to employ multiple methods for measuring student growth and understanding. They use the information they gather from monitoring student learning to inform their practice, and they provide constructive feedback to students and families. They collaborate with students throughout the learning process and help students engage in self-assessment.

4. Teachers think systematically about their practice and learn from experience.

Accomplished teachers possess a professional obligation to become perpetual students of their craft. Committed to reflective learning, they are models of educated persons. They exemplify the virtues they seek to inspire in students—curiosity, honesty, fairness, respect for diversity and appreciation of cultural differences—and the capacities that are prerequisites for intellectual growth: the ability to reason and take multiple perspectives, to be creative and take risks, and to adopt an experimental and problem-solving orientation.

Accomplished teachers draw on their knowledge of human development, subject matter, and instruction, and their understanding of their students to make principled judgments about sound practice. Their decisions are not only grounded in established theories, but also in reason born of experience. They engage in lifelong learning, which they seek to encourage in their students.

Accomplished teachers seek opportunities to cultivate their learning. Striving to strengthen their teaching and positively impact student learning, teachers use feedback and research to critically examine

their practice, seek to expand their repertoire, deepen their knowledge, sharpen their judgment and adapt their teaching to new findings, ideas and theories.

5. Teachers are members of learning communities.

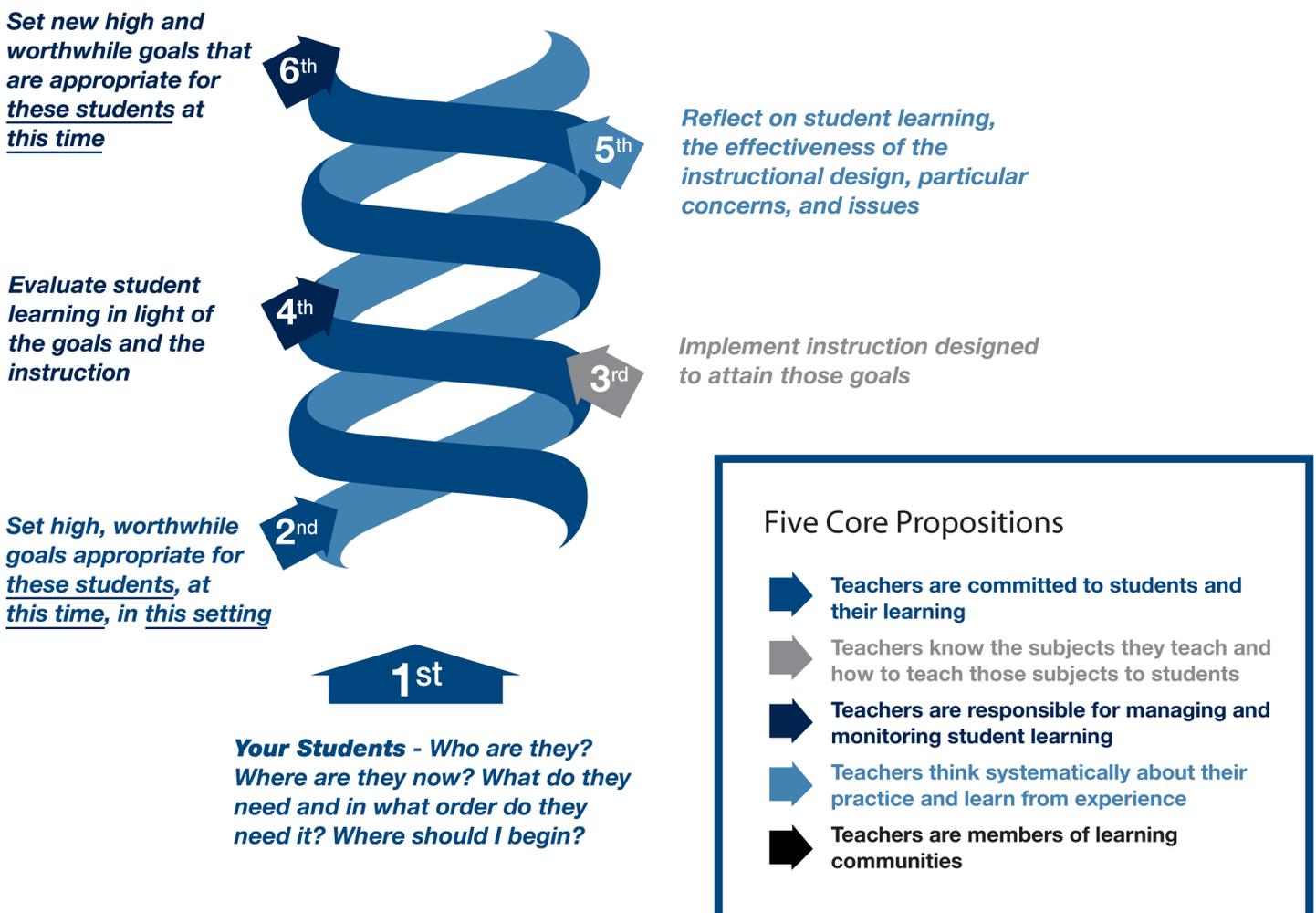
Accomplished teachers participate actively in their learning communities to promote progress and achievement. They contribute to the effectiveness of the school by working collaboratively with other professionals on policy decisions, curriculum development, professional learning, school instructional programs, and other functions that are fundamental to the development of highly productive learning communities. They work collaboratively and creatively with families and the community, engaging them productively in the work of the school and cultivating students' connections with the opportunities, resources, and diversity they afford.

Accomplished teachers can evaluate school progress and the allocation of school resources in light of their understanding of state and local educational objectives and their knowledge of student needs. They are knowledgeable about and can advocate for specialized school and community resources that can be engaged for their students' benefit, and are skilled at employing such resources as needed.

Architecture of Accomplished Teaching

The Architecture of Accomplished Teaching provides a view of how the use of the Five Core Propositions and the standards that are developed from them result in student learning. As depicted in the Architecture of Accomplished Teaching illustration, shown below, one strand represents teaching practice as grounded in the Five Core Propositions, while the other strand represents the teacher’s impact on students and their learning.

The Architecture of Accomplished Teaching: What is underneath the surface?



The National Board program certifies accomplished teachers who positively influence student learning through effective teaching practice. The process includes the core propositions for all teachers, a common set of accomplished teaching standards specific to the content field and students’ developmental levels, and a set of evidence-based assessments specific to the field that certify what accomplished teachers know and do.

Standards

Introduction

Balancing precision, rigor, and reasoning with opportunities for students to marvel at the elegance and often surprise embedded in doing mathematics, accomplished mathematics teachers help students understand the field as a place of truth, offering insight into the persistent human effort to make sense of the world's order, chaos, stability, and change. In a world where unexamined assumptions are often held as true, mathematicians pursue questions of “why” or “how,” demonstrating a remarkable history of intellectual service to problem solving and decision making across time and cultures. Accomplished mathematics teachers seek to support students' learning of not only procedures and concepts, but also to appreciate the wonder and beauty of mathematical problems, solutions, and connections that draw students into further study and call professional mathematicians into the field.

Accomplished mathematics teachers help students grapple with fundamental concepts such as quantity, space, change, and chance, critical to understanding both mathematics and the myriad of disciplines that rely on mathematical ideas. While many believe mathematics is the sum of a variety of procedures, accomplished teachers know these procedures are connected to fundamental underlying concepts. In the classrooms of accomplished teachers, students are engaged in identifying patterns; solving problems; reasoning; forming and testing conjectures, justification, and proof; and communicating results. Students search for connections and solve problems, while reflecting on both the mathematics and their own thought processes.

Accomplished mathematics teachers appreciate the richly interconnected nature of the discipline and share that with students. Teachers identify tasks for students that communicate connections between mathematics topics and between mathematics and the world. They not only choose tasks related to everyday life—to the sciences, to economics, to politics, or to business—but they also choose tasks that will extend understanding within mathematics. Their choice of problem contexts reflects the breadth of mathematics and its applications.

Accomplished mathematics teachers use their knowledge of mathematics and of how students learn to create a stimulating and productive environment in which students are empowered to do mathematics. Teachers realize that teaching students to “think mathematically” means helping them develop a mathematical point of view in which they consistently use mathematical thinking processes; recognize situations in which mathematical reasoning might be useful; and have the abilities, skills, and confidence to take action. To encourage mathematical thinking, teachers provide opportunities for students to test their mathematical ideas, applying their growing knowledge to a variety of problems.

Accomplished teachers provide multiple opportunities to teach students to use mathematics in new and meaningful ways. Teachers help students acquire confidence in learning, doing, and understanding mathematics, becoming critical consumers who use mathematics to evaluate, analyze, and synthesize

information. Mathematics teachers have an “eye to the future,” knowing and communicating how the mathematics learned now will relate to students’ future work or education. The global nature of today’s workforce requires students who are mathematically literate and able to contribute solutions to real-world problems.

Accomplished mathematics teachers consistently use clear and unambiguous language when communicating mathematics. They have a command of vocabulary, symbols, notation and concepts required to make sense of mathematics. Accomplished teachers deliberately structure opportunities for students to use and develop appropriate mathematical discourse as they reason and solve problems. These teachers give students opportunities to talk with one another, to work together in solving problems, and to use both written and oral discourse to describe and discuss their mathematical thinking and understanding. As students talk and write about mathematics—as they explain their thinking—they deepen their mathematical understanding in powerful ways.

Teaching mathematics is invigorating, as demonstrated by the accomplished teacher’s use of different methods and strategies to engage students in the beauty and exhilaration of mathematics. Because learning mathematics is sometimes challenging, teaching it is rewarding and significant—especially when a disenchanting student does well, enhancing their self worth and making their potential seems as limitless to them as to the teacher.

Accomplished teachers value mathematics. They take joy in mathematics and communicate that joy to students. The accomplished teacher appreciates how knowledge in mathematics is created and uses the power of mathematics to fascinate students, providing them opportunities to experience the intellectual satisfaction that comes from finding a solution to a problem or justifying a conjecture.

Recognizing the important and dynamic nature of mathematics, several changes have been made by the standards committee to the *Mathematics Standards* of the National Board for Professional Teaching Standards. The most significant change is the merging of mathematics standards previously published as separate documents for two developmental levels, Early Adolescence and Adolescence and Young Adulthood. In reviewing the previous mathematics standards, the committee concluded that accomplished mathematics pedagogy is the same regardless of student developmental level, with differences surfacing in the core mathematical knowledge expected of the Early Adolescence (EA) teacher versus the Adolescence and Young Adulthood (AYA) teacher. The committee spent considerable time distinguishing what EA and AYA teachers of mathematics should know, resulting in the disclaimer at the beginning of the “Core Mathematical Knowledge” section of Standard II, “Accomplished teachers understand the major ideas in the core domains of mathematics. Although their expertise may vary in degree for particular domains, teachers have a fundamental knowledge base from which to build student mathematical understanding. However, within certain domains there are differences between the application of knowledge by the EA teacher and the AYA teacher. When this distinction occurs the AYA teacher is specifically referenced.” The committee recognized that high school teachers need to know concepts taught in middle school and both EA and AYA teachers must be familiar with mathematics at the next level, thus a merging of the EA and AYA standards contributes to the spectrum of what is expected of accomplished mathematics teachers.

There is a growing national consensus that the level of mathematical knowledge needed to graduate a productive citizenry is increasing. Thus, other issues driving changes in the mathematical knowledge standard include trends to teach core algebraic concepts in middle school and to require higher levels of mathematics for high school graduation. To reflect these higher standards for students, the committee

increased the rigor and precision of the core mathematical knowledge for the accomplished EA and AYA teacher over that found in the previous mathematics standards. Finally, the committee recognized the mathematics community is moving toward a cohesiveness of practice, collaboration, cooperation, and communication that informed the merging of EA and AYA mathematics standards.

In addition to merging the two mathematics standards documents, the committee combined several standards that were separated in one or both of the previous documents. One change is consolidation of the standard on diversity, fairness, and equity with the standard on commitment to mathematics learning. This change is a result of the committee's belief that "all students" is really "all students." Because the concepts of the art and knowledge of teaching are interdependent, the previously separated standards were combined to create one standard, "Knowledge of the Practice of Teaching."

In addition to merging the two documents and some standards the committee used more precise language in this new edition. For example, in Standards IX and X, "community" has been delineated clearly among the family community, the school community, and the professional community. As well, several terms are used with specific, yet often varying, definitions throughout the document. For example, curriculum can be defined in multiple ways; in this document unless otherwise noted, curriculum means the mathematics that is taught in the classroom. At times, however, and noted accordingly, curriculum refers to written standards. Finally, when referring to language skills, the committee recognized the barriers that language often can present. To that end, the committee provided pathways for English language learners to acquire mathematical knowledge and skills while also learning the academic language of mathematics.

These standards reflect an ideal that accomplished teachers strive to obtain, forever growing in their knowledge and practice in order to empower their students to learn and to use mathematics. The accomplished teacher's passion for mathematics and for teaching mathematics is evident in their efforts to grow professionally and in their work with students. Accomplished teachers of mathematics challenge themselves and challenge students to use mathematics in consistent, expected ways as well as in new, creative ways. Thinking mathematically includes representing, modeling, proving, experimenting, conjecturing, classifying, visualizing, and computing—all ways in which to approach mathematics and life.

Developing High and Rigorous Standards for Accomplished Practice

Mathematics Standards describes what accomplished teachers should know and be able to do. The standards are meant to reflect the professional consensus at this point about the essential aspects of accomplished practice. The deliberations of the Mathematics Standards Committee were informed by various national and state initiatives on student and teacher standards that have been operating concurrently with the development of NBPTS Standards. As the understanding of teaching and learning continues to evolve over the next several years, these standards will be updated again.

An essential tension of describing accomplished practice concerns the difference between the analysis and the practice of teaching. The former tends to fragment the profession into any number of discrete duties, such as designing learning activities, providing quality explanation, modeling, managing the classroom, and monitoring student progress. Teaching as it actually occurs, on the other hand, is a seamless activity.

Everything an accomplished teacher knows through study, research, and experience is brought to bear daily in the classroom through innumerable decisions that shape learning. Teaching frequently requires

balancing the demands of several important educational goals. It depends on accurate observations of particular students and settings, and it is subject to revision on the basis of continuing developments in the classroom.

The paradox, then, is that any attempt to write standards that dissect what accomplished teachers know and are able to do will, to a certain extent, misrepresent the holistic nature of how teaching actually takes place. Nevertheless, the fact remains: Certain identifiable commonalities characterize the accomplished practice of teachers. The standards that follow are designed to capture the knowledge, artistry, proficiency, and understandings—both deep and broad—that contribute to the complex work that is accomplished teaching.

The Standards Format

Accomplished teaching appears in many different forms, and it should be acknowledged at the outset that these specific standards are not the only way it could have been described. No linearity, atomization, or hierarchy is implied in this vision of accomplished teaching, nor is each standard of equal weight. Rather, the standards are presented as aspects of teaching that are analytically separable for the purposes of this standards document but that are not discrete when they appear in practice.

The report follows a two-part format for each of the standards:

- **Standard Statement**—This is a succinct statement of one vital aspect of the practice of the accomplished teacher of mathematics. Each standard is expressed in terms of observable teacher actions that have an impact on students.
- **Elaboration**—This passage provides a context for the standard, along with an explanation of what teachers need to know, value, and do if they are to fulfill the standard. The elaboration includes descriptions of teacher dispositions toward students, their distinctive roles and responsibilities, and their stances on a range of ethical and intellectual issues that regularly confront them.

In addition, throughout the document are examples illustrating accomplished practice and demonstrating how decisions integrate various individual considerations and cut across the standard document. If the standards pull apart accomplished teaching into discrete elements, the examples put them back together in ways more clearly recognizable to teachers. Because the National Board believes there is no single “right” way to teach students, these examples are meant to encourage teachers to demonstrate their own best practice.

Mathematics Standards Statements

The National Board for Professional Teaching Standards has organized the standards for accomplished teachers of mathematics into the following ten standards. The standards have been ordered to facilitate understanding, not to assign priorities. They each describe an important facet of accomplished teaching; they often occur concurrently because of the seamless quality of accomplished practice. These standards serve as the basis for National Board Certification in this field.

Standard I: Commitment to Mathematics Learning of All Students

Accomplished mathematics teachers acknowledge and value the individuality and worth of each student, believe that every student can learn and use mathematics, and are dedicated to their success. Accomplished mathematics teachers are committed to the fair and equitable treatment of all students—especially in their learning of mathematics.

Knowledge of Mathematics, Students, and Teaching

Standard II: Knowledge of Mathematics

Accomplished mathematics teachers have a deep and broad knowledge of the concepts, principles, techniques, and reasoning methods of mathematics, and they use this knowledge to inform curricular goals and shape their instruction and assessment. They understand significant connections among mathematical ideas and the applications of these ideas to problem solving in mathematics, in other disciplines, and in the world outside of school.

Standard III: Knowledge of Students

Accomplished teachers use their knowledge of human development and individual students to guide their planning and instructional decisions. They understand the impact of prior mathematical knowledge, home life, cultural background, individual learning differences, student attitudes and aspirations, and community expectations and values on students and their mathematics learning.

Standard IV: Knowledge of the Practice of Teaching

Accomplished mathematics teachers use their knowledge of pedagogy along with their knowledge of mathematics and student learning to inform curricular decisions; select, design, and develop instructional strategies and assessment plans; and choose materials and resources for mathematics instruction. Accomplished mathematics teachers stimulate and facilitate student learning by using a wide range of practices.

The Teaching of Mathematics

Standard V: Learning Environment

Accomplished mathematics teachers create environments in which students are active learners, show willingness to take intellectual risks, develop self-confidence, and value mathematics. This environment fosters student learning of mathematics.

Standard VI: Ways of Thinking Mathematically

Accomplished mathematics teachers develop their own and their students' abilities to reason and think mathematically—to investigate and explore patterns, to discover structures and establish mathematical relationships, to formulate and solve problems, to justify and communicate conclusions, and to question and extend those conclusions.

Standard VII: Assessment

Accomplished mathematics teachers integrate a range of assessment methods into their instruction to promote the learning of all students by designing, selecting, and ethically employing assessments that align with educational goals. They provide opportunities for students to reflect on their strengths and weaknesses in order to revise, support, and extend their individual performance.

Professional Development and Outreach

Standard VIII: Reflection and Growth

To improve practice, accomplished mathematics teachers regularly reflect on what they teach, how they teach, and how their teaching impacts student learning. They keep abreast of changes and learn new mathematics and mathematical pedagogy, continually improving their knowledge and practice.

Standard IX: Families and Communities

Accomplished mathematics teachers collaborate with families and communities to support student engagement in learning mathematics. They help various communities, within and outside the school building, understand the role of mathematics and mathematics instruction in today's world.

Standard X: Professional Community

Accomplished mathematics teachers continually collaborate with other teachers and education professionals to strengthen the school's mathematics program, promote program quality and continuity across grade levels and courses, and improve knowledge and practice in the field of mathematics education.

Standard I

Commitment to Mathematics Learning of All Students

Accomplished mathematics teachers acknowledge and value the individuality and worth of each student, believe that every student can learn and use mathematics, and are dedicated to their success. Accomplished mathematics teachers are committed to the fair and equitable treatment of all students—especially in their learning of mathematics.

Commitment to Diverse Learners

Accomplished teachers base their decisions about the teaching of mathematics on the belief that all students can learn. Teachers¹ continually determine each student's level of mathematical knowledge and understanding and build on that foundation. They are alert and sensitive to the diversity that exists in students' prior learning experiences; individual learning approaches; family,² cultural, and economic backgrounds; students' interests; and their special needs. Teachers recognize the beliefs and attitudes toward mathematics that each student brings to the classroom and promote a respect for the value of mathematics. Teachers are aware that any of these factors, as well as others, can affect how students approach the learning of mathematics. Strategies for engaging all students may come from current research, collaboration, personal experience, and professional development.

Accomplished teachers are dedicated to meeting the needs of a diverse student population. Teachers confront issues of diversity proactively to promote academic and social equity, maintaining high expectations for all learners. Mathematics teachers actively and positively challenge their own and others' biased behaviors and stereotypical perspectives. For instance, a teacher might examine why one gender is significantly outperforming the other in algebra classes. Teachers are keenly aware of the historical perspectives and biases that have created social and academic barriers for students and work to remove these obstacles, such as less rigorous mathematics for students in lower-level courses. Teachers ensure that their students receive equitable opportunities to learn and advance in mathematics by maintaining

¹ All references to *teachers* in this document, whether stated explicitly or not, refer to accomplished teachers of mathematics.

² *Family* is used in this document to refer to the people who are the primary caregivers, guardians, and significant adults of children.

the focus on standards-based concepts and skills, and they act to dispel the notion that not all students are capable of learning mathematics.

Accomplished teachers value the importance of their students' diverse cultures and backgrounds. Teachers build on the richness of the heritage and culture of all their students and give students opportunities to think in ways that are both culturally familiar and unfamiliar. Teachers recognize the unique contributions and perspectives each student brings to the learning environment. For example, the teacher may bring artwork representing the cultures of students in the school, such as Native American pottery, African American quilts, or Middle Eastern mosaics, to discuss topics of geometry such as transformations and tessellations. Teachers use this knowledge to foster positive interaction in the classroom and to support each student's mathematical growth. Teachers are aware that students' cultural backgrounds and life experiences can influence the ways they interact in the classroom and the ways students approach and learn mathematics.

Accomplished teachers are aware of the supportive attention that must be given to students who are learning English as a new language. Teachers ensure that such students are able to understand instruction and participate in class and small-group discussions; teachers may also give students who are learning English as a new language alternative assignments and assessments so that their ability to demonstrate understanding and proficiency in mathematics does not depend on their proficiency in English. Teachers work to ensure that such accommodations are made so that all students have equitable access to appropriate learning opportunities.

Accomplished teachers are aware of the issues involved in providing instruction to students with exceptionalities, including students with gifts and talents. Teachers modify curriculum, instruction, and assessments as necessary. They comply with federal, state, and local laws, regulations, and policies concerning students with unique needs. Teachers work closely with the specialists and support personnel who have valuable insights into these students, and teachers willingly team with these personnel to ensure that these students have every opportunity to achieve their educational goals and objectives. Teachers advocate for and, when possible, make use of assistive technologies—for instance, computers with voice-recognition or speech-synthesis software that can enable students with exceptional needs to communicate their thought processes and mathematical arguments.

Commitment to Mathematics Learning

Accomplished teachers help students acquire confidence in learning, doing, and understanding mathematics. Mathematics teachers focus on students, their activities, and their mathematical proficiency. In order to be mathematically proficient, students need to be able to understand the underlying concepts, achieve fluency and accuracy with procedures and algorithms, use several strategies to solve problems, communicate their thinking, understand the value of the mathematics, and believe in their ability to learn it. Teachers make the phrase “mathematics for all” come alive in their classrooms. They strive to inspire students to work diligently

to learn mathematics and encourage them to prioritize making time for learning mathematics. Genuinely committed to students, teachers let students know that they find doing and teaching mathematics a lively and enjoyable experience. With that in mind, a teacher might use gingerbread houses to engage students in topics involving measurement and proportion. Mathematics teachers create opportunities for each student to experience the satisfaction of success.

Accomplished teachers know that mathematical proficiency is essential for everyone and work to encourage all students to take more mathematics courses. Teachers also work to provide opportunities for extra-curricular activities such as mathematics clubs and competitions. Teachers develop special pedagogical strategies for students who come to them with insufficient mathematical preparation in order to bring these students' learning up to course level as quickly as possible. Teachers recognize and work to overcome barriers that might prevent students from succeeding in mathematics. Teachers provide support and encouragement to and establish relationships with families and school personnel to ensure student proficiency in mathematics.

Accomplished teachers take the extra steps required to ensure that students learn and encourage students to advance in mathematics as far as possible. It is important for teachers to know and communicate to students what is expected at the next level of mathematics. Teachers communicate connections among mathematics topics and between mathematics and the world. For example, a teacher could use a system of linear equations to model the total cost of two cell phone plans and use equations and inequalities to discuss with students appropriate domain and range values derived from the real world context. The students could then determine values for which plan would cost less. While teaching geometry topics, another real world context might include an exploration of local architecture and construction projects. Teachers have an "eye to the future," knowing and communicating how the content that mathematics students are learning now will relate to their future work or education.

Knowledge of Mathematics, Students, and Teaching

Accomplished teachers offer all students the opportunity to learn. Only by having a deep and broad understanding of mathematics can teachers organize and deliver instruction that helps students build their own deep and broad understanding of mathematics. Only by knowing their students well can teachers consistently make instructional decisions that will further students' learning. Further, only by skillfully combining their knowledge of students and mathematics with their knowledge about how to teach mathematics can teachers enable students to learn mathematics successfully. The following three standards form the foundation for the decisions and actions taken by accomplished mathematics teachers. They are the basis for the six remaining standards.

Standard II Knowledge of Mathematics

Accomplished mathematics teachers have a deep and broad knowledge of the concepts, principles, techniques, and reasoning methods of mathematics, and they use this knowledge to inform curricular goals and shape their instruction and assessment. They understand significant connections among mathematical ideas and the applications of these ideas to problem solving in mathematics, in other disciplines, and in the world outside of school.

Mathematics is a fundamental tool in the persistent human effort to make sense of the world—its order, chaos, stability, and change. It has applications, for example, in scientific, technological, economic, and political arenas. Although it is one of the oldest disciplines of human knowledge and thought, the field of mathematics continues to grow and evolve. New concepts, principles, and methods become a part of the discipline each year. For example, the concept of fractals and the theory of computational complexity have been developed during the lifetime of many of today's teachers.

Accomplished teachers have a deep and broad understanding of the mathematics well beyond the level they teach. For example, an early adolescence teacher could

demonstrate how transformations of shapes that are studied at the pre-algebra level will relate to transformations of functions encountered in higher-level algebra. Their knowledge encompasses not only the details, rules, and procedures of mathematics, but also the larger themes and connecting ideas that tie together its various strands. In some higher-level mathematics courses, an adolescence young adulthood teacher could guide students to apply their prior knowledge about solutions to linear equations and to systems of linear equations in their study of non-linear equations and systems of non-linear equations. This rich, conceptual knowledge of mathematics allows them to make decisions about what to emphasize in the planning of lessons. Their knowledge base makes them well aware of where their students are headed—individually and as a group—and how to move them to continually deepening levels of mathematical understanding. This knowledge of mathematical principles, ideas, and reasoning allows teachers to monitor and adjust their teaching continuously, directing students toward key understandings that arise naturally from students' work by asking questions and guiding discourse toward these understandings.

To teach effectively, accomplished teachers have a sound foundation in the disciplines that compose mathematics. They understand the history of mathematics and how knowledge in this area has developed over time. They know the ways of thinking, talking, and writing about mathematics and have enough experience with them to share them with their students. They help students develop the ability to think mathematically and to communicate correctly about mathematics both verbally and in writing. These teachers know their field well enough to understand the challenges associated with establishing the body of knowledge that constitutes the field.

Accomplished teachers view the discipline from several perspectives and have a broad and rich understanding of the knowledge base that informs the mathematics curriculum—in particular, number and operation, algebra and functions, geometry, trigonometry, discrete mathematics, data analysis and statistics, and calculus. Teachers are fluent in the skills and conceptual developments within each discipline and draw on this knowledge to design lessons that are both mathematically substantive and pedagogically sound. Teachers are also aware of the role their knowledge of mathematics can play in advancing student learning. Consequently, these teachers demonstrate breadth as well as depth of knowledge to support their teaching.

To make classroom decisions that support student learning, accomplished teachers must understand both mathematics and students and, as teachers, must continue to grow in their understanding. (See [Standard I—Commitment to Mathematics Learning of All Students](#)) for a definition of mathematical understanding. To help students acquire and then build on the ideas, methods, and skills that underlie mathematics; to see relationships among these elements; and to make significant applications of them, mathematics teachers must have a broad and well-integrated knowledge of these underlying ideas, as well as the methods and techniques of mathematics. Teachers must appreciate the richly interconnected nature of the discipline and share that with students.

Accomplished teachers know the productive connections between mathematics and other fields of human endeavor—connections that have given mathematics a remarkable history of intellectual service to problem solving and decision making across time and cultures. Teachers have a broad understanding of the methodology of the axiomatic system and know that this methodology is shared by the physical sciences. Teachers see that mathematics and the sciences in general both rely on recognizing patterns in order to make generalizations and develop understanding. Teachers understand the importance of proof and how it works in establishing truth and in providing a standard of rigor that sets mathematics apart from other disciplines.

A strong force in the contemporary evolution of mathematics—and of mathematics teaching—is the power of modern computational technology. As a result of the growing use of this technology, some problems and topics are becoming more accessible to students, along with new ways to represent and manipulate mathematical information. Accomplished teachers have knowledge of current technology and are fluent with its use.

Contexts for Mathematics

Accomplished teachers understand the foundations of abstract concepts and techniques related to concrete cases, and they use this understanding to make curricular and instructional decisions and to help students make connections across disciplines. Teachers appreciate the historical course through which mathematical ideas have developed and the ways different cultures have influenced and contributed to that development.

An accomplished teacher's knowledge of the context within which mathematics has evolved is useful and includes the following:

- Knowledge of the major threads in the historical development of key mathematical ideas—the conceptual stumbling blocks and insights that provided important breakthroughs—and the contributions of various individuals and cultures to those developments.
- Knowledge of the ways mathematical ideas have been and remain fundamental to practical and scientific progress in fields related to mathematics. This includes applications for the major concepts and techniques of core content topics in the school curriculum, as well as the modeling processes that are fundamental to effective applications of mathematics. Such applications provide a basis for thinking about and using mathematics. Effective use of technology is an essential part of this modeling and application process.
- Knowledge of a set of analytical techniques and the ability to recognize when the techniques are appropriate to apply in real situations.

Mathematics is often described by naming important concepts, facts, and operations in its major topic strands. However, throughout those strands, accomplished mathematics teachers always keep in mind and apply the following essential guiding principles:

- Communication of mathematics with precision—teachers know that mathematics does not tolerate ambiguities and that no mathematical statement can be regarded as correct if it is correct in some, but not all, possible circumstances. For example, the statement “if x, y, z are numbers and $x < y$, then $zx < zy$ ” would be correct to most people because “numbers” to them means only positive numbers, but it must be regarded as an incorrect statement because it is wrong when z is zero or negative.
- Acknowledgement of the need for precise definitions—teachers know that definitions are the bedrock upon which logical arguments rest. They know that an explanation of a mathematical assertion cannot be based on concepts only vaguely understood. For example, without a precise definition of “similarity,” it is impossible to give an explanation of the fact that the graphs of all quadratic functions are similar to each other.
- Ability to support mathematical assertions with reasoning—teachers know that, in mathematics, the truth of a statement is established not by the authority of the person who makes it but by a logical explanation. Teachers can use reasoning to derive standard formulas and algorithms (e.g., the quadratic formula, the area formula of a circle).
- Ability to think about mathematics, not as a collection of isolated facts but as a whole fabric—teachers know (1) the importance of specific mathematics topics (e.g., Why study non-linear functions?); (2) the usefulness of mathematics topics in relation to others (e.g., the criteria for similar triangles are useful for showing that the graph of a linear equation is a straight line); and (3) the connections among mathematics topics (e.g., the concept of division for whole numbers is the same as that of division for fractions, rational numbers, and complex numbers; or the fundamental role played by the concept of congruence in the definition of area or volume).
- Knowledge of mathematics as the focused response to the need for solutions to major problems—for example, geometric measurements arose from the need to compare sizes in farming and bartering, and calculus resulted from the need to study change. Consequently, teachers come to value the central importance of problem solving in mathematics.
- Knowing that solutions to problems are usually not achieved immediately or without considerable thought—the process of solving problems often evolves from simple, heuristic arguments and strategies to precise and rigorous ones. Teachers, therefore, know that part of problem solving includes the use of heuristic arguments as a guide (e.g., the testing of extreme cases, the search for specific examples to shed light on the general case, and the use of visual representations).

Core Mathematical Knowledge

Accomplished teachers understand the major ideas in the core domains of mathematics. Although their expertise may vary in degree for particular domains, teachers have a fundamental knowledge base from which to build student mathematical understanding. However, within certain domains there are differences between the application of knowledge by the early adolescence teacher and the adolescence-young adulthood teacher. In this document, when this distinction occurs, the adolescence-young adulthood teacher is specifically referenced. Core mathematical knowledge includes numbers and operations, algebra and functions, geometry, discrete mathematics, trigonometry, data analysis and statistics, and calculus. (This list of topics is not intended to indicate a specific order of study.)

Numbers and Operations

Accomplished teachers understand basic concepts of numbers and operations and can model them in a variety of ways. Teachers understand the conceptual basis for the number systems—the relationships between and among whole numbers, integers, rational, real, and complex numbers. Teachers understand that the backbone of school mathematics is the rational number system. They should be able to explain the reasoning behind the algorithms of rational number operations. They recognize the pervasiveness of proportionality across mathematical strands and can use that concept as a model in describing a variety of situations, including those calling for ratios and percent. They understand the need for making estimates and also know what situations call for estimates rather than exact answers, and vice versa.

Algebra and Functions

Accomplished teachers recognize algebra as a language for expressing generality and abstraction. They also recognize that a foundational skill in algebra is the correct and fluent use of symbols and expressions containing symbols. They can demonstrate and apply the critical role and ubiquitous nature of the abstract laws of associativity, commutativity, and distributivity in symbolic manipulations, especially in the solution of equations. Accomplished teachers of adolescents and young adults, having internalized the processes of abstraction and generalization and being familiar with the concept of a ring, will recognize the structural similarity between integers and polynomials. Familiar with the concept of a field, they will also recognize the connection between fractions and rational expressions.

In the context of linear functions, accomplished teachers understand the role of units in problems of rate. In that same context they have knowledge of linear transformations and matrices. Teachers know that the quadratic formula is the apex of a development that yields all desirable information about quadratic equations. They know that the definition of an exponential function ax depends on a correct definition of the rational powers of positive numbers and why all such exponential functions with $a > 0$ and $a \neq 1$ are either increasing or decreasing. They know when a function has an inverse function. Mathematics teachers know that the logarithmic function is important in mathematics because it transforms multiplication into addition. They can

use the technique of mathematical induction to write proofs, such as the summation formula of an arithmetic sequence and the binomial theorem. Accomplished teachers also know that algebra deals only with finite processes and that infinite processes, such as limits, belong to calculus. Teachers also understand, however, that algebra can be used to do some things that typically use calculus, such as finding the maximum or minimum of a quadratic function. It is a simple task in calculus, but accomplished teachers know that it can also be done easily using only algebra.

Accomplished teachers understand the interplay among numerical, symbolic, verbal, and graphical representations of quantitative relationships and the role and means of transforming and simplifying these representations. Teachers are proficient in using concepts and symbolic expressions for working with families of functions, such as polynomial, exponential, rational, logarithmic, and trigonometric families.

Geometry

Accomplished teachers know that geometry is the analytic study of spatial information and that the description of spatial information requires precision. For this reason, exact definitions are extremely important, and accomplished teachers are fluent in their use of them. Teachers also recognize that using definitions in geometry is a means to an end rather than the end itself, which is the use of definitions to draw conclusions about space. Accomplished teachers, for example, might use definitions to prove theorems about parallel lines, congruent figures, similar figures, or circles.

Accomplished teachers know that the presence of proofs is not an isolated incident limited to geometry but is an integral part of mathematics as a whole, as well as of many non-mathematical domains. Teachers know that the basic isometric transformations—reflections, rotations, and translations—underlie the concept of congruence and that the concept of dilation, together with congruence, provides a precise definition of similarity. They also know that similar triangles are basic to understanding why the graph of a linear equation in two variables is a line.

Accomplished teachers know that an axiomatic system is set up solely for the purpose of organizing systematically a body of knowledge and that a valid presentation of geometry is not dependent on having a collection of axioms. At the same time, they are also aware that an axiomatic treatment of geometry leads to a fuller understanding of non-Euclidean geometries. They know that the most important aspect of any proof is to be explicit at each step about the hypothesis assumed and the conclusions to be proved.

Accomplished teachers know the basic geometric constructions and are aware that the solutions to some of the classical construction problems involving a straight edge and a compass depend on algebra and higher mathematics.

Accomplished teachers know that the essence of geometric measurement—be it length, area, or volume—is fixing a unit of measurement and then using the unit to “measure” another geometric figure, in the sense of “fitting” as many units or

fractional parts thereof as possible into the figure. They know that the most common units chosen for length, area, and volume are, respectively, the unit interval $[0, 1]$, the unit square, and the unit cube. Teachers understand the fundamental role played by the concept of congruence in geometric measurements.

Accomplished teachers can derive with ease the standard area formulas for rectangles, triangles, parallelograms, trapezoids, and circles, as well as the area of any polygon. Teachers can explain the volume formula of a cylinder with an arbitrary base, such as a circle, triangle, or regular polygon, and how it relates to the volume of the cone on the same base.

Trigonometry

Accomplished teachers know that the definitions of trigonometric functions for acute angles make sense only because of the theory of similar triangles. Teachers can use the unit circle to extend the definitions of the trigonometric functions from acute angles to all angles. They know that the x and y coordinates on the unit circle are the cosine and sine of the corresponding central angle. They also know that, at this point, the use of radians for angle measurement is more appropriate because the formulas in calculus are simplified by the use of radians. They know that the Pythagorean Theorem and the sine and cosine addition formula are all that is needed in trigonometric identities. Accomplished teachers of adolescents and young adults also know the relation of the sine and cosine addition formulas with the complex exponential function ($e^{i\theta} = \cos\theta + i\sin\theta$).

Discrete Mathematics

Discrete mathematics at the pre-university level is a non-unified collection of topics dealing with finite and discrete phenomena that are often connected to other areas of mathematics. Accomplished teachers are acquainted with certain topics about finite collections of objects, or infinite collections without involving limits. They know finite probabilities in terms of careful counting leading to standard permutations and combinations using binomial coefficients, such as how many ways can you make a group of three objects from a collection of five objects. They also know modular systems, for example clock arithmetic, and their arithmetic operations, including the fact that the arithmetic of base 2 is used in computers and coding.

Accomplished teachers know how to use truth tables to clarify the idea of logical implications, including the concepts of converse and contrapositive. For example, all teachers should know that the statement, “If it rains, then I bring an umbrella,” is not equivalent to the statement, “If I have an umbrella, then it is raining.”

An accomplished teacher is adept at handling infinite sequences, such as arithmetic and geometric sequences. They also know how to define sequences recursively, such as the Fibonacci sequence.

In addition, teachers of adolescents and young adults should be well acquainted with the basic definitions of graphs, including circuits, Euler circuits, and trees.

Data Analysis and Statistics

Accomplished teachers use both quantitative and qualitative approaches when answering questions involving data. To do so, they collect, organize, represent, and reason about data using a variety of numeric, graphic, and algebraic concepts and procedures, and they look for ways to describe and model patterns in data. They know how to interpret and draw inferences from data to make decisions in a wide range of applied problems, as well as how to use simulations to investigate situations.

Accomplished teachers understand that what separates the study of statistics from other areas of mathematics is the inherent variability in data. They understand the various sources of variability and how variability is at the heart of statistical reasoning and measurement. They understand why mean, median, and mode are useful, and they appreciate the meaning of each measure of variability within a context. Teachers understand that a goal of data interpretation is to help students become more discriminating consumers of information.

Accomplished teachers of adolescents and young adults understand the concepts behind basic inferential techniques and concepts such as confidence intervals and hypothesis testing. In addition, they are aware of the advantages, limitations, and appropriateness of each technique. They understand that statistical inference goes beyond describing data and involves using formal probabilistic methods to support or refute generalizations about populations based on samples, using the methods and language of probability.

Calculus

Accomplished teachers should be knowledgeable about the basic concepts of calculus, for example continuity, differentiation, and integration. For instance, teachers understand why there is a relationship between the limit of the function $1/x$ as x approaches zero and the y -axis as an asymptote of the function. They also understand the concept that the derivative of a function at a point can vary as the point changes. Whereas in algebra one can deal only with average rates of change, the mathematics teacher knows that with calculus one can address instantaneous rates of change. The teacher knows that because functions arise from all branches of science, calculus continues to play a central role in the sciences.

Accomplished teachers of adolescents and young adults are skilled in computations involving limits, derivatives, and integrals and their applications. For example, they can compute the area between two curves and two vertical lines. They are knowledgeable about the theoretical foundations of calculus so that they can help their students make sense of various computational procedures for problem solving. Teachers of adolescents and young adults understand the fundamental role of the limit concept in all of calculus (continuity, summation of infinite series,

differentiation, integration) and that the existence of these limits depends on the completeness of real numbers. They can supply reasoning for various theorems, such as the intermediate value theorem and the existence of maxima and minima for continuous function on finite closed intervals. They can also make use of technology to help students understand the limit process.

Standard III

Knowledge of Students

Accomplished teachers use their knowledge of human development and individual students to guide their planning and instructional decisions. They understand the impact of prior mathematical knowledge, home life, cultural background, individual learning differences, student attitudes and aspirations, and community expectations and values on students and their mathematics learning.

Accomplished teachers know their learners and use that knowledge to determine instruction. Accomplished teachers must know students well, both as early adolescent through young adult learners and as individuals learning mathematics. Mathematics teachers know that adolescents experience many intense emotional, physical, social, and intellectual changes over a relatively short period of time and that these changes may affect instruction and learning. At the same time, teachers know that the energy adolescents bring to the classroom might contribute to rich learning opportunities if channeled into appropriate activities. Teachers allow students to communicate their ideas while still guiding conversations toward the concepts being learned. Teachers also find ways to motivate students through connections to students' worlds. For example, teachers might relate mathematic problems to currently available technology. Teachers realize that beyond interests in material items, students are dealing with finding a sense of belonging, which can directly affect what they are willing to do in front of their peers.

Accomplished teachers recognize the variability in student development as students mature. Teachers understand the process of cognitive development in young people and know that students' cognitive profiles differ. Teachers work collaboratively with specialists, as necessary, and support every student while maintaining high standards. Teachers also recognize the wide-ranging mathematics backgrounds students have. Teachers help students internalize the language of mathematics and its processes while recognizing that students learn through varying approaches.

Accomplished teachers are also aware of the dispositions that students bring to and develop in the classroom. Such attitudes may include math anxiety, fear of failure, confidence in doing mathematics, perseverance, and valuing mathematics. These teachers are able to construct lessons and activities that build on and foster positive attitudes and minimize negative ones.

Accomplished teachers are aware of the different ways in which students learn mathematics. In designing lessons, accomplished mathematics teachers are sensitive to how students with differing strengths, interests, and ways of learning come to understand mathematics, and how these students develop the reasoning processes and attitudes that characterize mathematical thinking. Teachers continuously update their knowledge, staying abreast of changes and strategies that most effectively address the ever-changing needs of students. This may be accomplished by participating in lesson studies, attending conferences, and reading professional journals. For example, after attending a conference, teachers could enter into an action research study implementing ideas learned at the conference. Teachers recognize the merits and limitations of different approaches to teaching and realize that all students benefit from a multiplicity of approaches that allow them to consider important mathematical ideas and concepts from several perspectives. For instance, a teacher could transform real world data into a graphical representation and then into a symbolic form to help students internalize the concept of an exponential function. On the other hand, teachers recognize that all students need to increase their comfort level with abstract reasoning as they progress through grade levels. For example, the concepts of limits and infinity could be illustrated by examining how the limit of $1/2, 2/3, 3/4, \dots, n/(n+1)$... is 1.

The practice of accomplished teachers is distinguished by their capacity to integrate the goals of the curriculum with each student's knowledge base. Teachers notice those students in all groups who have developed exceptionally high abilities or affinities and tailor programs to provide challenges and opportunities that support these students. These teachers' lessons succeed, in part, because of their ability to recognize students' strengths and to assess, anticipate, and address student difficulties, understandings, and misconceptions. (See [Standard VII—Assessment](#).)

Accomplished teachers identify the strengths, interests, and experiences particular students bring to the mathematics classroom. When students do not have the prerequisite skills or have not had experiences conducive for studying a certain concept or skill, mathematics teachers adapt their teaching to acknowledge the skills and experiences of those students. Other strategies might include working with individual students, coordinating remediation opportunities, working with parents, or communicating with teachers in previous grades or courses. In addition, teachers know how to build upon students' strengths as they develop, using them to deepen students' knowledge in mathematics and to encourage them to apply mathematical understanding to other fields.

Accomplished teachers blend their knowledge of students, how students see mathematics, and how students develop new mathematical understandings into their instructional planning. These insights, along with the ability to identify exceptionalities in students, enable teachers to adapt their practice.

Standard IV

Knowledge of the Practice of Teaching

Accomplished mathematics teachers use their knowledge of pedagogy along with their knowledge of mathematics and student learning to inform curricular decisions; select, design, and develop instructional strategies and assessment plans; and choose materials and resources for mathematics instruction. Accomplished mathematics teachers stimulate and facilitate student learning by using a wide range of practices.

Accomplished teachers recognize that, while much of teaching is an art, there is a body of research that offers insight into teaching practices that can accelerate student learning in multiple ways. Teachers recognize that teaching affects student performance and is often the major effect on performance.

The repertoire of an accomplished teacher includes teaching strategies and best practices that engage students in exploring, discovering, and using mathematical ideas. Teachers design their lessons with well-defined mathematical goals in mind. Keeping in mind the prior mathematics experiences of students and the preparation necessary for future mathematical courses, teachers identify and make explicit the learning goals for each lesson. They are able to pace and sequence their objectives in order to meet their goals for students' learning. They articulate the objectives clearly and select instructional techniques and activities that enable students to meet them. Teachers know students, understand the concepts and procedures of mathematics, and know that various subject areas can enhance one another. They are adept at connecting mathematics to other disciplines. For example, mathematics teachers might help their students who are studying biology to see that the connections between how the amount of medicine one takes and how much is left in one's body are explained using exponential decay in mathematics. Or, teachers might apply the concept of the derivative to maximization of profit in economics. They know the curriculum standards and frameworks that connect mathematical ideas across grade levels. Teachers' choices are governed by their immediate and long-term instructional goals, the progress and interests of their students, the instructional opportunities that present themselves, and the particular dynamics of the teachers' classrooms.

Only by combining their knowledge of mathematics with what they know about students can accomplished teachers make well-crafted decisions as to what to

communicate and how to communicate mathematics to students. Teachers are versatile, expert communicators who can adapt both their style of presentation of the mathematics and their choices of what and how they teach.

Accomplished teachers take into account the individual needs and developmental levels of students when designing instruction. Teachers know how to observe and listen to students' interactions in order to blend instructional goals for the lesson with the learning goals of students. Teachers constantly reflect on the interaction between the purpose of the lesson and the requirements of the student to effectively satisfy both. Teachers use these observations to differentiate their instruction by providing different entry points to the same assignment with different skill sets. (See [Standard III—Knowledge of Students](#).)

Accomplished teachers motivate students based on their needs, interests, and intrinsic motivation. Teachers know the challenges and difficulties that students commonly encounter in learning particular mathematical topics, anticipate underlying misconceptions, and incorporate this prior knowledge in planning for instruction. For example, teachers understand the complexities of early number concepts and can trace conceptual difficulties of young adolescents back to misconceptions of elementary mathematics and make appropriate instructional decisions and accommodations to correct these errors. Mathematics teachers analyze student work to identify current mathematical understandings and use that information to drive instruction. For instance, mathematics teachers know a common misconception in the learning of algebra is that students often interpret the equal sign as an indicator that they should compute and find an answer, not as a statement of relationship that two things are the same. While preparing their unit on solving linear equations, teachers might use their knowledge of the misconception to plan their assessment of students' understanding of the meaning of equality.

Accomplished teachers may work actively within the school community to advance knowledge about the learning opportunities afforded by technology. Teachers help students learn about learning mathematics. The visual, computational, and interactive power of modern technology can be used to influence both the content and the methodology of student learning and assessment in mathematics. Teachers recognize opportunities afforded by technological tools—access to new ideas and new ways of representing and manipulating them—and effectively use the tools to deepen and enrich students' mathematical learning. Teachers encourage students to use technology to access information and communicate mathematically with others. When possible, teachers use appropriate technological tools to allow students to expand their mathematical tool kit. For instance, students might appreciate the symbolic notation if they accessed the history of its evolution easily on the Web. Teachers may select resources that simulate real situations in order to address problems that might be otherwise inaccessible. For example, in teaching experimental versus theoretical probability, teachers might use a calculator's or computer software program's random number generator to simulate large numbers of trials of flipping a coin. Teachers continually improve their own skills and fluency with technology and reexamine their teaching practices in light of what is possible.

Where access to technology is limited or nonexistent, accomplished teachers seek ways to acquire it. (See [Standard IX—Families and Communities](#).)

Accomplished teachers modify classroom plans and activities in response to student needs, interests, and unexpected opportunities for learning. Teachers demonstrate flexibility, insight, and responsiveness in dealing with the flow of the classroom. They recognize and respond to the mathematical potential of student questions and comments and pursue ideas of interest that emerge during classroom discussion. Teachers also help students reflect on and extend their learning, and they expect and help them to take responsibility for their learning. For example, teachers might provide opportunities for students to write in journals about what they have learned and what they need to focus on as a unit progresses. Because teachers understand different types of representational models, appropriate instruction and computational tools, and the strengths and weaknesses of each, teachers can select those best suited for different students and for different teaching situations.

Accomplished teachers know that classroom interactions can develop a life of their own, that no plan should be followed simply for its own sake, and that teachers must adapt their plans when appropriate. Teachers are prepared to adjust instruction—either because unforeseen difficulties suggest that a path they had planned to take will not succeed, or because a classroom discussion points to a beneficial alternative. For example, in learning linear functions and the slope as the rate of change, students might ask about what happens when the rate of change is not constant. While not planned, the teacher might decide to introduce examples of nonlinear functions to give students opportunities to compare and contrast the characteristics of linear and nonlinear functions. Teachers are able to anticipate misunderstandings and provide instruction that will help as ideas unfold. Furthermore, they choose topics for discussion wisely, relying on their understanding of what is appropriate and important.

Accomplished teachers foster learning by choosing imaginative examples, problems, and situations designed to interest and motivate students, illuminate important ideas, and support continued growth of student understanding. Teachers also know the importance of well-structured, scaffolded sets of problems that can be used to increase student understanding. Teachers work with small groups of students, asking clarifying or leading questions when necessary. Teachers involve students in decisions about mathematical topics or ways to study those topics. Mathematics teachers provide students with opportunities to reflect on their learning, and teachers serve as catalysts in launching student investigations. For instance, a teacher might show the application of the quadratic formula to prepare students to write an explicit representation of Fibonacci numbers.

Accomplished teachers promote meaningful discourse through the well-conceived questions they pose and through the rich tasks they provide. They demonstrate their use of appropriate questioning strategies by knowing how, when, and why to question students about their understanding of mathematics and provide a safe arena in which students can counter the arguments of others. Teachers encourage

students to pursue learning on their own. Teachers also know that a number of studies support the tremendous potential that discourse-intensive instruction has on student learning. Teachers use techniques that encourage discussion, such as restating students' observations, having students repeat and listen to one another, asking students to contribute to the discussion, and using wait time both before and after students respond. During discourse, teachers are aware of their own intonations and adjust their communication styles to the needs of the students and the context of the discussion. Teachers understand and are able to demonstrate strategic methods to communicate in a specific manner as they share information with students.

Accomplished teachers recognize that to teach mathematical vocabulary they must use it in the context of the content as well as in the context of the learner. For example, to meet the needs of English language learners, students who are auditorily challenged, or students with attention deficits, teachers need to use carefully chosen nonverbal cues, gestures, or color-coded symbols or cues to illustrate mathematics lessons. For instance, a polynomial with like terms may be presented for students to combine the terms. As students choose terms that may be added to one other, the teacher might represent like terms with different colors and shapes to help students create a simplified expression.

Accomplished teachers value mathematics. They take joy in it. They appreciate how knowledge in mathematics is created. They are excited by the ideas they explore with students. Teachers communicate that joy to their students. Teachers use the power of mathematics to fascinate students. Teachers elicit mathematical excitement and provide students with opportunities to experience the intellectual satisfaction that comes from finding a solution to a problem or justifying a conjecture. Instead of simply telling students how to solve a problem, the teacher may scaffold activities to help students recognize and celebrate their ability to use their knowledge of mathematics to answer questions.

Accomplished teachers epitomize the character they want to instill in students. Teachers demonstrate curiosity, respect, patience, honesty, fairness, and commitment to their art. They focus on and support students in their aspirations for high performance in mathematics and life-long learning. Teachers create a safe climate conducive to student learning and advocate for students. Teachers must quickly address instances of cheating, plagiarism, bullying, and harassment. They are exemplars of integrity who are open and approachable to students and the community. Teachers also recognize the essential importance of providing high-level engagement, critical-thinking activities, and authentic challenges for students. Mathematics teachers engage in principled practice, balancing multiple demands and goals to ensure that all students have optimal opportunities to learn.

The Teaching of Mathematics

The ways a teacher makes decisions and implements plans in the classroom provide the most visible and, arguably, the most important demonstrations of accomplished practice. The next three standards describe the types of tasks teachers construct and select, the ways teachers facilitate classroom discourse, and the practices teachers use to assess and monitor learning. Accomplished mathematics teachers successfully perform these functions through the roles they assume, the organizational schemes they use, the decisions they make, and the ways they adjust their plans from moment to moment.

Standard V Learning Environment

Accomplished mathematics teachers create environments in which students are active learners, show willingness to take intellectual risks, develop self-confidence, and value mathematics. This environment fosters student learning of mathematics.

Accomplished teachers use their knowledge of how students learn to create a stimulating and productive environment in which students are empowered to do mathematics. Teachers foster a respectful, engaging, and cooperative atmosphere for learning. They help students learn about learning mathematics. From the beginning of the school year, teachers engage their students in creating a community of learners in which students value taking intellectual risks.

In such an environment of trust, students feel safe to communicate different points of view, to conduct open-ended explorations, to make mistakes, and to admit confusion or uncertainty in order to learn. For example, before classroom discussions, the teacher might articulate norms designed to establish trust. In a middle school classroom, the teacher might create these norms, whereas in a high school classroom, the students could help develop the norms. In these classrooms, students develop a strong work ethic and assume ownership and responsibility for their learning, so that students along the learning spectrum benefit. When one student develops an understanding of a concept, he or she uses this new knowledge to help other students understand that concept. Creating and maintaining such a learning

environment requires skill and planning, a variety of instructional methods, flexibility, good judgment, and discretion.

Accomplished teachers consider the mathematical understandings, needs, interests, and working styles of their students and the mathematics they are studying. Teachers recognize the multiplicity of challenges and continually seek ways to help students thrive. Teachers create a culture in which each student learns to value mathematics and experiences success in doing mathematics. Teachers lead by example and convey to students the delight that comes with the command of a mathematical tool or principle. Teachers help students develop the ability to work both independently and collaboratively on mathematics, recognizing that the long-range goal of a teacher is to help students become self-directed and capable of learning on their own.

An accomplished teacher constantly reflects on ways to improve the learning environment. Teachers know students well and create productive learning environments through the use of classroom management strategies. Teachers know what motivates, interests, and inspires students, as well as what frustrates them. Mathematics teachers can establish classroom routines and policies that allow students to focus on learning. For example, teachers establish protocols during cooperative learning activities that revolve around encouraging discussion about mathematics or whole-class discussion norms that help student-led discussions focus on evidence and support discourse. Regardless of how mathematically rich the learning environment is, challenges still exist in helping students to learn because of the many aspects of students' lives that they bring to the classroom. (See [Standard III—Knowledge of Students](#).)

The look of the classroom of an accomplished teacher also tells something about the role mathematics plays in students' everyday lives in school. Student work, mathematical models, and manipulative materials likely to pique students' interests and encourage their involvement in mathematics are evident in these teachers' classrooms. The physical arrangement of space and furniture, along with teachers' use of space is purposeful and designed to foster mathematical discourse and support both collaborative and independent student work. Teachers working in circumstances in which they have little or no control over their physical setting make whatever accommodations they can to contribute to students' learning in and thinking about mathematics.

In addition to creating a mathematically rich learning environment, teachers, when possible, create a technology-rich classroom. For instance, there are many Web sites and applets that are interactive and that illustrate mathematics topics such as transformations, isometric views of 3-D shapes, tangent lines, limits, and areas under a curve. With the prevalence of technology in students' worlds outside the classroom, teachers strive to use technology geared toward engaging students in the learning of mathematics.

Standard VI

Ways of Thinking Mathematically

Accomplished mathematics teachers develop their own and their students' abilities to reason and think mathematically—to investigate and explore patterns, to discover structures and establish mathematical relationships, to formulate and solve problems, to justify and communicate conclusions, and to question and extend those conclusions.

Accomplished teachers bring insight about mathematics to students, including new perspectives on standard problems and unexpected connections among different fields. Teachers are proficient not only in solving problems, but also in making students aware of different strategies for solving a problem, as well as the relative merits of each. They have the confidence to help students face uncertainties and make strategic decisions in exploring unknown territories.

Accomplished teachers know that mathematics is a discipline of concepts, principles, procedures, and reasoning processes. Thinking mathematically includes representing, modeling, proving, experimenting, conjecturing, classifying, visualizing, and computing. In the classrooms of accomplished teachers, students are engaged in identifying patterns; solving problems; reasoning; forming and testing conjectures, justification and proof; and communicating results. Students search for connections and solve problems, while reflecting on both the mathematics and their own thought processes.

Accomplished teachers recognize that important general concepts and reasoning methods undergird the development of mathematical power. They model mathematical reasoning as they work with students and encourage students to question processes and challenge the validity of particular approaches. Students make conjectures and justify or refute them, formulate convincing arguments, and draw logical conclusions. Sound reasoning—not an edict from the teacher—is the arbiter of mathematical correctness. In short, students become mathematically empowered as they learn to think, reason, and communicate mathematically.

Accomplished teachers recognize that mastering mathematical facts and procedures is only a part of what it means to learn mathematics. Teachers must understand and consistently employ mathematical thinking processes in their classroom practice that include the following:

- Reasoning correctly using processes such as classification, representation, deduction and induction;
- Using heuristics as a key strategy to guide solutions to mathematical problems, such as testing extreme cases, conducting an organized search of specific examples, and using different problem representations;
- Modeling mathematical relations in problem situations—describing important relationships through symbolic expressions and other representations;
- Connecting ideas, concepts, and representations across the strands of mathematics.

Teachers also know the importance of developing students' understanding of and disposition to do mathematics. Teachers realize that teaching students to “think mathematically” means helping them develop a mathematical point of view in which they consistently use the mathematical thinking processes listed above; recognize situations in which mathematical reasoning might be useful; and have the ability, skill, and confidence to think through a mathematical situation. For example, the teacher might stress the idea that knowing how to calculate the area of a triangle is all that is needed for knowing how to calculate the area of all polygons. To encourage mathematical thinking, teachers provide settings that allow students to test mathematical ideas, patterns, and conjectures; discover principles; synthesize evidence; and apply their growing knowledge to a variety of problems. Teachers know and use the overarching themes of mathematics that help students understand and appreciate the powerful relationships between mathematical ideas and problems—as in making students aware of the relationship between diverse fields, such as algebra and geometry or geometry and probability. For instance, teachers might discuss how similar triangles are basic to the understanding of linear functions and how the concept of area makes tangible the concept of probability.

Accomplished teachers know multiple ways to represent mathematical concepts, and they organize tasks so that students will learn that a single problem may have many representations. Teachers encourage students to distinguish between these representations and to select a compelling and efficient representation for a given problem or situation. Teachers know the importance of developing mathematical concepts concretely, so they are knowledgeable about the use of a variety of representations that support their instructional goals. For instance, teachers might use a dynamic geometry software package to help students develop definitions for and characteristics of plane figures using a graphic organizer. Teachers know and communicate that representations are often needed to form abstractions initially, and they allow students to think mathematically about abstract concepts. Although not every teacher will use the same materials for the same purposes, mathematics teachers are adept at using concrete materials that help students develop various mathematical understandings. For example, students might use concrete materials or manipulatives to develop a rule for binary operations with integers. Teachers help students make connections between their manipulative experiences and the mathematical ideas they need to grasp.

Accomplished teachers provide students with problems and applications that will allow them to explore new mathematical content, reflect on the problem-solving process, extend and refine their thinking, make generalizations about the procedures they have used, and link those generalizations with what they have learned previously. Teachers provide many rich opportunities for students to apply mathematics to interesting problems. In so doing, teachers point out the interrelated domains of mathematics. They not only choose tasks related to everyday life—including the sciences, economics, politics, or business—but they also choose tasks that will extend understanding within mathematics. Their choice of problem contexts reflects the breadth of mathematics and its applications.

Accomplished teachers deliberately structure opportunities for students to use and develop appropriate mathematical discourse as they reason and solve problems. These teachers give students opportunities to talk with one another, work together in solving problems, and use both written and oral discourse to describe and discuss their mathematical thinking and understanding. As students talk and write about mathematics—as they explain their thinking—they deepen their mathematical understanding in powerful ways that can enhance their ability to use the strategies and thought processes gained through the study of mathematics to deal with life issues. For example, when students in geometry are given six toothpicks and asked to construct with them four equilateral triangles, they usually conclude after multiple attempts that it is impossible. When probed to explain their thinking, they focus on the mathematics they know and usually conclude that this cannot be done on the plane, which is true. Then they realize that they were not asked to do it on the plane and immediately come up with the solution: the regular tetrahedron. From this exercise, they learn to think through the analysis of a problem or situation in any discipline. Mathematics teachers encourage students to confront and challenge ideas and to question peers as they discuss mathematical ideas, develop mathematical understanding, and solve mathematical problems. Teachers use probing and supportive questions to advance students' thinking. Teachers monitor what students do, using mathematical communication regularly to help students build understanding. For example, teachers might use the graphing of rational functions to help students understand the concept of an asymptote.

Accomplished teachers are well aware that students' mathematical achievement is still mainly dependent on their ability to conceptualize and analyze mathematics, to discover structures and establish relationships, to explore justification and proof, and to formulate and solve problems. For this reason, teachers know that they must develop students' mental acuity as well as pencil-and-paper skills. In addition, the latest technology has provided effective tools to help develop students' reasoning, mathematical thinking, and discourse. Accomplished teachers are able to use applications such as graphing technology, interactive geometry software, and computer algebra systems to support student inquiry, conjecture, and proof. For instance, when using geometric software, students can explore the properties of a parallelogram and conjecture about the consecutive angles being supplementary. This could lead students to "see" the proof as to why this is true. Teachers also know how to use calculators as exploratory tools to develop students' understanding of mathematics.

Standard VII Assessment

Accomplished mathematics teachers integrate a range of assessment methods into their instruction to promote the learning of all students by designing, selecting, and ethically employing assessments that align with educational goals. They provide opportunities for students to reflect on their strengths and weaknesses in order to revise, support, and extend their individual performance.

Accomplished teachers continuously gather available achievement data about their students in order to adjust their instruction. Teachers use formal and informal assessments to provide a holistic view of a student's mastery or need for further instruction. Teachers assess students' understanding of mathematical concepts and procedures, their fluency at operations, and their ability to effectively use resources. Teachers also assess the students' clarity of communication, their ability to innovate and apply multiple strategies to problems, and their ability to deal with topics they are learning. For example, teachers might regularly provide opportunities for students to write a reflection or justification. Based on what the students write, teachers can address misconceptions, lack of clarity or completeness, and level of understanding on any given topic.

Accomplished teachers view ongoing assessment as an integral part of their instruction, benefitting both the teacher and the student. Teachers—guided by well-defined instructional goals of the current class and students' future mathematical classes—design appropriate assessments and activities to monitor the progress of the class as a whole, as well as the work of individual students. Mathematics teachers skillfully incorporate opportunities for assessing students' progress into daily instruction. Using levels and types of questioning, teachers assess students' abilities to comprehend, apply, and synthesize. Teachers use a variety of strategies to explore and expand their students' thinking and a variety of methods to check for students' understanding, and teachers use this information to shape their teaching. Throughout the assessment process, teachers monitor the skills that students may be missing and find ways to design or modify instruction to minimize gaps in learning.

Accomplished teachers help students develop the ability to self-monitor and evaluate personal progress. For students to become self-reliant learners, teachers know that students must assume increasing responsibility for their own learning at an appropriate developmental level. Teachers encourage students to set high goals,

both for the current class and in preparation for future mathematics courses, and teachers show students how to evaluate their progress toward those goals. Teachers engage their students in learning from other students' work. In this way, students gain a fresh perspective on their own work, as well as opportunities to reflect on and evaluate their progress and to revise, support, and extend their learning. Teachers set high expectations and ensure that those expectations are clear and understood by all their students. Mathematics teachers establish clear criteria for success. Students know what to expect when they are assessed and regularly receive opportunities for open-ended reflection about a task, a unit, an experience, or their learning in general. For example, to keep track of how well students convey their mathematical ideas using appropriately precise terms and well-organized reasoning, teachers may keep a discourse log that focuses on clarity of communication during students' presentations of their work.

Accomplished teachers use formative assessment results to modify their lessons and learning opportunities and activities. Accomplished teachers recognize that the form of assessment is not nearly as important as how well it relates to classroom instruction. Teachers use assessment strategies to identify student strengths and areas for improvement, and they provide timely and constructive feedback. They use assessment to communicate and demonstrate that students are learning mathematics. The students of accomplished teachers come to value assessment as an important means of evaluating their own progress and may not distinguish assessment from instruction. For example, teachers may incorporate into lessons one or two problems that often elicit particular misconceptions about the topic of instruction and observe students' work on these problems to assess whether students may have developed the misconception.

Besides assessing student learning using teacher-designed assessments, accomplished teachers are keenly aware of any assessment that originates outside the teacher's classroom that plays an important part in students' educational experiences and know the purposes and content of these assessments. In such external testing situations, mathematics teachers do not abandon their instructional goals; rather, they incorporate the pertinent mathematics objectives of the test into their overall instructional plan. For instance, instead of self-contained test preparation for state assessments, teachers may plan their units and lessons to incorporate objectives at appropriate points in the development of concepts. Teachers may also incorporate some items in classroom assessments that are similar in format to those of the state assessment. They evaluate their own curricular decisions in light of the content of these tests, ensuring that their students are well prepared for those examinations that will be important to their future goals. Teachers read and consider the curricular implications of data from local, state, national, and international comparisons. Teachers recognize the importance and role of data, especially longitudinal data, to inform instruction and curricular choices.

Teachers have an ethical obligation to clearly communicate what the learning goals and grading expectations are and to accurately report how well students have achieved those goals and met those expectations.

Professional Development and Outreach

Accomplished mathematics teachers, according to the Five Core Propositions, think systematically about their practice and learn from their experiences. As professionals, they reflect on their teaching and periodically adjust their course content and instruction to respond to new ideas and the rate of progress they observe in their students.

Teachers must show persistence and creativity in their efforts to involve families in meaningful ways. Today, more than ever, teachers must reach beyond their classrooms. They must participate in broader learning communities and reach out to the community at large. At the school, district, state, and national levels, teacher involvement is a key component in the effort to improve educational opportunities and learning for all students. The definition of who and what a teacher is continues to evolve toward an emerging picture of a talented and competent professional who is charged with the most important function in society—educating tomorrow’s adults. Important aspects of this professionalism are reflected in the final cluster of standards.

Standard VIII Reflection and Growth

To improve practice, accomplished mathematics teachers regularly reflect on what they teach, how they teach, and how their teaching impacts student learning. They keep abreast of changes and learn new mathematics and mathematical pedagogy, continually improving their knowledge and practice.

For accomplished mathematics teachers, every class and every course provide the opportunity to reflect and improve on an ongoing basis. Teachers modify their teaching practices based on their experiences and on the continuous process of self-examination, using a variety of strategies to collect data about their own teaching. They also gather information from students about the effectiveness of their teaching. For example, if a student is having difficulty with a particular aspect of algebra, a teacher might reexamine instructional methods and choices in order to help the student better understand the concept. This information may come from

formative and summative assessments, classroom observation, homework, student conferences, or student surveys and forms the basis for ongoing improvement in teachers' knowledge and practice.

The body of mathematics and the pedagogical bases for teaching mathematics are dynamic. The knowledge base of mathematics, mathematical theories and applications, and the evolution of technology, such as fractals, recursion, and computer Web design, present opportunities that change the way people engage in mathematical reasoning.

Accomplished teachers regularly engage in solving problems in which solutions are not obvious. They do this to increase their mathematical knowledge and to mimic the experiences of their students. Through this activity, teachers gain insight into how difficult it can be to persevere in a problem-solving situation. For example, a teacher might take a higher-level mathematics course or solve problems from mathematics textbooks beyond the level they teach, from science textbooks, or from contests.

Accomplished teachers keep abreast of strategies for improving mathematics learning and teaching through such activities as reading professional journals, dialoguing with peers, attending meetings and conferences, and participating in professional organizations. They continually participate in professional development and regularly refine their practices in light of professional knowledge and experience, while keeping in mind the intended effect on students when implementing any new knowledge such as research on the structures and development of the adolescent brain in relation to student decision-making. Whether extending their formal education or engaging in a self-directed plan, teachers actively pursue ways of enhancing their own knowledge and skills. They identify areas for self-improvement and seek strategies for reaching their educational and instructional goals.

Accomplished teachers work actively with colleagues to use their knowledge and understanding of mathematics and students to enhance student learning. Realizing the positive effect that shared experiences can bring to their own teaching practices, teachers may participate in lesson study or form professional learning communities. The idea of a professional learning community may include meeting with colleagues from within the content area, meeting with an interdisciplinary group of colleagues, or becoming an active member of an educational organization. These meetings may be face-to-face or via technology, informal or formal, regular or as needed. Teachers take from these discussions valuable information that will enhance their practice, while recognizing the cyclical nature of teaching and remaining open to examining their practice as ongoing professional development. At the core of reflection and professional development is the impact it will have on student learning.

Although accomplished teachers are alert to new developments in mathematics, technology, and mathematics teaching, they do not adopt blindly each new pedagogical method that becomes popular. Rather, they respect both new and time-tested thinking about mathematics teaching. For example, teachers understand that, although there is still a need for seeing geometry as a mathematical system with

definitions and structure, students also understand geometry from the viewpoint of a dynamic system where the representations can be translated and transformed in ways that illustrate concepts in powerful ways. Teachers filter ideas through the lens of their own experiences and the particular needs of their students, incorporating new ideas as they fit those needs.

Standard IX

Families and Communities

Accomplished mathematics teachers collaborate with families and communities to support student engagement in learning mathematics. They help various communities, within and outside the school building, understand the role of mathematics and mathematics instruction in today's world.

Accomplished teachers recognize the complexity of the home-school-student relationship, and they view families as partners who can encourage students to appreciate and value mathematics. Teachers respect the role of family members as students' first teachers and as supporters of students' growth and development. Teachers look to families for information about students' strengths, interests, dispositions, habits, and home life. Teachers actively seek to learn about the various cultures from which their students and their families come, respecting their values and recognizing that cultural differences may affect instruction.

Realizing that family members may or may not have had positive experiences in their own mathematical education, accomplished teachers create a non-threatening environment for family collaboration. Teachers find ways to communicate the value of mathematics, as well as its potential to open doors to students' futures. For example, the teacher may use newsletters, e-mail, a personal Web site, or family nights to illuminate the utility of mathematics. Connecting the value of mathematics to real world opportunities and challenges builds a rapport between teachers and family members who work together to ensure positive and productive mathematical learning experiences. Teachers work to build two-way communication with families and encourage family members to visit or communicate with the teacher whenever possible, with a focus on creating a positive learning environment for students.

Using information concerning the practical value of mathematics, accomplished teachers enter into conversations about the content and practice within the classroom and school. They share current research that informs their pedagogical decisions, such as cooperative groups and patterns of discourse. They communicate with families the content of the curriculum and invite family members to learn about that content in a non-threatening manner. For instance, a teacher may host a dessert exchange where family members learn more about what students are studying and doing in mathematics. To create an instructional collaboration, teachers find ways to engage the family in the mathematics that the student is learning.

When discussing students' education, accomplished teachers focus their discussions on both the positive and challenging aspects of students' knowledge and patterns of engagement. Recognizing that the home community plays an important role in the success of the students, teachers are sensitive to working with families.

In addition to the home community, accomplished teachers recognize the importance of the school community as it relates directly to student learning. Just as teachers build a collaborative environment between the home and school, they also build a collaborative environment between other educators within the school. Teachers work effectively with other school professionals to make students a part of a community with a coherent ethos. Accomplished teachers may work actively within the school community to advance knowledge about the learning opportunities afforded by technology. They help other teachers integrate knowledge across the disciplines in areas of applications, connections, and extensions. For example, they may work with language arts teachers to share ideas on communication skills and writing in mathematics, with social studies teachers on incorporating problem solving or data analysis, or with visual arts teachers on spatial relationships. In addition to building an interdisciplinary connection, teachers become ambassadors for mathematics. For example, they may share ideas for fair apportionment with the social science teachers, ideas for tessellating figures with art teachers, and ideas for technical mathematics writing with English teachers. They take on the responsibility of informing the school community, counselors, principals, and other teachers about the value of mathematics and the doors and opportunities mathematics opens for students. Recognizing that school professionals, much like some family members, may feel that they struggle with mathematics, mathematics teachers build awareness in their school community of the negative impact such language can have on a student or family member. Mathematics teachers work with counselors to promote the value of mathematics and the possibilities of furthering students' mathematical education or career.

Standard X

Professional Community

Accomplished mathematics teachers continually collaborate with other teachers and education professionals to strengthen the school's mathematics program, promote program quality and continuity across grade levels and courses, and improve knowledge and practice in the field of mathematics education.

Accomplished teachers are members of a professional mathematical community and work in a collaborative environment. Seeing themselves as partners with other teachers, they are dedicated to improving the profession. They care about the quality of teaching in their schools, and, to this end, their collaboration with colleagues is continuous and explicit. They recognize that collaborating in a professional learning community contributes to their own professional growth, as well as to the growth of their peers, for the benefit of student learning. Teachers promote the ideal that working collaboratively increases knowledge, reflection, and quality of practice and benefits the instructional program. Teachers seek to make their teaching an open community activity. They realize that while it may not be feasible to have a truly open classroom where colleagues may observe lessons followed by a collegial discussion, it may be possible to have an open classroom by sharing instructional anecdotes, sample products, or videotaped lessons. Teachers observe and study other teachers' practices, engage colleagues in dialogue about professional issues, and may serve as mentors to new teachers as well as coaches to experienced colleagues. Decision making becomes a collaborative process rather than an isolated process. Students become "our" students rather than "my" students in an effort to utilize all available resources. Teachers collaborate with parents, colleagues, and other members of the community in the education of early adolescents through young adults.

Because accomplished teachers are dedicated to their students and to their learning of mathematics, the focus of teachers' contributions to the larger learning community often revolves around curricular or assessment issues. These may include periodically reviewing district and school curricula, textbooks, external and internal testing instruments, and practices in their school or district to help ensure that materials and guidelines are thoughtfully organized; consistent with the profession's views of best practices; tailored to the students and the community they serve; and aligned with the goals of the mathematical community, school, and classroom.

As an extension of their local responsibilities, accomplished teachers engage in a wide range of professional activities. They contribute productively to the advancement of their field through active participation in professional organizations at

the local, state, regional, and national levels. They work to support the improvement of mathematics education and the professional growth of mathematics teachers at all levels including pre-kindergarten through 16 as well as preservice and in-service teachers. For example, teachers might partake in action research or partner with a university to participate in research projects. Such commitment is central to teachers' dedication to the quality of their practice and to the advancement of mathematics education.

Standards Committees

Standards Committee, Third Edition

Deborah Kiger Bliss

Mathematics Coordinator
Virginia Department of Education
Richmond, VA

William S. Bush—Chair

Professor of Mathematics Education
University of Louisville
Louisville, KY

Philip Dituri

Mathematics Teacher
New Design High School
New York, NY

Gail Englert, NBCT

Mathematics Teacher
Ruffner Academy
Norfolk, VA

Melonie Gordon, NBCT

Curriculum Interventionist
Creek Bridge High School
Marion, SC

Karen D. King

Associate Professor of Mathematics Education
New York University
New York, NY

Carlene Kirkpatrick, NBCT

Mathematics Teacher
North Oldham High School
Goshen, KY

Kathleen Magaña, NBCT

NBCT Graduate Programs Ambassador
National University
San Jose, CA

Fabio Milner

Director, First Year Mathematics & Professor of
Applied Mathematics
Arizona State University
Tempe, AZ

Richard Seitz, NBCT

Mathematics Teacher
Helena High School
Helena, MT

Michelle Sterling-Rodriguez, NBCT—Chair

Field Specialist for Mathematically Connected
Communities
New Mexico State University
Las Cruces, NM

Donna Young¹

Mathematics Teacher
Kent Island High School
Queen Anne's County, MD

Hung-Hsi Wu

Professor of Mathematics
University of California at Berkeley
Berkeley, CA

Gwendolyn Zimmermann

Director of Mathematics
Adlai E. Stevenson High School
Lincolnshire, IL

¹ Ms. Young achieved National Board Certification in Adolescence and Young Adulthood/Mathematics in 2009.

Standards Committee, Middle Childhood through Early Adolescence/Mathematics Standards, First Edition

Joan E. Carlson

Cindy Chapman

Joseph R. Georgeson

Jerilyn R. Grignon

Jeremy Kilpatrick

Leslie G. Mancuso—Chair

Katherine K. Merseth

Perry Montoya

Sallie Morse

Lori Murakami

Cynthia H. Petti

Christine D. Rosen

Gladys N. Sanders—Vice Chair

Edward A. Silver

Uri Treisman

Standards Committees, Adolescence and Young Adulthood/Mathematics Standards

First Edition

Mary Jo Aiken

Lida K. Barrett

Gail Burrill—Chair

John Dossey—Vice Chair

James T. Fey

Maximo Gurule

Charles L. Hamberg

Roberta K. Koss

Donald Kreider

Alan H. Schoenfeld

Walter G. Secada

Susan Shumate

Joyce A. R. Weeks

Second Edition

Geri Anderson-Nielsen

Thomas Auchterlonie, Jr.

Cliff Barrineau—Vice Chair

Edwin Dickey

Susan K. Eddins, NBCT

Pam Giles

E. Paul Goldenberg

Leslie Sears Gordon

Katherine A. Granas, NBCT

Charles L. Hamberg

Roberta Koss

Carol Malloy—Chair

Susan Shumate

Lyle R. Sparrowgrove, Jr.

Nicole Sterling

Linda Walker

Hung-Hsi Wu

Acknowledgments

Mathematics Standards (formerly *Middle Childhood through Early Adolescence/Mathematics Standards* and *Adolescence and Young Adulthood/Mathematics Standards, Second Edition*) derives its power to describe accomplished teaching from an amazing degree of collaboration and consensus among educators from the field. Through the expertise and input of four standards committees; numerous reviews by the board of directors; and four periods of public comment by educators, policymakers, parents, and the like, as well as through the intense study of candidates for National Board Certification who have immersed themselves in the earlier editions, these standards emerge as a living testament to what accomplished teachers should know and be able to do. *Mathematics Standards* represents the best thinking by teachers and for teachers about advanced teaching practice in the field.

The National Board for Professional Teaching Standards (NBPTS) is deeply grateful to all those who contributed their time, wisdom, and professional vision to *Mathematics Standards*. Any field grows, shifts, and evolves over time. Standards, too, must remain dynamic and therefore are subject to revision. In 2008, NBPTS convened a Mathematics Standards Committee. This committee was charged with achieving both continuity and change, using earlier editions of the standards as the foundation for its work but modifying the standards to reflect best practices of the early 21st century. The Mathematics Standards Committee exemplified the collegiality, expertise, and dedication to the improvement of student learning that are hallmarks of accomplished teachers. Special thanks go to committee co-chairs, Michelle Sterling-Rodriguez, NBCT, and William Bush for their invaluable leadership in making this edition a reality.

A debt of gratitude is owed to the original committees, which debated, reflected, and articulated the multiple facets of accomplished teaching in mathematics to advance the field and to provide a rigorous and sound basis for national certification of teachers. In particular, the National Board appreciates the leadership of chairs and vice chairs of previous committees, Leslie Mancuso, Gladys Sanders, Gail Burrill, John Dossey, Carol Malloy, and Cliff Barrineau, who skillfully led the effort to weave the National Board's Five Core Propositions into field-specific standards of teaching excellence.

The work of the Mathematics Standards Committee was guided by the NBPTS Board of Directors. The National Board Certification Council was instrumental in selecting the standards committee, reviewing the current edition of the standards, and recommending adoption of the standards to the full board of directors. Stakeholders from disciplinary and policy organizations, teacher associations, and higher education provided insight into the current status of the field and recommended members for the committee. Writer Kim Worth, NBCT, and staff members Joan Auchter, Edward Clifton, Mary Lease, NBCT, and Emma Parkerson supported the committee in their task.

In presenting these standards for accomplished mathematics teachers, NBPTS recognizes that this publication would not have evolved without the considerable contributions of many unnamed institutions and individuals, including the hundreds of people who responded to public comment. On behalf of NBPTS, we extend our thanks to all of them.

NATIONAL BOARD

for Professional Teaching Standards®



Component I

Early Adolescence/Mathematics

Component 1: Content Knowledge

SAMPLE ITEMS AND SCORING RUBRICS

NATIONAL BOARD
for Professional Teaching Standards®

Contents

Overview	1
Component 1: Content Knowledge	1
EA/Mathematics Component 1 Computer-Based Assessment.....	1
Inside This Document.....	3
Sample Selected Response Items and Answer Key for EA/Mathematics Component 1	4
Sample Selected Response Items	4
Answer Key to Sample Selected Response Items	8
Sample Constructed Response Exercises and Scoring Rubrics for EA/Mathematics Component 1	9
Sample Exercise 1 and Scoring Rubric	10
Sample Exercise 2 and Scoring Rubric	15
Sample Exercise 3 and Scoring Rubric	20
Calculator Information for EA/Mathematics Component 1	24

Overview

This document provides information about the Early Adolescence/Mathematics (EA/Mathematics) Component 1 computer-based assessment. It includes sample assessment center selected response items and answer key, constructed response exercises, and the scoring rubric used to assess each constructed response exercise.

Component 1: Content Knowledge

Component 1: Content Knowledge is a computer-based assessment requiring candidates to demonstrate knowledge of and pedagogical practices for their teaching content area. Candidates must demonstrate knowledge of developmentally appropriate content, which is necessary for teaching across the full age range and ability level of the chosen certificate area.

EA/Mathematics Component 1 Computer-Based Assessment

In the EA/Mathematics Component 1 computer-based assessment, content knowledge is assessed through the completion of approximately 45 selected response items and three constructed response exercises.

EA/Mathematics Standards Measured by Selected Response Items

The EA/Mathematics selected response items focus on the following Standards:

Standards Content (Standard II)	Approximate Percentage of Selected Response Item Section*
<p>Contexts for Mathematics</p> <ul style="list-style-type: none"> • Historical Development of Mathematical Ideas • Mathematical Applications in Fields Related to Mathematics • Precise Communication of Mathematical Ideas 	15%
<p>Problem Solving and Number Sense</p> <ul style="list-style-type: none"> • Numbers and Operations • Algebra and Functions • Geometry 	45%
<p>Modeling and Analysis</p> <ul style="list-style-type: none"> • Trigonometry • Discrete Mathematics • Data Analysis and Statistics • Calculus 	40%

* These percentages are an approximation only.

For the complete EA/Mathematics Standards, refer to www.nbpts.org/national-board-certification/candidate-center/.

EA/Mathematics Constructed Response Exercises

The EA/Mathematics constructed response exercises assess the following:

- **Exercise 1: Algebra and Functions**
In this exercise, you will use your knowledge of algebra and functions to model problem situations, employ algebraic techniques and procedures, and explain a functional relationship depicted in a given situation. You will be asked to respond to three prompts.
- **Exercise 2: Geometry**
In this exercise, you will use your knowledge of geometry to perform the transformations of dilation, reflection, rotation, and translation on a two-dimensional figure and explain how the two figures are congruent and/or similar. In addition, you will explain the volume formula of a three-dimensional figure and how it relates to the volume of a figure with the same type of base. You will be asked to respond to two prompts.
- **Exercise 3: Data Analysis and Statistics**
In this exercise, you will use your knowledge of data analysis to provide various graphical representations and interpretations of a given set of data. You will be asked to respond to one prompt.

Each constructed response exercise will be assessed using a scoring rubric. Each EA/Mathematics Component 1 scoring rubric is derived from the Mathematics Standards for teachers of students ages 11–18+ and defines the levels of accomplished teaching that you must demonstrate.

You should read the rubric while preparing to take Component 1 to understand how the rubric guides assessors in evaluating your responses to the constructed response exercises.

Inside This Document

This document includes the following three sections: "[Sample Selected Response Items and Answer Key for EA/Mathematics Component 1](#)," "[Sample Constructed Response Exercises and Scoring Rubrics for EA/Mathematics Component 1](#)," and "[Calculator Information for EA/Mathematics Component 1](#)."

Selected Response Section

This section includes the following:

- five sample selected response items
- answer key

Constructed Response Section

This section includes the following:

- three sample constructed response exercises
- associated scoring rubric for each exercise

Calculator Information

This section includes information about the online calculator provided as part of the assessment.

Other Important Information

Refer to the National Board website for the following:

- For information about scheduling and taking your test at the assessment center, please refer to the *Assessment Center Policy and Guidelines*.
- For a link to an online tutorial, please refer to the *Assessment Center Testing* page.
- For more information about how the assessment is scored, please refer to the *Scoring Guide*.

Sample Selected Response Items and Answer Key for EA/Mathematics Component 1

This section includes

- **sample selected response items** to help you become familiar with the content and format of the items on an actual computer-based assessment.

Although this section illustrates some of the types of items that appear on the assessment, note that these sample items do not necessarily define the content or difficulty of an entire actual assessment.

Please note that the selected response items cover the *entire* age range of the certificate. Be aware that you are expected to demonstrate knowledge of developmentally appropriate content across the full range of your certificate.

- an **answer key**.

Sample Selected Response Items

Standard II. Knowledge of Mathematics (Contexts for Mathematics)

1. Eudoxus of Cnidus (c. 395–342 BCE) used geometry to avoid irrational numbers by introducing a theory of proportion that did not involve using actual numbers. Instead, he inspected geometrical objects by comparing their relationship to each other while ignoring their precise measure. This method of mathematical inspection is most closely related to:
 - A. algebraic reasoning.
 - B. combinatorial design.
 - C. inductive evaluation.
 - D. logical construction.

Standard II. Knowledge of Mathematics (Problem Solving and Number Sense)

2. Proof by induction requires that if a property P satisfies a basic step for $n = 1$, and if the property is also true for $P(n)$, then $P(n + 1)$ is true. Therefore, the property is true for all values of n . The steps shown below prove by induction that the sum of the consecutive integers 1 through k is given by the formula $S_k = \frac{k(k+1)}{2}$.

$$S_k = \frac{k(k+1)}{2}$$

$$S_{k+1} = S_k + (k+1)$$

$$S_{k+1} = \frac{k(k+1)}{2} + (k+1)$$

$$S_{k+1} = (k+1)\left(\frac{k}{2} + 1\right)$$

Which equation identifies the final step needed to complete the proof?

A. $S_{k+1} = \frac{(k+1)(k+2)}{2}$

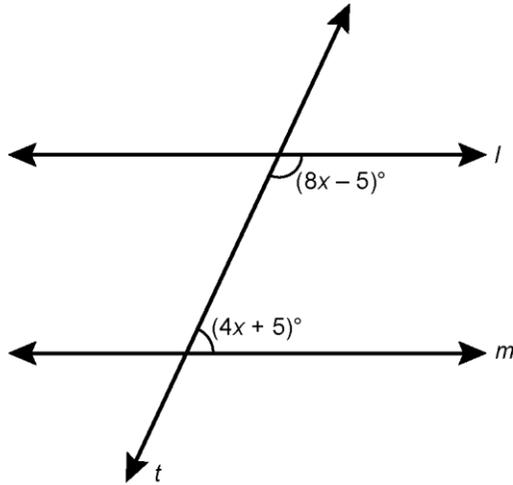
B. $S_{k+1} = \frac{(k+1)(k+1)}{2}$

C. $S_{k+1} = (k+1)(k+2)$

D. $S_{k+1} = (k+1)(k+1)$

Standard II. Knowledge of Mathematics (Problem Solving and Number Sense)

3. Lines l and m are intersected by a transversal, t , as shown in the diagram below.



What must be the value of x if l is parallel to m ?

- A. 2.5
 - B. 7.5
 - C. 15
 - D. 30
4. On a sunny day, a building projects a shadow that is 56 feet long. The angle of elevation is 65° to the top of the building. Which measurement, in feet, is closest to the height of the building?

- A. 24
- B. 51
- C. 96
- D. 120

Standard II. Knowledge of Mathematics (Modeling and Analysis)

5. In which of the following sets are all the angles coterminal?

A. $\left\{ \frac{-13\pi}{3}, \frac{-7\pi}{3}, \frac{7\pi}{3}, \frac{13\pi}{3} \right\}$

B. $\left\{ \frac{-11\pi}{3}, \frac{-5\pi}{3}, \frac{7\pi}{3}, \frac{13\pi}{3} \right\}$

C. $\left\{ \frac{-2\pi}{3}, \frac{-\pi}{3}, \frac{\pi}{3}, \frac{2\pi}{3} \right\}$

D. $\left\{ \frac{\pi}{3}, \frac{2\pi}{3}, \pi, \frac{4\pi}{3} \right\}$

Standard II. Knowledge of Mathematics (Modeling and Analysis)

6. Which of the following base-10 numbers represents $360_8 - 10_4$?

A. 230

B. 232

C. 236

D. 238

Answer Key to Sample Selected Response Items

Item Number	Correct Response
1	A
2	A
3	C
4	D
5	B
6	C

Sample Constructed Response Exercises and Scoring Rubrics for EA/Mathematics Component 1

This section includes

- **sample constructed response exercises** to help you become familiar with the content and format of the exercises on an actual computer-based assessment. These exercises include instructions for using the computer, stimulus materials (if applicable), and prompts requiring responses.

Although this section illustrates some of the types of exercises that appear on the assessment, note that these sample exercises do not necessarily define the content or difficulty of the exercises on an actual assessment.

Please note these constructed response exercises cover the **entire** age range of the certificate. Be aware that you are expected to demonstrate knowledge of developmentally appropriate content across the full range of your certificate.

- **scoring rubrics** that are used by assessors in evaluating your responses to help you understand how your responses are assessed.

Sample Exercise 1 and Scoring Rubric

Sample Exercise 1

Standard II. Knowledge of Mathematics

Exercise 1: Algebra and Functions - Candidate Name		⌚ Time Remaining 29:31
Algebra and Functions		
<u>Introduction</u>		
In this exercise, you will use your knowledge of algebra and functions to model problem situations, employ algebraic techniques and procedures, and explain a functional relationship depicted in a given situation. You will be asked to respond to three prompts.		
<u>Criteria for Scoring</u>		
To satisfy the highest level of the scoring rubric, your responses must provide clear, consistent, and convincing evidence of the following:		
<ul style="list-style-type: none">• a complete and accurate graphical representation of a given set of data;• an accurate identification of an algebraic function and a complete and accurate algebraic equation that fits the given data;• an accurate and fully supported solution to an algebraic equation; and• a complete and accurate modeling of a given situation and appropriate identification of its type of functional relationship.		
<u>Directions</u>		
You may preview all of the prompts by clicking the Next button. The Previous button will enable you to return to any of the prompts.		
You must write your responses to all prompts for this exercise in the blue section for Exercise 1 on pages 3–12 of the Response Booklet. Graph paper is provided on pages 11–12 of this section. Your score for this exercise will be based only on what you write in the blue section for Exercise 1 of the Response Booklet.		
? Help	⦿ Navigator	Next →

Exercise 1: Algebra and Functions - Candidate Name

⌚ Time Remaining
29:31

1. This is Prompt 1 of 3. The second prompt appears on the next screen.

Use the table below to respond to this prompt.

Amount of Heating Oil in Tank	
Days Since Filled (x)	Gallons of Heating Oil (y)
5	460
10	420
15	380
20	340
25	300
30	260
...	...

You must address each of the following in your response to this prompt.

- Graph the data in the table. Label axes and indicate scales.
- Identify the type of function illustrated by the data and write an algebraic equation that expresses y as a function of x .

Write your response in the blue section for Exercise 1 on pages 3–12 of the Response Booklet. Label your response as Prompt Number 1. Graph paper is provided on pages 11–12 of this section.

? Help

⦿ Navigator

Next →

Exercise 1: Algebra and Functions - Candidate Name		⌚ Time Remaining 29:31
2. This is Prompt 2 of 3. The third prompt appears on the next screen. Use the equation below to respond to this prompt. $x + (x + 1) + (x + 2) + (x + 3) = 36$ <p>Solve the equation for x in at least four steps. Justify each step of your solution by citing one of the following for each justification: addition property of equality, additive inverse, combining like terms, distributive property, factoring, multiplication property of equality, multiplicative inverse.</p> <p>Write your response in the blue section for Exercise 1 on pages 3–12 of the Response Booklet. Label your response as Prompt Number 2. Graph paper is provided on pages 11–12 of this section.</p>		
? Help	⦿ Navigator	Next →

Exercise 1: Algebra and Functions - Candidate Name		⌚ Time Remaining 29:31
3. This is Prompt 3 of 3. Use the information below to respond to this prompt. A teacher tells her students that she will place one penny in a jar on the first day of school and will double the amount for each day after. She tells her students she will do this for 15 days. <ul style="list-style-type: none">• You must address each of the following in your response to this prompt.• Make a graph that represents the amount of pennies in the jar, y, as a function of time, x.• Identify the type of functional relationship depicted in the graph. <p>Write your response in the blue section for Exercise 1 on pages 3–12 of the Response Booklet. Label your response as Prompt Number 3. Graph paper is provided on pages 11–12 of this section.</p>		
? Help	⦿ Navigator	Next →

Scoring Rubric for Exercise 1

The **LEVEL 4** response provides *clear, consistent, and convincing* evidence of the ability to model problem situations, employ algebraic techniques and procedures, and explain a functional relationship depicted in a given situation.

Characteristics:

- Complete and accurate graphical representation of a given set of data.
- Accurate identification of an algebraic function and complete and accurate algebraic equation that fits the given data.
- Accurate and fully supported solutions to algebraic equations.
- Complete and accurate modeling of a given situation, and appropriate identification of its functional relationship.

The **LEVEL 3** response provides *clear* evidence of the ability to model problem situations, employ algebraic techniques and procedures, and explain a functional relationship depicted in a given situation.

Characteristics:

- Accurate graphical representation of a given set of data.
- Accurate identification of an algebraic function and complete and accurate algebraic equation that fits the given data.
- Accurate solutions to algebraic equations, though lacking full support.
- A representative sketch and logical explanation of the functional relationship in a given situation.

The **LEVEL 2** response provides *limited* evidence of the ability to model problem situations, employ algebraic techniques and procedures, and explain a functional relationship depicted in a given situation.

Characteristics:

- Incomplete and/or inaccurate graphical representation of a given set of data.
- Inaccurate identification of an algebraic function and an incomplete algebraic equation that does not fit the given data.
- Somewhat inaccurate and unsupported solutions to algebraic equations.
- An incomplete sketch and/or incomplete explanation of the functional relationship in a given situation.

The **LEVEL 1** response provides *little or no* evidence of the ability to model problem situations, employ algebraic techniques and procedures, and explain a functional relationship depicted in a given situation.

Characteristics:

- Incomplete and inaccurate graphical representation of a given set of data.
- Inaccurate or missing identification of an algebraic function and an incomplete algebraic equation that does not fit the given data, or the equation is missing.
- Inaccurate or missing solutions to algebraic equations.
- An incomplete or missing sketch and incomplete or missing explanation of the functional relationship in a given situation.

Sample Exercise 2 and Scoring Rubric

Sample Exercise 2

Standard II. Knowledge of Mathematics

Exercise 2: Geometry - Candidate Name	 Time Remaining 29:31
<p style="text-align: center;">Geometry</p> <p style="text-align: center;"><u>Introduction</u></p> <p>In this exercise, you will use your knowledge of geometry to perform the transformations of dilation, reflection, rotation, and translation on a two-dimensional figure and explain how the two figures are congruent and/or similar. In addition, you will explain the volume formula of a three-dimensional figure and how it relates to the volume of a figure with the same type of base. You will be asked to respond to two prompts.</p> <p style="text-align: center;"><u>Criteria for Scoring</u></p> <p>To satisfy the highest level of the scoring rubric, your responses must provide clear, consistent, and convincing evidence of the following:</p> <ul style="list-style-type: none">• accurate transformations of dilation, reflection, rotation, and translation on a two-dimensional figure and an explanation of how the figures are congruent and/or similar; and• a thorough and accurate analysis of the volume of a three-dimensional figure and how it relates to the volume of a figure with the same type of base. <p style="text-align: center;"><u>Directions</u></p> <p>You may preview all of the prompts by clicking the Next button. The Previous button will enable you to return to any of the prompts.</p> <p>You must write your responses to all prompts for this exercise in the red section for Exercise 2 on pages 13–22 of the Response Booklet. Graph paper is provided on pages 21–22 of this section. Your score for this exercise will be based only on what you write in the red section for Exercise 2 of the Response Booklet.</p>	
? Help	⦿ Navigator Next →

Exercise 2: Geometry - Candidate Name

 Time Remaining
29:31

1. This is Prompt 1 of 2. The second prompt appears on the next screen.

Refer to the two-dimensional figure described below to respond to this prompt.

A pentagon lies in the xy -coordinate plane with the following coordinates as its vertices: A(2, 4), B(4, 5), C(6, 4), D(6, 2) and E(4, 1).

You must address each of the following in your response to this prompt.

- The pentagon is dilated by a scale factor of 1.5 with the origin as the center of the dilation. Give the coordinates of the vertices of the resulting figure.
- The original pentagon is reflected over the line $y = -x$. Give the coordinates of the vertices of the resulting figure.
- The original pentagon is rotated 270 degrees counterclockwise about the origin. Give the coordinates of the vertices of the resulting figure.
- The original pentagon is translated down 2 units and left 3 units. Give the coordinates of the vertices of the resulting figure.
- The original pentagon is reflected over one of two parallel lines. The image is then reflected over the other parallel line. Describe a single transformation that would result in a congruent image.
- A second pentagon in the xy -coordinate plane has the following coordinates as its vertices: A(3, 2), B(4, 2.5), C(5, 2), D(5, 1), and E(4, 0.5). Describe a series of transformations that prove this pentagon is similar to the original pentagon.

Write your response in the red section for Exercise 2 on pages 13–22 of the Response Booklet. Label your response as Prompt Number 1. Graph paper is provided on pages 21–22 of this section.

? [Help](#)

 [Navigator](#)

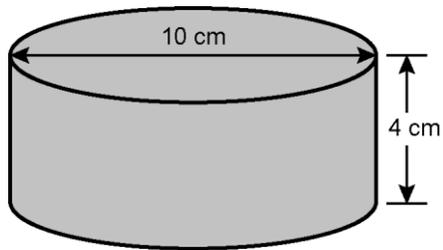
[Next](#) →

Exercise 2: Geometry - Candidate Name

 Time Remaining
29:31

2. This is Prompt 2 of 2.

The three-dimensional solid shown below is a cylinder with a diameter of 10 centimeters (cm) and a height of 4 centimeters.



There is a cone with the same base measurement and height.

- Explain how the volume of the cylinder compares to the volume of the cone. Show all work.

Write your response in the red section for Exercise 2 on pages 13–22 of the Response Booklet. Label your response as Prompt Number 2. Graph paper is provided on pages 21–22 of this section.

? [Help](#)

 [Navigator](#)

[Next](#) →

Scoring Rubric for Exercise 2

The **LEVEL 4** response provides *clear, consistent, and convincing* evidence of the ability to perform the transformations of dilation, reflection, rotation, and translation on a two-dimensional object, and analyze the volume of a three-dimensional figure and how it relates to the volume of a figure with the same type of base.

Characteristics:

- Accurate transformations of dilation, reflection, rotation, and translation on a two-dimensional object and an explanation of how the figures are congruent and/or similar.
- A thorough and accurate analysis of the volume of a three-dimensional figure and how it relates to the volume of a figure with the same type of base.

The **LEVEL 3** response provides *clear* evidence of the ability to perform the transformations of dilation, reflection, rotation, and translation on a two-dimensional object, and analyze the volume of a three-dimensional figure and how it relates to the volume of a figure with the same type of base.

Characteristics:

- Mostly accurate transformations of dilation, reflection, rotation, and translation on a two-dimensional object and an explanation of how the figures are congruent and/or similar.
- An accurate analysis of the volume of a three-dimensional figure and how it relates to the volume of a figure with the same type of base.

The **LEVEL 2** response provides *limited* evidence of the ability to perform the transformations of dilation, reflection, rotation, and translation on a two-dimensional object, and analyze the volume of a three-dimensional figure and how it relates to the volume of a figure with the same type of base.

Characteristics:

- Somewhat inaccurate transformations of dilation, reflection, rotation, and translation on a two-dimensional object and an explanation of how the figures are congruent and/or similar.
- A somewhat incomplete or inaccurate analysis of the volume of a three-dimensional figure and how it relates to the volume of a figure with the same type of base.

The **LEVEL 1** response provides *little or no* evidence of the ability to perform the transformations of dilation, reflection, rotation, and translation on a two-dimensional object, and analyze the volume of a three-dimensional figure and how it relates to the volume of a figure with the same type of base.

Characteristics:

- Largely inaccurate, or missing, transformations of dilation, reflection, rotation, and translation on a two-dimensional object and an explanation of how the figures are congruent and/or similar.
- A significantly flawed, or missing, analysis of the volume of a three-dimensional figure and how it relates to the volume of a figure with the same type of base.

Sample Exercise 3 and Scoring Rubric

Sample Exercise 3

Standard II. Knowledge of Mathematics

Exercise 3: Data Analysis and Statistics - Candidate Name		Time Remaining 29:31
Data Analysis and Statistics		
<u>Introduction</u>		
In this exercise, you will use your knowledge of data analysis to provide various graphical representations and interpretations of a given set of data. You will be asked to respond to one prompt.		
<u>Criteria for Scoring</u>		
To satisfy the highest level of the scoring rubric, your response must provide clear, consistent, and convincing evidence of the following:		
<ul style="list-style-type: none">• a complete and accurate graphical representation of a given set of data;• a meaningful interpretation of the data that is based on the graphical representation;• an appropriate and accurate alternate graphical representation of the data; and• a meaningful, accurate, and distinct interpretation of the data that is based on the alternate graphical representation.		
<u>Directions</u>		
You may view the prompt by clicking the Next button.		
You must write your response to this exercise in the green section for Exercise 3 on pages 23–33 of the Response Booklet. Graph paper is provided on pages 32–33 of this section. Your score for this exercise will be based only on what you write in the green section for Exercise 3 of the Response Booklet.		
? Help	⦿ Navigator	Next →

Exercise 3: Data Analysis and Statistics - Candidate Name

 Time Remaining
29:31

A survey of 20 middle school students was conducted to research how much time students were spending online engaged in recreational pursuits. Students were asked, "On a typical weeknight, approximately how much time do you spend on the Internet or engaged in social media?"

Below you will find a set of data. Use the data to respond to the prompt.

Time Spent on Internet or Social Media			
2 hours	1 hour 40 minutes	80 minutes	60 minutes
90 minutes	55 minutes	1 hour	20 minutes
1 hour 15 minutes	4 hours 15 minutes	2.5 hours	None
3 hours	2 hours 10 minutes	4 hours	3.25 hours
2 hours 20 minutes	2 hours	1 hour 55 minutes	1 hour 40 minutes

You must address each of the following in your response.

- Create a boxplot of the data and provide a numerical analysis of the data that includes all of the following: minimum, first quartile, median, third quartile, maximum, and mean.
- Explain why the mean and median are or are not the same.
- Provide an analysis indicating two values 50% of the data lie between.
- Create **one** alternate graphical representation of the data. Provide an interpretation of the data revealed by this new graphical representation.

Write your response in the green section for Exercise 3 on pages 23–33 of the Response Booklet. Graph paper is provided on pages 32–33 of this section.

[? Help](#)

[© Navigator](#)

[Next →](#)

Scoring Rubric for Exercise 3

The **LEVEL 4** response provides *clear, consistent, and convincing* evidence of the ability to provide various graphical representations and interpretations of a given set of data.

Characteristics:

- Complete and accurate graphical representation of a given set of data.
- Meaningful interpretation of the data as seen through the graphical representation.
- Appropriate and accurate alternate graphical representation of the data.
- Meaningful, accurate, and fully distinct interpretation of the data as seen through its alternate graphical representation.

The **LEVEL 3** response provides *clear* evidence of the ability to provide various graphical representations and interpretations of a given set of data.

Characteristics:

- Mostly accurate graphical representation of a given set of data.
- Meaningful interpretation of the data as seen through the graphical representation.
- Mostly accurate and appropriate alternate graphical representation of the data.
- Meaningful and distinct interpretation of the data as seen through its alternate graphical representation.

The **LEVEL 2** response provides *limited* evidence of the ability to provide various graphical representations and interpretations of a given set of data.

Characteristics:

- Somewhat inaccurate graphical representation of a given set of data.
- Somewhat irrelevant interpretation of the data as seen through the graphical representation.
- Some inappropriate or inaccurate alternate graphical representation of the data.
- Some inaccuracies or irrelevancies or nondistinct interpretation of the data as seen through its alternate graphical representation.

The **LEVEL 1** response provides *little or no* evidence of the ability to provide various graphical representations and interpretations of a given set of data.

Characteristics:

- Inaccurate graphical representation of a given set of data.
- Irrelevant interpretation of the data as seen through the graphical representation.
- Inappropriate or inaccurate alternate graphical representation of the data.
- Inaccurate or irrelevant or nondistinct interpretation of the data as seen through its alternate graphical representation.

Calculator Information for EA/Mathematics Component 1

An online scientific calculator is available to you for this assessment. It is similar to the Texas Instruments handheld TI-30XS scientific calculator.

To access the calculator, click on the calculator icon located in the upper left corner of the screen. A pop-up window containing the calculator will appear. You can reposition the calculator by placing your cursor in the blue area above the calculator and dragging the window to the location of your choice.

Use the numbers on the keyboard and/or point and click with the mouse to enter your computations into the on-screen calculator. When you are finished, close the calculator by clicking the button in the upper right corner of the calculator.

Produced for

NATIONAL BOARD

for Professional Teaching Standards®

by



Pearson

© 2017 National Board for Professional Teaching Standards. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording, or any information storage or retrieval system, without permission in writing from the publisher.

The National Board for Professional Teaching Standards logo, National Board for Professional Teaching Standards, NBPTS, National Board Certified Teacher, NBCT, National Board Certification, Accomplished Teacher, and Profile of Professional Growth are registered trademarks or service marks of the National Board for Professional Teaching Standards. Other marks are trademarks or registered trademarks of their respective organizations.

The National Board for Professional Teaching Standards, Inc. has been funded in part with grants from the U.S. Department of Education. The contents of this publication do not necessarily represent the policy of the U.S. Department of Education, and you should not assume endorsement by the Federal Government. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the sponsors.

Prepared by Pearson for submission under contract with the National Board for Professional Teaching Standards®.

Pearson and its logo are trademarks, in the U.S. and/or other countries, of Pearson Education, Inc. or its affiliate(s).



Component 2

*Early Adolescence/
Mathematics*

**Component 2:
Differentiation
in Instruction**

**PORTFOLIO INSTRUCTIONS
AND SCORING RUBRIC**

NATIONAL BOARD
for Professional Teaching Standards®

Contents

Overview	1
Component 2: Differentiation in Instruction	1
EA/Mathematics Component 2 Portfolio Entry	1
Inside This Document	2
Portfolio Instructions for EA/Mathematics Component 2	3
What Do I Need to Do?	3
Selecting Instructional Activities	4
Composing Written Commentary	7
Component 2 Electronic Submission at a Glance	11
Component 2 Forms	12
Scoring Rubric for EA/Mathematics Component 2	16
Level 4	16
Level 3	17
Level 2	18
Level 1	19

Overview

This document provides information about the Early Adolescence/Mathematics (EA/Mathematics) Component 2 portfolio entry, instructions on how to develop and submit your evidence, and the scoring rubric used to assess your work.

Component 2: Differentiation in Instruction

This portfolio entry provides you with the opportunity to highlight your ability to evaluate learning strengths and needs for individual students; plan and implement appropriate differentiated instruction for those students; and analyze and modify instructional strategies and materials based on ongoing assessment. The tasks for all components and the rubrics used to assess candidate work have been developed in accordance with the Five Core Propositions and the certificate area Standards.

EA/Mathematics Component 2 Portfolio Entry

In the EA/Mathematics Component 2 portfolio entry:

- You choose two instructional activities and two student responses to each activity that demonstrate how you are able to design a sequence of learning experiences that builds on and gives you insight into students' conceptual understanding of a substantive idea in mathematics, within the context of instruction that enhances students' abilities to think and reason mathematically.
- You submit a Written Commentary that provides a context for your instructional choices and describes, analyzes, and reflects on your teaching.

EA/Mathematics Standards Measured by Component 2

Because the purpose of the tasks in the portfolio components is to measure your teaching practice, the overall focus of the portfolio entry and rubrics is on your pedagogical knowledge and skills and how successfully you are able to apply these knowledge and skills to advance student learning.

The portfolio entry for this component, "Differentiation in Instruction," measures the following EA/Mathematics Standards, and your submission will be evaluated based on these standards through the scoring rubric:

- II. Knowledge of Mathematics
- III. Knowledge of Students
- IV. Knowledge of the Practice of Teaching
- VI. Ways of Thinking Mathematically
- VII. Assessment
- VIII. Reflection and Growth

For the complete EA/Mathematics Standards, refer to **www.nbpts.org/national-board-certification/candidate-center**.

The EA/Mathematics Component 2 scoring rubric defines the level of accomplished teaching that you must demonstrate. The wording in the rubric reflects levels of performance within the Component 2 tasks.

You should read the Standards and rubric while developing your portfolio entry to understand how the rubric guides assessors in evaluating your work.

Inside This Document

This document includes the following two sections: "[Portfolio Instructions for EA/Mathematics Component 2](#)," which describes how to develop and submit your evidence, and "[Scoring Rubric for EA/Mathematics Component 2](#)," which provides the scoring rubric used to assess your work.

Portfolio Instructions

The EA/Mathematics Component 2 portfolio instructions provide the following:

- Directions for developing and submitting your evidence of accomplished teaching.
- Forms required for this entry. As you prepare your portfolio, keep in mind some forms contain directions that are not repeated elsewhere; follow these directions carefully.
- An Electronic Submission at a Glance chart listing the materials you are required to collect and/or prepare as well as the release forms to keep for your records. Use this chart to complete and submit the appropriate materials to ensure proper scoring of your portfolio entry.

For more information about developing and submitting your portfolio entry, please refer to the *General Portfolio Instructions* and the *Guide to Electronic Submission* available at **www.nbpts.org/national-board-certification/candidate-center**.

Scoring Rubrics

The EA/Mathematics Component 2 scoring rubric is provided to assist you in understanding how your portfolio materials will be assessed. For more information about understanding and interpreting your scores, please refer to the *Scoring Guide* available at **www.nbpts.org/national-board-certification/candidate-center**.

Portfolio Instructions for EA/Mathematics

Component 2

This section contains the directions for developing and submitting the Component 2 EA/Mathematics portfolio entry and assembling it for submission. Entry directions include

- suggestions for planning your portfolio entry and choosing evidence of your teaching practice;
- questions that must be answered as part of your Written Commentary;
- an explanation of how to format, assemble, and submit your portfolio entry.

What Do I Need to Do?

This entry captures how you analyze each student’s understanding of a mathematical idea and reflect on how your sequence of instructional strategies works to further each student’s ability to think and reason mathematically.

In this entry, you

- demonstrate how the design and implementation of an instructional sequence or unit of study works to inform you of students’ knowledge and furthers student understanding of a substantive idea in mathematics;
- present evidence of your ability to plan and implement instruction to facilitate your students’ understanding of an important idea in mathematics;
- present your analysis of and reflection on the connections among your instructional goals, the instructional activity, and the ways student responses shape your teaching;
- demonstrate how the inferences and conclusions you draw from student performance affect your future instructional plans and goals.

What Do I Need to Submit?

For this entry, you must submit the following:

- **Completed Contextual Information Sheet (no more than 1 page)** that describes the broader context in which you teach (refer to the “[Component 2 Forms](#)” section of this document).
- **Written Commentary (no more than 12 pages)** that provides a context for your instructional choices and describes, analyzes, and reflects on your teaching.
- **Instructional activities materials:**
 - Completed Instructional Activity Forms (two forms, **no more than 1 page** each).
 - Two activities from the instructional sequence (**no more than 6 pages** combined) that support each other in developing student understanding of an important mathematical idea and give you information about each student’s understanding. You make connections among the mathematical idea, each of the two activities, the student responses, and your subsequent instruction. You demonstrate how your instruction helps your students achieve conceptual understanding of the mathematical idea.

- **Student Responses** from two students (**no more than 12 pages** combined). For each student, submit two responses, one for each of the two featured instructional activities.

Originality Requirements. It may be helpful to have a colleague review your work before you submit it. However, all of the work you submit as part of your response to this portfolio component must be yours and yours alone. The written analyses and other evidence you submit must feature teaching that you did and work that you oversaw. For more detailed information, see the ethics and collaboration section in the [General Portfolio Instructions](#) and the [National Board's ethics policy](#). If you submit materials and/or evidence which are in whole or in part substantially identical to those of another candidate, both of you could be disqualified from the certification process.

Before beginning to work on this entry, read the following directions for developing each element. Refer to the "[Component 2 Forms](#)" section of this document for the forms you will need to submit your materials. Word-processing files of these forms are also available to download from www.nbpts.org/national-board-certification/candidate-center.

The student work submitted for Component 2 and one of the two video recordings submitted for Component 3 may be from the same unit of instruction, but must be from different lessons that have unique lesson goals and objectives.

Selecting Instructional Activities

In this entry, you design and implement an extended instructional sequence that informs you of students' knowledge and furthers student understanding of a substantive idea in mathematics. You analyze two students' work from two instructional activities and provide feedback.

Selecting a Unit of Study or Instructional Sequence

Select a unit of study or instructional sequence from which you will select the student work created in response to two instructional activities. The instructional sequence must be one in which students are engaged in thinking and reasoning mathematically and building understanding of a major idea in mathematics. The mathematical thinking and reasoning involved in mathematical application can occur at any level, but the unit that you feature for this entry should not be one in which students are only memorizing procedures or are otherwise involved in rote learning. If the unit concerns the learning of and use of procedures, the focus for the activities selected should relate to the reasoning behind the procedures and/or to identifying patterns to explain different approaches to problems the procedures help solve. **You must choose an instructional sequence different from the one used in Component 3.**

Selecting Two Instructional Activities

Instructional activities are experiences that your students have (in or out of class) that contribute to their learning, such as class discussions, experiments, prompts, journal assignments, interactive demonstrations, problem solving, long-term projects, or other assessment tools. However, the instructional activities that you feature must result in written documentation by individual students to be suitable for inclusion with this entry. You may choose instructional activities that take place during a portion of a class period, an entire class period, or multiple class periods.

It is important that you build conceptual understanding of a mathematical idea and use what you learn from student responses to adjust instruction. To show how you develop understanding, you should feature two instructional activities that are clearly connected both to the mathematical idea and to each other. The two instructional activities you choose to feature do not have to be consecutive, although they may be.

Select the two instructional activities from two distinct points in the process of building students' understanding during your instructional sequence. The two instructional activities should be ones that you selected, adapted, or designed for the purposes of developing and assessing students' understanding through a significant sequence of instruction about an important mathematical idea. Each of the activities should represent your best instructional practice.

The instructional activities you choose to feature should challenge students to reason and think mathematically and should reveal to you essential information about how these students build knowledge and abilities in a particular area of mathematics. Students may complete the activities individually or in groups, but all students should be required to document their own mathematical understanding. It is important to choose instructional activities designed to illuminate and build on students' understanding of concepts and their mathematical thinking and reasoning.

The following are a few pairs of activities that may allow you to demonstrate critical parts of your teaching practice: discovery/connection, discovery/application, demonstration/exploration, readiness/problem solving, and demonstration/representation. There are many others.

There are many types of activities that foster students' understanding, but a drill-and-practice scenario may not show your best practice for this entry. Although often appropriate and useful in your teaching practice, this type of activity may not give you the opportunity to show and discuss your teaching practice.

Selecting Students Whose Work You Will Feature

Finally, select two students. To have several student work samples to choose from, collect more than one set of student responses to instructional activities from these two students and record the details you need to complete your analysis. It is important to choose students whose responses give you an opportunity to discuss your practice and how you differentiate instruction. Choosing two students who represent different kinds of challenges to you may readily give you such an opportunity.

Consider carefully before selecting the students for this entry. The students you choose may be from any point within the range of ability or performance that is represented in the featured class because the focus is on your teaching practice, not on the level of student performance. While students who excel in mathematics present an instructional challenge that is certainly worthy of inclusion in this response, you may find that other students provide a better opportunity to demonstrate your assessment of their understanding and your subsequent contribution to their development.

To facilitate your selection, you may want to select more students than necessary from this class and collect examples of their work over the course of the instructional period. Pick the two students who give you the best opportunity to discuss your practice and allow you to show your ability to differentiate between them as learners.

A signed release form is required for each student whose work samples are included. These release forms are available as PDF downloads from www.nbpts.org/national-board-certification/candidate-center. Retain completed student release forms for your records; do not submit them with your evidence.

How to Format and Submit Your Instructional Activities

- Complete a new Instructional Activity Form (no more than **1 page each**) for each activity (refer to the "[Component 2 Forms](#)" section of this document). Use single-spaced 11-point Arial font. Include the associated instructional activity and supporting materials that would help assessors understand the activity after each form in your file for submission.
- Submit no more than **6 pages total** for two instructional activities and supporting materials combined. Additional pages will not be scored. Forms do not count toward this total.
- Be sure that your instructional activity and supporting materials are legible and refer to people and places in ways that preserve anonymity. Follow the "Guidelines for Referring to People, Institutions, and Places" section in *General Portfolio Instructions*.
- Place your candidate ID number in the upper right corner of the first page of each electronic file you submit.
- Format your instructional activities to fit onto an 8.5" × 11" page. If instructional activities contain Web pages, each 8.5" × 11" Web page print out or PDF counts as **1 page** toward your page total. Note, however, the following exceptions:
 - If instructional activities were created in a multimedia software program, you may format up to six slides on one 8.5" × 11" page, which counts as **1 page** toward your page total.
 - If submitting a smaller item such as a photograph, you may insert a digitized image into a word-processing program document. Several smaller items can be grouped on a single page as long as they are readable.
- If instructional activities or supporting materials that are important for assessors to see are impractical to submit (e.g., slide projections, writing on a chalkboard or whiteboard, software, three-dimensional objects), submit a digitized drawing, image, or color photograph, or a **1-page** description of the material. (If you submit a description, it must be typed in double-spaced text with 1" margins on all sides using 11-point Arial font.)

Refer to the "[Component 2 Electronic Submission at a Glance](#)" chart in this document for file types acceptable for submission and how to assemble activity packets for submission.

How to Format and Submit Your Student Responses

- Complete a new Student Response Form for each student and activity (refer to the "[Component 2 Forms](#)" section of this document). Include the associated student response after each form in your file for submission.
- Submit no more than **12 pages total** of four student responses combined. Additional pages will not be scored. Forms do not count toward this total.
- Each student response must
 - represent a student's original work. The original electronic file or scanned image of student work is acceptable.
 - come from students who are in the class that is the basis for your Written Commentary.

- be from the same two students, responding to the same two activities that you are featuring in this entry.
- Be sure that your student responses are legible and refer to people and places in ways that preserve anonymity. Follow the “Guidelines for Referring to People, Institutions, and Places” section in *General Portfolio Instructions*.
- Place your candidate ID number in the upper right corner of the first page of each electronic file you submit. Clearly label student responses with the student’s first name, with “Student A” or “Student B,” and with the instructional activity (#1 or #2).
- Format your student responses to fit onto an 8.5" × 11" page. If student responses contain Web pages, each 8.5" × 11" Web page print out or PDF counts as **1 page** toward your page total. Note, however, the following exceptions:
 - If student responses were created in a multimedia software program, you may format up to six slides on one 8.5" × 11" page, which counts as **1 page** toward your page total.
 - If submitting a smaller item such as a photograph, you may insert a digitized image into a word-processing program document. Several smaller items can be grouped on a single page as long as they are readable.
- Do **not** submit video or audio recordings. If a student creates such a product or a multi-dimensional product, have **the student** write a **1-page** description of the assignment and what the student made. You may include photograph(s) or student-made drawings to accompany the description, if appropriate. The **1-page** description counts toward your page total.

Refer to the “[Component 2 Electronic Submission at a Glance](#)” chart in this document for file types acceptable for submission, page totals for each piece of evidence, and how to assemble student responses for submission.

Composing Written Commentary

In this entry, you submit a Written Commentary that provides a context for your instructional choices.

How to Organize and Present Your Written Commentary

- Create a word-processing document to compose your commentary. Enter the following section headings in the document:
 1. **Instructional Context**
 2. **Planning**
 3. **Analysis of Two Student Responses**
 4. **Reflection**
- Address the italicized questions in the following section entitled “What to Include in Your Written Commentary.” Provide your analysis under the appropriate section heading in your document.
- Refer to the “Writing about Teaching” section in *General Portfolio Instructions* for advice on developing your commentary and to see Written Commentary examples.
- When writing your commentary, refer to people and places in ways that preserve anonymity. Follow the “Guidelines for Referring to People, Institutions, and Places” section in *General Portfolio Instructions*.

- Place your candidate ID number in the upper right corner of the first page of your commentary document.
- Use the following language and format specifications when writing your commentary:
 - Write in English.
 - Use double-spaced 11-point Arial font.
 - Format 1-inch margins on all sides of the document.

Refer to the "[Component 2 Electronic Submission at a Glance](#)" chart in this document for complete submission requirements.

- Your commentary will be scored based on the content of your analysis; however, proofread your writing for spelling, mechanics, and usage.
- Submit a document for your commentary of **no more than 12 pages**. If you submit a longer document, only the first 12 pages will be scored.

What to Include in Your Written Commentary

Your Written Commentary must address the italicized questions provided below for each section. Statements in plain text that immediately follow an italicized question help you interpret the question. It is not necessary to include the italicized questions within the body of your response. Use the suggested page lengths in parentheses after each section heading as a guideline when addressing the questions in each section.

1. Instructional Context (Suggested length: 1 page)

Provide the following information in addition to the context that you supply on the Contextual Information Sheet, which focuses on the school or district at large. In this section, address the following questions about your selected class:

- *What are the number, ages, and grades of the students in the class featured in this entry and the title and subject matter of the class? (Example: 26 students in grade 7, ages 12 and 13, prealgebra, real number operations)*
- *What are the relevant characteristics of this class that influenced your planning for this instructional sequence: ethnic, cultural, and linguistic diversity; the range of abilities of the students; the personality of the class?*
- *What are the relevant characteristics of the students with exceptional needs and abilities that influenced your planning for this instructional sequence (for example, the range of abilities and the cognitive, social/behavioral, attentional, sensory, and/or physical challenges of your students)? Give any other information that might help the assessor "see" this class.*
- *What are the relevant features of your teaching context that influenced the selection of this instructional sequence? This might include the realities of the social and physical teaching context (e.g., available resources) that are relevant to your response.*
- *What particular instructional challenges are represented by the class chosen for this entry? This might include, but is not limited to, a description of your students' skills, knowledge, and previous experiences that relates to the mathematics you teach.*

2. Planning (Suggested length: 4 pages)

In this section, address the following questions:

- *What was the substantive mathematical idea of this instructional sequence or unit? What were your learning goals for the entire instructional sequence or unit? That is, when students complete this instructional sequence, what do they know or what should they be able to do that they could not do at the outset of the instructional sequence?*
- *How do these goals support and facilitate your students' understanding of the mathematical idea under study? Justify why these goals are important. Consider all students in your class, not just the two featured students.*
- *What were the major activities you and your students engaged in during the entire unit or instructional sequence? How were the activities in the unit sequenced and organized to build on students' interests and prior knowledge, and to develop mathematical understandings, as the entire sequence unfolded? Describe the instructional sequence or unit you implemented to facilitate student progress in conceptual understanding of the mathematical idea. Briefly describe those activities included in the instructional sequence or unit that support the development of the students' conceptual understanding of the mathematical idea under study. Note which activities you are featuring in this entry. Provide this information in addition to the detailed information that you provide in response to the questions on the Instructional Activity Forms.*
- *How does each of the two featured instructional activities contribute to the students' development of conceptual understanding of the mathematical idea? Specifically describe the connections between each of the featured activities and the mathematical idea, as well as the connection between the two featured activities. What are specific examples of the ways the activities worked together to further your students' thinking and reasoning about the important mathematical idea that your learning goals are based on?*
- *How do the two featured instructional activities work together to allow you to assess a student's conceptual understanding? Explain how the two instructional activities work together to elicit responses that allow you to adjust instruction in light of your stated instructional goals.*
- *What challenges are inherent in teaching this mathematical idea? What specific challenges were presented by this class as you teach this mathematical idea? How is your instruction designed to meet these challenges? Explain any modifications you made and the reasons for them.*

3. Analysis of Two Student Responses (Suggested length: 5 pages)

In a separate section for **each** student, address the following questions. Label each section with the student's first name. In your response to the questions, refer explicitly to the two featured instructional activities and the student's responses to both activities to provide concrete examples to illustrate your points. Cite the activities by their numbers (Activity 1 or 2). In this section, address the following questions:

- *Why did you choose this student? What particular instructional challenges does this student represent? What is important to know about this student to understand and interpret her or his responses? Describe the unique characteristics of this student as a learner in general and as a learner of mathematics.*
- *What does this student's work tell you about the achievement of your learning goals and his or her understanding of the material that you presented? Comment on particular mathematical understandings revealed by this student's response—misconceptions, gaps in prior knowledge, mastery of essential concepts, and the like. From this student's response, cite evidence that illustrates the extent to which the mathematical reasoning and thinking you stated took place.*
- *What does your comparing and contrasting of the responses to the two instructional activities tell you about this student's conceptual understanding? What feedback strategies did you use for this student to foster growth as a student of mathematics? Provide specific evidence of the nature and content of the feedback, including written and verbal comments.*

4. Reflection (Suggested length: 2 pages)

In this section, address the following questions:

- *What does the work of each of the two students suggest about next steps for your instruction—including mathematical instruction? What is the evidence for that judgment?*
- *After reviewing student responses to the activities, what would you do differently, if anything, in these activities or in advance of these activities if you were to use them again? What would you repeat? Why?*

Component 2 Electronic Submission at a Glance

Submit your evidence of accomplished teaching using the electronic portfolio management system (see the *Guide to Electronic Submission*). Use the following chart to determine how to group your evidence and submit it electronically. Forms are available as word-processing files that you can download from www.nbpts.org/national-board-certification/candidate-center as well as on the following pages of this document.

Early Adolescence/Mathematics Component 2: Differentiation in Instruction				
What to Submit	Supported File Types	Number of Files to Submit	Response Length	Additional Information
Contextual Information Sheet(s) (form provided)	doc, docx, odt, or pdf	1	No more than 1 page	<ul style="list-style-type: none"> Use 11-point Arial font Single space
Written Commentary	doc, docx, odt, or pdf	1	No more than 12 pages	<ul style="list-style-type: none"> Use 11-point Arial font Double space with 1" margins on all sides
Instructional Activities (form provided)	doc, docx, odt, or pdf	2	Two Instructional Activity Forms no more than 1 page each—forms do not count in page totals No more than 6 pages for two instructional activities combined	Submit 1 packet for each activity: <ul style="list-style-type: none"> Instructional Activity #1 Packet <ul style="list-style-type: none"> Instructional Activity Form for Activity #1 Activity #1 and supporting materials Instructional Activity #2 Packet <ul style="list-style-type: none"> Instructional Activity Form for Activity #2 Activity #2 and supporting materials
Student Responses (form provided)	doc, docx, odt, or pdf	2	No more than 12 pages for four student responses combined (two students, two responses each)—forms do not count in page totals	Submit responses from two students for each activity: <ul style="list-style-type: none"> Instructional Activity #1 Student Responses <ul style="list-style-type: none"> Student Response Form with Student A response to Activity #1 Student Response Form with Student B response to Activity #1 Instructional Activity #2 Student Responses <ul style="list-style-type: none"> Student Response Form with Student A response to Activity #2 Student Response Form with Student B response to Activity #2

A signed release form is required for each student whose work samples are included. These release forms are available as PDF downloads from www.nbpts.org/national-board-certification/candidate-center. **Retain completed student release forms for your records; do not submit them with your evidence.**

Component 2 Forms

This section contains forms required for Component 2. You may complete these forms in two ways depending on the content of the form:

- For forms that require descriptions or explanations of evidence, you must download the word-processing files available at **www.nbpts.org/national-board-certification/candidate-center**, fill them out electronically, and then upload the electronic file or scanned image with the associated evidence to the electronic portfolio management system.

OR

- For forms that do not require descriptions or explanations of evidence and that are used solely to identify submitted evidence, you may print out the forms on the following pages, fill them out by hand, scan the completed forms with the associated evidence, and then upload the electronic file to the electronic portfolio management system.

As you prepare your portfolio, keep in mind some forms contain directions that are not repeated elsewhere; follow these directions carefully.

A signed release form is required for each student whose work samples are included. These release forms are available as PDF downloads from **www.nbpts.org/national-board-certification/candidate-center**.

EA/Mathematics Contextual Information Sheet

Directions: Respond to the prompts below (**no more than 1 single-spaced page in Arial 11-point font, including prompts**) by typing your responses within the brackets following each prompt. Do not delete or alter the prompts; both the prompts and your responses are included in the total page count allowed. Pages exceeding the maximum will not be scored.

This form asks you to describe the broader context in which you teach:

- **If you teach in different schools that have different characteristics, and this portfolio entry features students from more than one school**, please complete a separate sheet for each school associated with this portfolio entry.
- In this component, you are asked to provide specific information about the students in the class you have featured in the portfolio entry. This is *in addition* to the information requested here.
- For clarity, please avoid the use of acronyms.

Candidate ID#: []

1. Briefly identify the **type of school/program** in which you teach and the **grade/subject configuration** (single grade, departmentalized, interdisciplinary teams, etc.).

[]

2. Briefly identify.

Grades: []

Age Levels: []

Number of Students Taught Daily: []

Average Number of Students in Each Class: []

Courses: []

3. What information about your teaching context do you believe would be important for assessors to know to understand your portfolio entry? Be brief and specific.

Note: You might include details of any state or district mandates, information regarding the type of community, and access to current technology.

[]

EA/Mathematics Instructional Activity Form

Directions: Use a new form for each instructional activity.

Indicate your Candidate ID and the instructional activity (#1 or #2) below. Respond to the prompts (**no more than 1 single-spaced page in Arial 11-point font, including the prompts**) by typing your responses within the brackets following each prompt. Do not delete or alter the prompts; both the prompts and your responses are included in the total page count allowed. Pages exceeding the maximum will not be scored.

With each completed Instructional Activity Form, include the associated instructional activity and answer key or acceptable responses as well as any other relevant supporting materials that would help assessors understand the activity.

Candidate ID#: []

Instructional Activity: #1 [] #2 []

1. Describe the instructional activity. What did you do? What did the students do?

[]

2. What is the purpose of this activity? What did you want your students to learn?

[]

3. What instructional resources did you use for this activity (e.g., printed materials, community resources, laboratory equipment)? How were they used?

[]

EA/Mathematics Student Response Form

Directions: Use a new form for each student response.

Indicate your Candidate ID, the student (A or B), and the instructional activity (#1 or #2) below.

With each completed Student Response Form, include the associated student response.

Label the student response with the student's first name, with "Student A" or "Student B," and with the activity number (#1 or #2).

Candidate ID#: []

Student: A [] B []

Instructional Activity: #1 [] #2 []

Scoring Rubric for EA/Mathematics Component 2

Level 4

The **LEVEL 4** performance provides *clear, consistent, and convincing* evidence that the teacher is able to design a sequence of learning experiences that builds on, and gives insight into, students' conceptual understanding of a substantive idea in mathematics within the context of instruction that enhances students' abilities to think and reason mathematically.

The Level 4 performance provides *clear, consistent, and convincing* evidence:

- that the teacher sets high, worthwhile, and appropriate learning goals for students based on detailed knowledge of students' interest, abilities, and needs, and that he or she connects the instructional sequence to these goals.

The Level 4 performance provides evidence that the instructional activities are placed in the larger context of instruction that is designed to enhance student learning in mathematics.

- that the instructional sequence includes activities that are sequenced and organized to develop understanding of a substantive mathematical idea as the sequence unfolds while building on students' interest and prior knowledge. The sequencing of the activities is adept and the instruction is focused. The featured activities clearly and consistently promote mathematical reasoning on the part of students and are effective in eliciting responses that can affect instruction.
- of the teacher's deliberate intent to build students' conceptual understanding through the strength of the connections between each of the featured activities and the substantive mathematical idea as well as the connection between the two featured activities.
- that the teacher is able to integrate assessment into instruction and use strategies to probe and push students' mathematical thinking, particularly by providing feedback that includes targeted questions or instructive comments designed to encourage students to use and develop appropriate mathematical written communication, reasoning, and thinking. The analysis of student responses is detailed, specific, and accurate, showing differentiated insight into individual students' learning over time. The feedback and next steps provided to students are rich, detailed, and instructive, moving students toward greater understanding of the featured mathematical concept.
- of the connections among the concept of study, the instructional activities, the analysis of student responses, and the appropriate feedback and next steps for the students.
- of the teacher's own knowledge of mathematics and mathematics pedagogy, as shown through the selection of the concept, the way it is taught, and the teacher's analysis and response to the student work.
- that the teacher is able to accurately describe his or her own practice, analyze it fully and thoughtfully, and reflect on its implications and significance for future practice.

Overall, the Level 4 performance provides *clear, consistent, and convincing* evidence that the teacher is able to design a sequence of learning experiences that builds on, and gives insight into, students' conceptual understanding of a substantive idea in mathematics within the context of instruction that enhances students' abilities to think and reason mathematically.

Level 3

The **LEVEL 3** performance provides *clear* evidence that the teacher is able to design a sequence of learning experiences that builds on, and gives insight into, students' conceptual understanding of a substantive idea in mathematics within the context of instruction that enhances students' abilities to think and reason mathematically.

The Level 3 performance provides *clear* evidence:

- that the teacher sets appropriate learning goals for students based on knowledge of students' interest, abilities, and needs, and that he or she connects the instructional sequence to these goals.
- that the instructional activities are placed in the larger context of instruction that is designed to enhance student learning in mathematics.
- that the instructional sequence includes activities that are sequenced and organized to develop understanding of a substantive mathematical idea as the sequence unfolds while building on students' interest and prior knowledge. The featured activities promote mathematical reasoning on the part of students and are effective for eliciting responses that can affect instruction.
- of the teacher's intent to build students' conceptual understanding through the connections among each of the featured activities and the substantive mathematical idea, as well as the connection between the two featured activities.
- that the teacher is able to integrate assessment into instruction and use strategies to probe and push students' mathematical thinking, particularly by providing feedback that includes targeted questions or instructive comments designed to encourage students to use and develop appropriate mathematical written communication, reasoning, and thinking. The analysis of student responses is accurate, showing insight into individual students' learning over time. The feedback and next steps provided to students are instructive.
- of the teacher's own knowledge of mathematics and mathematics pedagogy, as shown through the selection of the concept, the way it is taught, and the teacher's analysis and response to the student work.
- that the teacher is able to accurately describe and analyze his or her own practice and reflect on its implications and significance for future practice.

The Level 3 performance may show imbalance or unevenness in the different sources of evidence or in different parts of the analysis. One part of the performance may be more indicative of accomplished practice than another, but overall, there is *clear* evidence that the teacher is able to design a sequence of learning experiences that builds on, and gives insight into, students' conceptual understanding of a substantive idea in mathematics within the context of instruction that enhances students' abilities to think and reason mathematically.

Level 2

The **LEVEL 2** performance provides *limited* evidence that the teacher is able to design a sequence of learning experiences that builds on, and gives insight into, students' conceptual understanding of a substantive idea in mathematics within the context of instruction that enhances students' abilities to think and reason mathematically.

The Level 2 performance provides *limited* evidence:

- that the teacher sets appropriate learning goals for students and connects the instructional sequence to these goals. The goals for student learning may be vaguely articulated, of limited significance, or only loosely related to the instruction or student needs.
- that the instructional sequence includes activities that develop students' understanding of a substantive mathematical idea, but thought given to the sequencing of activities may not be evident. The connections to students' prior knowledge may not be clear, and/or the connection to the mathematical concept may not be strong. Though generally addressing the featured mathematical concept, the learning activities may not clearly promote mathematical reasoning on the part of students and may be more procedural or computational, rather than conceptual, in their focus. The activities may be only somewhat effective in eliciting significant information about student understanding.
- that the teacher furthers students' mathematical understanding through his or her analysis and assessment of students' responses to the instructional activity/prompt. The teacher shows limited knowledge of students and limited insight into their learning. Though generally accurate, the analysis of student responses is limited in its scope and specificity and may not address conceptual elements of the work that merit attention. The feedback and next steps provided to students may be general, nonspecific, or incomplete.
- of the teacher's own knowledge of mathematics and mathematics pedagogy.
- that the teacher is able to describe and analyze his or her practice, but the reflection may be vague, general, or focused solely on the procedural aspects of teaching.

The Level 2 performance may be characterized by evidence that hints at accomplished practice, but is too fragmented or uneven to support a classification as a Level 3 performance. Overall, there is *limited* evidence that the teacher is able to design a sequence of learning experiences that builds on, and gives insight into, students' conceptual understanding of a substantive idea in mathematics within the context of instruction that enhances students' abilities to think and reason mathematically.

Level 1

The **LEVEL 1** performance provides *little or no* evidence that the teacher is able to design a sequence of learning experiences that builds on, and gives insight into, students' conceptual understanding of a substantive idea in mathematics within the context of instruction that enhances students' abilities to think and reason mathematically.

The Level 1 performance provides *little or no* evidence:

- that the teacher sets appropriate learning goals for students and/or connects the instructional sequence to these goals. The goals for student learning may not be goals at all, but rather activities. When stated, the goals are vague, trivial, inappropriate, or not connected to the instruction or student needs.
- that the instructional sequence includes activities that develop students' understanding of a substantive mathematical idea. The sequencing of activities may be illogical or extremely disjointed, and the activities may not address the selected concept.
- of connections to students' prior knowledge. The learning activities do not promote mathematical reasoning on the part of students and may be entirely procedural or computational, rather than conceptual, in their focus. The activities may not be useful for gaining significant insight into student understanding. The learning experiences may consist entirely of closed-ended, trivial activities.
- that the teacher furthers students' mathematical understanding through his or her analysis and assessment of students' responses to the instructional activity/prompt. The teacher shows little or no knowledge of students and little or no insight into their learning. The analysis of student responses may consist solely of what students got right and/or wrong or may focus on criteria outside the stated learning goals. The analysis may fail to recognize students' progress and instead focus on students' mistakes, or it may be so superficial that it misses important elements of the work that merit attention. The feedback and next steps provided to students may be absent or inappropriate.
- of the teacher's own knowledge of mathematics and mathematics pedagogy; serious misconceptions about mathematics may be evident.
- that the teacher is able to reflect on his or her practice. The reflection may be missing or disconnected from the instructional evidence.

Overall, there is *little or no* evidence that the teacher is able to design a sequence of learning experiences that builds on, and gives insight into, students' conceptual understanding of a substantive idea in mathematics within the context of instruction that enhances students' abilities to think and reason mathematically.

Produced for

NATIONAL BOARD

for Professional Teaching Standards®

by

PEARSON

© 2020 National Board for Professional Teaching Standards. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording, or any information storage or retrieval system, without permission in writing from the publisher.

The National Board for Professional Teaching Standards logo, National Board for Professional Teaching Standards, NBPTS, National Board Certified Teacher, NBCT, National Board Certification, *Take One!*, *Accomplished Teacher*, and Profile of Professional Growth are registered trademarks or service marks of the National Board for Professional Teaching Standards. Other marks are trademarks or registered trademarks of their respective organizations.

The National Board for Professional Teaching Standards, Inc. has been funded in part with grants from the U.S. Department of Education and the National Science Foundation. The contents of this publication do not necessarily represent the policy of the U.S. Department of Education or the National Science Foundation, and you should not assume endorsement by the Federal Government. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the sponsors.

Prepared by Pearson for submission under contract with the National Board for Professional Teaching Standards®.

Pearson and its logo are trademarks, in the U.S. and/or other countries, of Pearson Education, Inc. or its affiliate(s).

EA/Mathematics Contextual Information Sheet

Directions: Respond to the prompts below (**no more than 1 single-spaced page in Arial 11-point font, including prompts**) by typing your responses within the brackets following each prompt. Do not delete or alter the prompts; both the prompts and your responses are included in the total page count allowed. Pages exceeding the maximum will not be scored.

This form asks you to describe the broader context in which you teach:

- **If you teach in different schools that have different characteristics, and this portfolio entry features students from more than one school**, please complete a separate sheet for each school associated with this portfolio entry.
- In this component, you are asked to provide specific information about the students in the class you have featured in the portfolio entry. This is *in addition* to the information requested here.
- For clarity, please avoid the use of acronyms.

Candidate ID#: []

1. Briefly identify the **type of school/program** in which you teach and the **grade/subject configuration** (single grade, departmentalized, interdisciplinary teams, etc.).

[]

2. Briefly identify.

Grades: []

Age Levels: []

Number of Students Taught Daily: []

Average Number of Students in Each Class: []

Courses: []

3. What information about your teaching context do you believe would be important for assessors to know to understand your portfolio entry? Be brief and specific.

Note: You might include details of any state or district mandates, information regarding the type of community, and access to current technology.

[]

EA/Mathematics Instructional Activity Form

Directions: Use a new form for each instructional activity.

Indicate your Candidate ID and the instructional activity (#1 or #2) below. Respond to the prompts (**no more than 1 single-spaced page in Arial 11-point font, including the prompts**) by typing your responses within the brackets following each prompt. Do not delete or alter the prompts; both the prompts and your responses are included in the total page count allowed. Pages exceeding the maximum will not be scored.

With each completed Instructional Activity Form, include the associated instructional activity and answer key or acceptable responses as well as any other relevant supporting materials that would help assessors understand the activity.

Candidate ID#: []

Instructional Activity: #1 [] #2 []

1. Describe the instructional activity. What did you do? What did the students do?

[]

2. What is the purpose of this activity? What did you want your students to learn?

[]

3. What instructional resources did you use for this activity (e.g., printed materials, community resources, laboratory equipment)? How were they used?

[]

EA/Mathematics Student Response Form

Directions: Use a new form for each student response.

Indicate your Candidate ID, the student (A or B), and the instructional activity (#1 or #2) below.

With each completed Student Response Form, include the associated student response.

Label the student response with the student's first name, with "Student A" or "Student B," and with the activity number (#1 or #2).

Candidate ID#: []

Student: A [] B []

Instructional Activity: #1 [] #2 []



Component 3

*Early Adolescence–
Adolescence and Young
Adulthood/Mathematics*

**Component 3:
Teaching Practice
and Learning
Environment**

**PORTFOLIO INSTRUCTIONS
AND SCORING RUBRIC**

NATIONAL BOARD
for Professional Teaching Standards®

Contents

Overview	1
Component 3: Teaching Practice and Learning Environment	1
EA–AYA/Mathematics Component 3 Portfolio Entry	1
Inside This Document	2
Portfolio Instructions for EA–AYA/Mathematics Component 3	3
What Do I Need to Do?	3
Planning and Selecting Instructional Materials	6
Recording Your Videos	7
Composing Written Commentary	11
Component 3 Electronic Submission at a Glance	13
Component 3 Forms	14
Scoring Rubric for EA–AYA/Mathematics Component 3	18
Level 4	18
Level 3	19
Level 2	20
Level 1	21

Overview

This document provides information about the Early Adolescence–Adolescence and Young Adulthood/Mathematics (EA-AYA/Mathematics) Component 3 portfolio entry, instructions on how to develop and submit your evidence, and the scoring rubric used to assess your work.

Component 3: Teaching Practice and Learning Environment

This portfolio entry captures details about your instructional planning, direct evidence of your practice from two video recordings and instructional materials, and your analysis of and reflection on your teaching as displayed in two video recordings. You will be evaluated on the demonstrated evidence of your practice and analysis as it relates to instruction, student engagement, and the learning environment. This portfolio entry and the rubric used to assess your submission are aligned with the Five Core Propositions and the certificate area Standards.

EA-AYA/Mathematics Component 3 Portfolio Entry

In the EA-AYA/Mathematics Component 3: Teaching Practice and Learning Environment portfolio entry:

- You provide a brief overview of the content of your overall submission.
- You submit two 10–15 minute videos of your teaching practice, showcasing different instructional units, content, and strategies in each.
- You submit information about the instructional context for each video.
- You describe your instructional planning for the lesson featured in each video and submit appropriate supporting materials.
- You submit a commentary for each video that includes analysis and reflection on your teaching practice; that communicates your pedagogical decision making before, during, and after the lesson shown in the video; and that focuses on your impact on student learning.

EA-AYA/Mathematics Standards Measured by Component 3

Because the purpose of the tasks in the portfolio components is to measure your teaching practice, the overall focus of the portfolio entries and rubrics is on your pedagogical knowledge and skills and how successfully you are able to apply these knowledge and skills to advance student learning.

The portfolio entry for this component, “Teaching Practice and Learning Environment,” measures the following Mathematics Standards, and your submission will be evaluated based on these standards through the scoring rubric.

- I. Commitment to Mathematics Learning of All Students
- II. Knowledge of Mathematics
- III. Knowledge of Students
- IV. Knowledge of the Practice of Teaching
- V. Learning Environment

- VI. Ways of Thinking Mathematically
- VII. Assessment
- VIII. Reflection and Growth
- IX. Families and Communities
- X. Professional Community

For the complete Mathematics Standards, refer to **www.nbpts.org/national-board-certification/candidate-center**.

The EA-AYA/Mathematics Component 3 scoring rubric defines the level of accomplished teaching that you must demonstrate. The wording in the rubric reflects levels of performance within the Component 3 tasks.

You should read the Standards and the rubric while developing your portfolio entry to understand how the rubric guides assessors in evaluating your work.

Inside This Document

This document includes the following two sections: "[Portfolio Instructions for EA-AYA/Mathematics Component 3](#)," which describes how to develop and submit your evidence, and "[Scoring Rubric for EA-AYA/Mathematics Component 3](#)," which provides the scoring rubric used to assess your work.

Portfolio Instructions

The EA-AYA/Mathematics Component 3 portfolio instructions provide the following:

- Directions for developing and submitting your evidence of accomplished teaching.
- Forms required for this entry. As you prepare your portfolio, keep in mind some forms contain directions that are not repeated elsewhere; **follow these directions carefully.**
- An **Electronic Submission at a Glance** chart listing the materials you collect and/or prepare as well as the release forms to keep for your records. Submitting complete and appropriate materials is essential for proper scoring of your portfolio entry.

For general information about developing and submitting your materials, refer to the *General Portfolio Instructions* available at **www.nbpts.org/national-board-certification/candidate-center**.

For instructions on using the electronic portfolio management system to submit your materials, review the tips, tools, and tutorials and the *Guide to Electronic Submission* at **www.nbpts.org/national-board-certification/candidate-center**.

Scoring Rubric

The EA-AYA/Mathematics Component 3 scoring rubric is provided to assist you in understanding how your portfolio materials will be assessed. For more information about understanding and interpreting your scores, please refer to the *Scoring Guide* available at **www.nbpts.org/national-board-certification/candidate-center**.

Portfolio Instructions for EA–AYA/Mathematics Component 3

This section contains the directions for developing and submitting the Component 3 EA–AYA/Mathematics portfolio entry and assembling it for submission. Entry directions include

- suggestions for planning your portfolio entry and choosing evidence of your teaching practice;
- an explanation of how to format, assemble, and submit your portfolio entry;
- questions that must be answered as part of your submission.

Before beginning to work on this portfolio entry, read the following directions for developing each element.

What Do I Need to Do?

This entry captures your ability to integrate the domains of mathematics and your development of students' abilities to engage with you and with each other in meaningful mathematics discourse. Each of the two videos you submit should show you and your students engaged in a topic or concept, or addressing a problem that is directly related to your instructional goal(s).

Identify two lessons from different instructional units for which you will provide information about your instructional planning and choice of materials and will capture video that shows evidence of your teaching practice, the learning environment, and student engagement. Together the two lessons must demonstrate a breadth of content in mathematics, different instructional formats (i.e., large group, small group, one on one, or other configuration that is appropriate for your situation), and different teaching strategies.

In this entry, you

- provide an overview of your entire entry, with your rationales for including the two videos to illustrate your instruction of mathematics;
- describe your learning goals and demonstrate instructional planning appropriate to the students, content, and context for two lessons from different instructional units;
- show at least two different instructional formats and demonstrate at least two different teaching strategies that you use to help students meet the learning goals;
- provide your analysis of your students' growth and development as individuals who can reason and think mathematically, formulate and solve problems, justify and communicate conclusions, and question and extend those conclusions.

What Do I Need to Submit?

For this entry you must submit the forms and evidence described in this section. Refer to the specific sections for each part of the portfolio and the "[Component 3 Electronic Submission at a Glance](#)" chart later in this document for detailed instructions about organizing and formatting your materials and page and time limits.

- **Introduction to the Entry.** Submit a completed Introduction to Entry Form in which you provide a brief overview of your entire entry (**no more than 1 page**). Describe the focus of Video 1 and the focus of Video 2 and your rationale for including this pair of videos in your portfolio submission.

- **Instructional Context.** For each video, submit a completed Instructional Context Sheet (**no more than 1 page for each video—2 pages total**) in which you provide information about your teaching context (e.g., school, program, schedule) and the students in the class featured in each video:
 - social and physical context (e.g., available resources such as technology, scheduling of classes, room allocation—own or shared space)
 - state and/or district mandates
 - student demographics of the classes featured in the videos (e.g., ethnic, cultural, and linguistic diversity; the range of abilities and the cognitive, social/behavioral, attentional, sensory, and/or physical challenges of your students)

For clarity, spell out the first occurrence of acronyms. Combine both Instructional Context Sheets in a single file for submission.

- **Videos.** Create two video recordings (**10–15 minutes each**) from two different instructional units. The two video recordings submitted for Component 3 and the evidence submitted for Component 2 and Component 4 must be from different lessons.
- **Instructional Planning and Materials.** For each video, submit a file containing the following materials (**no more than 6 pages total per file**):
 - a completed Instructional Planning Form (**no more than 1 page**) in which you provide the following:
 - the unit of instruction
 - the instructional goals for the unit
 - goals for the lesson featured in the video
 - the instructional format chosen for the lesson
 - a description of the materials or resources used
 - an accompanying description (**no more than 2 pages**) of your instructional planning and instructional strategies, and rationales for your choice of goals, strategies, and materials
 - one or more instructional materials (**no more than 3 pages total**)
- **Written Commentary.** For each video, write a commentary (**no more than 4 pages each**) on the instruction captured in the video, your decision making, and your reflection on the lesson after its completion. Be sure your video and Written Commentary are clearly connected and support one another.

Submission Requirements

Variety of Evidence. The two video recordings for Component 3 must be from different instructional units. The evidence submitted for Component 2 and Component 4 and one of the two video recordings submitted for Component 3 may be from the same unit of instruction, but must be from different lessons that have unique lesson goals and objectives—even if all evidence is drawn from a single instructional setting or class.

Time Frame for Activities and Evidence Collection. The period for evidence collection begins 12 months prior to the date of the opening of the ePortfolio submission window as described in the *Guide to National Board Certification*. If you submit your portfolio with one or more sections that feature a class and/or evidence that date from more than 12 months before the opening of the ePortfolio submission window, your component **will not be**

scorable and you will receive a code of NS on your score report instead of a numerical score.

Required Elements. As you prepare your portfolio, pay careful attention to the forms, information, and other evidence you are required to submit. It is your responsibility to make sure that your portfolio component materials are complete when they are submitted. You will not be notified of any missing materials. **You will not receive a score for this component if you do not submit any parts of the component or it is lacking critical materials** (e.g., Written Commentary, video). Even if your portfolio is missing a minor piece, bear in mind that assessors will have less information on which to base their evaluation of your work. The "[Component 3 Electronic Submission at a Glance](#)" chart later in this document summarizes all the pieces that you need to include and can help you check the completeness of your submission.

Formatting and Page/Time Limitations. You must also pay careful attention to the formatting guidelines and stated page and time limits for the various materials you submit. Assessors will only read up to the allowable page limit. Likewise, they will only view each video up to the stated time limit. Information on pages exceeding the maximum or on a video recording beyond the time limit **will not be considered in the scoring of your submission.**

Language other than English. Videos or other evidence submitted may include brief expressions or phrases in a language other than English. The inclusion of such expressions or phrases must be limited because assessors do not have fluency in languages other than English. If expressions or phrases in a language other than English that are important for an assessor to understand are included, you must include brief explanations of these expressions or phrases in the Written Commentary that accompanies your portfolio submission.

If you are submitting video evidence or other types of evidence (e.g., student work sample) in a language other than English, you must include a written English translation in the file with the sample. For a translation of a video, include the translation at the end of the Written Commentary. Include any necessary student identifiers (but do *not* include students' last names). Note that the pages of your translation do not count toward your page totals.

If you do not include a translation or explanation, language other than English will not be considered in the scoring of your submission (except brief non-English terms or phrases commonly used by English speakers). Your submission will be scored based on the portions in English and the translations/explanations you provide. It will be scored as zero if the scorable portions do not merit a score of 1 or higher.

Your Written Commentary must be written entirely in English in order to be considered for scoring.

Originality Requirements. It may be helpful to have a colleague review your work before you submit it. However, all of the work you submit as part of your response to this portfolio component must be yours and yours alone. The written analyses and other evidence you submit must feature teaching that you did and work that you oversaw. For more detailed information, see the ethics and collaboration section in the [General Portfolio Instructions](#) and the [National Board's ethics policy](#). If you submit materials and/or evidence which are in whole or in part substantially identical to those of another candidate, both of you could be disqualified from the certification process.

Accessing Forms for Submission

Refer to the "[Component 3 Forms](#)" section of this document for the forms you will need to submit your materials. Word-processing files of these forms are also available to download from www.nbpts.org/national-board-certification/candidate-center.

Planning and Selecting Instructional Materials

Writing about Planning

Complete the Instructional Planning Form (**no more than 1 single-spaced page for each video**, using 11-point Arial font).

Write a description (**no more than 2 double-spaced pages for each video**, using 11-point Arial font) of your instructional planning and decision making for promoting student learning in the context of the lesson featured in the video. In your description, be sure to address the following questions:

- *In the Instructional Context Sheet, you identified your students' characteristics. How did you use detailed knowledge of your students' backgrounds, needs, abilities, and interests and your knowledge of mathematics in your planning and choice of strategies? What are the instructional challenges represented by your students?*
- *How did the social and physical context you described influence your planning?*
- *What are your long-term instructional goals for this class, and why are these goals appropriate for these students?*
- *How do the instructional goals for this particular lesson fit into your long-term goals?*
- *What is your rationale for choosing the instructional format that you used to meet the goals of this lesson?*
- *What are your reasons for selecting the materials or resources you used?*

Selecting Instructional Materials

Include instructional materials that will help an assessor understand the lesson in the video recording (handouts, excerpts from teacher guides, instructions to students, etc.). You or your students may have used these materials before, during, or after the activity featured on the video recording.

How to Format and Submit Your Instructional Materials

- Complete a new Instructional Planning Form (**no more than 1 page each**) for each video (refer to the "[Component 3 Forms](#)" section of this document). Use single-spaced 11-point Arial font. Include the following after each form in your file for submission:
 - associated description of your instructional planning and strategies (**no more than 2 pages**); use double-spaced 11-point Arial font with 1" margins on all sides of an 8.5" × 11" page
 - one or more instructional materials (**no more than 3 pages total**)
- Place your candidate ID number on the Instructional Planning Form.
- Be sure that your instructional materials are legible and refer to people and places in ways that preserve anonymity. Follow the "Guidelines for Referring to People, Institutions, and Places" section in the *General Portfolio Instructions*.

- Format your instructional materials to fit onto an 8.5" × 11" page.
 - Do not reduce full-sized pages of instructional materials (e.g., handouts, documents created using a word processing program) to fit more than one instructional material onto a single 8.5" × 11" page. Do not use a smaller font or narrower margins in an attempt to fit in more information. **If content has been manipulated to fit, assessors will not read anything beyond the equivalent to the specified maximum length.**
 - If instructional materials contain Web pages, each 8.5" × 11" Web page print out or PDF counts as **1 page** toward your page total.
 - If instructional materials were created using presentation software (e.g., Google Slides, Microsoft PowerPoint), you may format up to six slides on one 8.5" × 11" page, which counts as **1 page** toward your page total. Be sure any text on the slides is large enough to be fully legible without magnification of the 8.5" × 11" page (original font size no smaller than 36 points) and that there is adequate spacing between text to allow assessors to easily read the slides.
 - If submitting smaller items (including photos and images, **but not text**), you may format up to six smaller items on one 8.5" × 11" page, which counts as **1 page** toward your page total. In determining the number of smaller items to include on a single page, keep in mind that each of the items must be large and clear enough for assessors to be able to view relevant details.
- If instructional materials that are important for assessors to see are impractical to submit or do not show up clearly in the video recording (e.g., slide projections, writing on a chalkboard or whiteboard, software, three-dimensional objects), submit a digitized drawing, image, or photograph of adequate size to be clearly visible without magnification, or a description/transcription of the material. If you submit a drawing, image, or photograph, be sure it is large enough to be legible on an 8.5" × 11" page. If you submit a description/transcription, it must be typed in double-spaced 11-point Arial font with 1" margins on all sides. The description/transcription will count as part of your page total.
- Submitted materials with illegible text or images too small to be clearly viewed will not be scored.
- Assessors will only read up to the allowable page limit. Pages exceeding the maximum will not be scored.

Refer to the "[Component 3 Electronic Submission at a Glance](#)" chart in this document for page totals for each piece of evidence and how to assemble instructional materials for submission.

Recording Your Videos

You may wish to record a number of different class periods so that you have several recordings from which to choose. Be sure to choose video recordings that give you an opportunity to discuss your practice. It is important to show how you create a positive learning environment, engage students, and facilitate students' learning.

Follow the guidelines in this section for each of your two video recordings:

- The two videos must feature different lessons and units of instruction.
- Each video must be made during a *single class period*.

- The lessons featured in the videos should be independent of one another and be able to stand alone as evidence of your teaching practice.
- The videos can be made using the same class of students or different classes of students.
- The videos should show as much of the class as possible, but it is acceptable to focus on a particular student while he or she is talking. Use a camera angle that includes as many faces of the students in the class as possible.
- You and your students must be seen and heard in both videos. It is important for assessors to be able to see and hear you and your students together, your students interacting with each other, your students' reactions to what you are doing, and their engagement in learning. Your portfolio component will not be scored if you fail to meet these requirements.
- If you do not receive permission to include a student or adult in a video, you must ensure that he/she is out of the camera's range and not heard.
- Scan the environment in which you plan to record your videos to avoid recording visual cues that reveal individuals' names, your school/facility name, or location.
- The contents of the two videos combined must represent different instructional formats **and** different teaching strategies.

You are not required to feature more than one instructional format or teaching strategy in a single video, although you may. You must be sure, however, that the combined contents of your two videos represent a breadth of the content area and show at least two different instructional formats and two different teaching strategies. For example, if you feature a large group format in one video, the second must present a different format, such as small group, one on one, or other appropriate configuration. Both videos must also showcase integration of domains of mathematics as appropriate to each lesson.

One of the two video recordings submitted for Component 3 and the evidence submitted for Component 2 and Component 4 may be from the same unit of instruction, but must be from different lessons that have unique lesson goals and objectives. Videos representing the same unit or lesson will limit the evidence that assessors will score.

Selecting the Class for Each Video

Choose the class to feature in each of your video recordings. Both videos may feature the same class of students, or you may feature a different class in each video. The featured class in each video must be a rostered class during the regular school day and year, not an after-school or summer-school class. Note that at least 51% of the students in the class that you use for each video must be within the stated age range for the certificate area during the period in which you collect evidence for your portfolio. If you do not adhere to the class composition requirements, your component **will not be scorable and you will receive a code of NS on your score report instead of a numerical score.**

Since your response will be considered on the basis of how you support students engaged in purposeful mathematics learning, the class you choose should provide the best opportunity to feature your practice. The focus is on your practice and your ability to facilitate student learning, not on the level of student achievement.

If you are in an administrative position or are in an assignment or teaching setting where you do not have a class of your own that matches the parameters of the certificate area in which you are seeking certification, you may borrow or guest teach another teacher's class or students in order to complete the portfolio component. Whether working with your own or another teacher's students, you will be expected to submit authentic materials that represent

your individual work. You must meet the time frames specified in these instructions. Your submission will be assessed in terms of the component tasks and the criteria defined by the rubric. Your work will be assessed with the same standards as the work of candidates who present work generated by their own students.

When collecting and submitting your evidence, remember to follow the "Guidelines for Referring to People, Institutions, and Places" section in the *General Portfolio Instructions*.

A signed release form is required for each student or adult who appears and/or speaks in the video recordings. It is your responsibility to keep these release forms on file indefinitely in the event a question arises regarding these permissions. In addition, National Board may request a copy of these forms as documentation for your portfolio component. The National Board release forms are available as PDF downloads from www.nbpts.org/national-board-certification/candidate-center. Do not submit the completed release forms with your evidence.

Selecting a Lesson for Each Video

Select a lesson for each video recording that provides opportunities for your students to engage in meaningful mathematics discourse. The lesson should show how you develop students' abilities to make connections among mathematical ideas and to apply these ideas to problem solving in mathematics, in other disciplines, and in the world outside of school. The objectives need not be advanced, but the lesson on which you are focusing should be one that is important for the students at their level of learning and one in which they are likely to be engaged in constructive and meaningful discourse.

As you determine which lesson to feature in each video, consider how you will provide evidence of the following aspects of your teaching practice. These observable actions are derived from the Mathematics Standards, to which you should refer for full guidance.

- Learning Environment
 - Establish a safe, fair, equitable, and challenging environment that promotes active student engagement in the activities and substance of mathematics instruction.
 - Create a student-centered learning environment based on trust and mutual respect.
 - Equip students with skills that support collaboration, such as the ability to ask thoughtful questions, listen to one another, and respond respectfully to others' ideas and mathematical arguments.
- Student Engagement
 - Foster the active engagement of students with the teacher and each other in sharing ideas, conversing purposefully, and listening attentively as they explore significant mathematics topics.
 - Design and implement opportunities for students to engage in self-directed learning and to engage in meaningful expression.
- Instruction
 - Integrate prior student knowledge with mathematical activities that are connected to learning goals; and sequence and structure instruction so that students can achieve the goals.
 - Support all students in developing the dispositions and proficiencies necessary to use mathematical reasoning, to solve problems, and to communicate and extend conclusions.

- Facilitate the inquiry process for students by delineating possible pathways for investigation and modeling the inquiry process.
- Use appropriate, rich, and thought-provoking instructional resources to engage students in learning important mathematics content.
- Monitor and evaluate student learning, make instructional adjustments as part of an ongoing process of assessment, and provide regular constructive feedback to students.

Video Editing and Audio Enhancement Rules

Submitting each video recording in a continuous and unedited format provides the most authentic representation of your teaching practice. However, each video recording may include **up to two edits** for the reasons listed below. The only allowable edits to the videos are for the following reasons:

- moving a whole class into a different physical instructional setting such as a lab, a gymnasium, or outdoors
- responding to safety drills
- changing the battery in the video camera

No other edits to the video recording(s) are allowed. Not allowable edits include, but are not limited to, creating an introduction, adding captions, or using features such as fade in/fade out that detract from an authentic presentation of your instructional setting. You may NOT make edits to your video to remove student or announcement disruptions or interruptions, individual/quiet student work time, transitioning from whole group to small group instruction or vice versa, moving among small groups in different locations, assessment time, etc. If a release form was not obtained from one or more students and/or adults, ensure that the individual(s) are not in camera view when recording your video(s); blurring their faces in the video is not an allowable edit.

If either of your video recordings includes one or two allowable edits for the reasons listed above, you **must** note the reason for each edit on the Instructional Planning Form. If you submit a video with more than two edits, only the portion prior to the third edit will be viewed and scored. If you submit a video that has an edit other than two of the allowable edits due to the reasons listed above, only the portion prior to the non-allowed edit will be viewed and scored.

Amplifying the sound to enhance the audio on a video is acceptable as long as the amplification of the audio does not conflict with the postproduction editing rules described above.

How to Format and Submit Your Videos

- Submit two video recordings of **10–15 minutes each**. If you submit longer video recordings, assessors will view only the first 15 minutes.
- If you edited your videos as allowed for only the reasons listed above, make sure each video includes no more than two edits. Assessors will view and score only the portion of the recordings prior to the third edit.
- If expressions or phrases in a language other than English that are important for an assessor to understand are included in your video, provide brief explanations of these expressions or phrases in the Written Commentary.

- If your video is in a language other than English, you must provide a written English translation that includes your candidate ID and any necessary student identifiers (but not students' names). Include the translation at the end of the file with your Written Commentary. Your translation does not count toward your page totals.
- Convert your video into a file format that meets electronic portfolio management system requirements: .flv, .asf, .qt, .mov, .mpg, .mpeg, .avi, .wmv, .mp4, and .m4v.
- Compress the size of your video file, if necessary. The recommended file size is 200 MB to 300 MB. Refer to the Video Conversion & Compression Guide at www.nbpts.org/national-board-certification/candidate-center to download free software with instructions.
- Play back your final file before uploading to ensure it can be viewed by assessors and to check the audio quality. You and your students must be seen and heard in both videos.

Refer to the "[Component 3 Electronic Submission at a Glance](#)" chart in this document for complete video submission requirements.

Composing Written Commentary

In this entry, you submit a Written Commentary on the instruction captured in the video and your decision making as well as your reflection on the lesson after its completion. When citing evidence, it is helpful to assessors if you identify specific locations in the video recording by describing specific dialogue, events, and/or students (e.g., "the girl in the green sweater in the second row"). In addition to a description, you may also provide a time-stamp reference to help assessors, if necessary.

How to Organize and Present Your Written Commentary

- Create a word-processing document to compose your Written Commentary.
- Address the italicized questions in the following section entitled "[What to Include in Your Written Commentary](#)."
- Refer to the "Writing about Teaching" section in the *General Portfolio Instructions* for advice on developing your Written Commentary and to see examples.
- When writing your Written Commentary, refer to people and places in ways that preserve anonymity. Follow the "Guidelines for Referring to People, Institutions, and Places" section in the *General Portfolio Instructions*.
- Place your candidate ID number in the upper right corner of the first page of your Written Commentary document.
- Use the following language and format specifications when writing your Written Commentary:
 - Write in English.
 - Use double-spaced 11-point Arial font.
 - Format 1-inch margins on all sides of the document, using an 8.5" × 11" page size.

Refer to the "[Component 3 Electronic Submission at a Glance](#)" chart in this document for complete submission requirements.

- Your Written Commentary will be scored based on its content; however, you should proofread your writing for spelling, mechanics, and usage.
- Submit a document for your Written Commentary of **no more than 4 double-spaced pages for each video**. If you submit a longer document, only the first 4 pages will be scored.

What to Include in Your Written Commentary

In your Written Commentary, be sure to address the following questions:

- *How did the pedagogical and instructional decisions you made during the lesson align with your planning?*
- *What specific approaches, strategies, techniques, or activities did you use to promote active student engagement in the lesson? Cite specific examples from the video recording.*
- *How did you establish a safe, fair, equitable, and challenging learning environment for all students?*
- *How did you monitor and assess student progress during the lesson and how did this influence your decision making during instruction? How was student feedback provided and what was your rationale for providing it in this manner?*
- *To what extent did you achieve the lesson's goal or goals? Provide evidence from the video recording to support your answer. What were your next steps with these students as a result?*
- *How was your approach to teaching this content to the students in this video influenced by past experience?*
- *What would you do differently, if anything, if you were to teach this particular lesson again to a similar group of students next year? If you would not change anything, explain why.*

Component 3 Electronic Submission at a Glance

Submit your evidence of accomplished teaching using the electronic portfolio management system (see the *Guide to Electronic Submission*). Use the following chart to determine how to group your evidence and submit it electronically. Forms are available as word-processing files for you to download from www.nbpts.org/national-board-certification/candidate-center as well as on the following pages of this document.

EA-AYA/Mathematics Component 3: Teaching Practice and Learning Environment				
What to Submit	Supported File Types	Number of Files to Submit	Response Length	Additional Information
Introduction to Entry Form (form provided)	docx, odt, or pdf	1	No more than 1 page	<ul style="list-style-type: none"> Use 11-point Arial font Single space
Instructional Context Sheet (form provided)	docx, odt, or pdf	1	Submit 1 file with no more than 1 page for each video—2 pages total	<ul style="list-style-type: none"> Use 11-point Arial font Single space Combine both sheets in a single file for submission.
Videos	flv, asf, qt, mov, mpg, mpeg, avi, wmv, mp4, or m4v	2	Running time 10–15 minutes each	<ul style="list-style-type: none"> A signed release form is required for each student or adult who appears and/or speaks in the video recordings. Refer to the “Recording Your Videos” section of this document for video content and requirements. When naming each file, include “Video 1” and “Video 2,” as appropriate.
Instructional Planning Form and Materials (form provided)	docx, odt, or pdf	2	Submit 1 file for each video. In each file, include: <ul style="list-style-type: none"> Instructional Planning Form, no more than 1 single-spaced page Description of instructional planning and strategies, no more than 2 double-spaced pages with 1” margins on all sides Instructional materials: one or more items, no more than 3 pages total 	<ul style="list-style-type: none"> Use 11-point Arial font When naming each file, include “Video 1” and “Video 2,” as appropriate. Describe reasons for 1–2 allowable edits, if edits were made.
Written Commentary	docx, odt, or pdf	2	Submit 1 file for each video, no more than 4 pages each	<ul style="list-style-type: none"> Use 11-point Arial font Double space with 1” margins on all sides When naming each file, include “Video 1” and “Video 2,” as appropriate.

Release forms are available as PDF downloads from www.nbpts.org/national-board-certification/candidate-center. **Retain completed release forms for your records; do not submit them with your evidence.**

Component 3 Forms

This section contains the forms required for Component 3. You must download the word-processing files available at www.nbpts.org/national-board-certification/candidate-center, fill them out electronically, and then upload the electronic file or scanned image with any associated evidence to the electronic portfolio management system.

As you complete these forms, do not delete or alter any original text (including the header, footer, title, directions, and prompts) to gain more space to write your responses. Both the original text and your responses are included in the total page count allowed. Pages exceeding the maximum will not be scored.

As you prepare your portfolio, keep in mind some forms contain directions that are not repeated elsewhere; follow these directions carefully.

A signed release form is required for each student or adult who appears and/or speaks in the video recordings. These release forms are available as PDF downloads from www.nbpts.org/national-board-certification/candidate-center.

Remember, all last names on student work samples **must be redacted**. Do **not** leave personally identifiable information on any documents you submit.

Introduction to Entry Form

Directions: Respond to the prompts below (**no more than 1 single-spaced page in Arial 11-point font**) by typing your responses within the brackets following each prompt. Do not delete or alter any original text on this form (including the header, footer, title, directions, and prompts); both the original text and your responses are included in the total page count allowed. Pages exceeding the maximum will not be scored.

Candidate ID#: []

1. Provide a brief overview of your entire entry.

[]

2. Describe the focus of Video 1 and your rationale for including this video in your portfolio submission.

[]

3. Describe the focus of Video 2 and your rationale for including this video in your portfolio submission.

[]

Instructional Planning Form

For each video, follow the directions below. Pages exceeding the maximums indicated will not be scored.

1. Respond to the prompts below (**no more than 1 single-spaced page in Arial 11-point font**) by typing your responses within the brackets following each prompt. Do not delete or alter any original text on this form (including the header, footer, title, directions, and prompts); both the original text and your responses are included in the total page count allowed.
2. Include a description of your instructional planning and strategies (**no more than 2 double-spaced pages in 11-point Arial font with 1" margins on all sides**) and rationales for your choice of goals, strategies, and materials. **Use the questions in “Writing about Planning” to guide your description.**
3. Include **no more than 3 pages** of instructional materials with this form.

Video #: []

Candidate ID#: []

1. Indicate the unit of instruction.

[]

2. Indicate the instructional goals for the unit.

[]

3. Indicate the goals for the lesson featured in the video.

[]

4. Indicate the instructional format chosen for the lesson.

[]

5. Describe the materials or resources used in the lesson.

[]

6. If this video contains 1–2 allowable edits, you must describe the reasons for these edits.

[]

Scoring Rubric for EA–AYA/Mathematics Component 3

Level 4

The **LEVEL 4** performance provides *clear, consistent, and convincing* evidence that the teacher is able to establish a safe, fair, equitable, and challenging environment that fosters the active engagement of students with the teacher and with each other in sharing ideas and in exploring significant mathematics topics, effectively integrating prior student knowledge with mathematical activities that are connected to learning goals.

The Level 4 performance provides *clear, consistent, and convincing* evidence:

- that the teacher has established a safe, fair, equitable, and challenging environment that promotes self-directed learning and active student engagement with the teacher and other students in sharing ideas, conversing purposefully, and listening attentively during activities as students explore topics of substance.
- that the teacher skillfully creates a student-centered learning environment based on trust and mutual respect, facilitates the inquiry process, and equips students with skills that support collaboration, such as the ability to ask thoughtful questions, respond respectfully to others' ideas, build consensus, compromise, negotiate, and accept ambiguity.
- that the teacher monitors and evaluates student learning, makes instructional adjustments as part of an ongoing process of assessment, and provides regular constructive feedback to students.
- that the teacher effectively supports all students in developing the dispositions and proficiencies necessary to use mathematical reasoning, to solve problems, and to communicate purposefully and extend conclusions.
- that the teacher integrates prior student knowledge with mathematical activities that are connected to the learning goals, and sequences and structures instruction so that students can achieve the goals.
- that the teacher draws on detailed knowledge of students' backgrounds, needs, abilities, and interests, and on her or his own knowledge of mathematics in selecting high, worthwhile, and attainable goals and in selecting appropriate, rich, and thought-provoking instructional resources and approaches that support these goals.
- that the teacher communicates persuasively about the pedagogical decisions made before, during, and after instruction; describes her or his practice accurately; analyzes it fully and thoughtfully; reflects insightfully on its implications for future teaching; and strategically seeks ways to improve practice to promote student learning.

Overall, there is *clear, consistent, and convincing* evidence of establishing a safe, fair, equitable, and challenging environment that fosters the active engagement of students with the teacher and with each other in sharing ideas and in exploring significant mathematics topics, effectively integrating prior student knowledge with mathematical activities that are connected to learning goals.

Level 3

The **LEVEL 3** performance provides *clear* evidence that the teacher is able to establish a safe, fair, equitable, and challenging environment that fosters the active engagement of students with the teacher and with each other in sharing ideas and in exploring significant mathematics topics, effectively integrating prior student knowledge with mathematical activities that are connected to learning goals.

The Level 3 performance provides *clear* evidence:

- that the teacher has established a safe, fair, equitable, and challenging environment that promotes self-directed learning and active student engagement with the teacher and other students in sharing ideas, conversing purposefully, and listening attentively during activities as students explore topics of substance.
- that the teacher creates a student-centered learning environment based on trust and mutual respect, facilitates the inquiry process, and equips students with skills that support collaboration, such as the ability to ask thoughtful questions, respond respectfully to others' ideas, build consensus, compromise, negotiate, and accept ambiguity.
- that the teacher monitors and evaluates student learning, makes instructional adjustments as part of an ongoing process of assessment, and provides regular constructive feedback to students.
- that the teacher supports all students in developing the dispositions and proficiencies necessary to use mathematical reasoning, to solve problems, and to communicate purposefully and extend conclusions.
- that the teacher integrates prior student knowledge with mathematical activities that are connected to the learning goals, and sequences and structures instruction so that students can achieve the goals. However, there may be minor lapses in sequencing or some awkwardness in integration.
- that the teacher draws on knowledge of students' backgrounds, needs, abilities, and interests, and on her or his own knowledge of mathematics in selecting high, worthwhile, and attainable goals and in selecting appropriate, thought-provoking instructional resources and approaches that support these goals.
- that the teacher communicates effectively about the pedagogical decisions made before, during, and after instruction; describes her or his practice accurately; analyzes it fully; reflects on its implications for future teaching; and strategically seeks ways to improve practice to promote student learning.

Overall, there is *clear* evidence of establishing a safe, fair, equitable, and challenging environment that fosters the active engagement of students with the teacher and with each other in sharing ideas and in exploring significant mathematics topics, effectively integrating prior student knowledge with mathematical activities that are connected to learning goals.

Level 2

The **LEVEL 2** performance provides *limited* evidence that the teacher is able to establish a safe, fair, equitable, and challenging environment that fosters the active engagement of students with the teacher and with each other in sharing ideas and in exploring significant mathematics topics, effectively integrating prior student knowledge with mathematical activities that are connected to learning goals.

The Level 2 performance provides *limited* evidence:

- that the teacher has established a safe, fair, equitable, and challenging environment that promotes self-directed learning and student engagement with the teacher and other students in sharing ideas, conversing, and listening during activities as students explore topics of substance.
- that the teacher creates a student-centered learning environment, facilitates the inquiry process, and equips students with skills that support collaboration, such as the ability to ask thoughtful questions, respond respectfully to others' ideas, build consensus, compromise, negotiate, and accept ambiguity.
- that the teacher competently monitors and evaluates student learning, makes instructional adjustments as part of an ongoing process of assessment, and provides regular feedback to students.
- that the teacher supports students in developing the dispositions and proficiencies necessary to use mathematical reasoning, to solve problems, and to communicate and extend conclusions.
- that the teacher sufficiently integrates prior student knowledge with mathematical activities that are connected to the learning goals, and sequences and structures instruction so that students can achieve the goals.
- that the teacher draws on knowledge of students' backgrounds, needs, abilities, and interests, and on her or his own knowledge of mathematics in selecting goals and in selecting appropriate instructional resources and approaches that support these goals.
- that the teacher communicates adequately about the pedagogical decisions made before, during, and after instruction; describes her or his practice accurately; analyzes it; reflects on its implications for future teaching; and seeks ways to improve practice to promote student learning.

Overall, there is *limited* evidence of establishing a safe, fair, equitable, and challenging environment that fosters the active engagement of students with the teacher and with each other in sharing ideas and in exploring significant mathematics topics, effectively integrating prior student knowledge with mathematical activities that are connected to learning goals.

Level 1

The **LEVEL 1** performance provides *little or no* evidence that the teacher is able to establish a safe, fair, equitable, and challenging environment that fosters the active engagement of students with the teacher and with each other in sharing ideas and in exploring significant mathematics topics, effectively integrating prior student knowledge with mathematical activities that are connected to learning goals.

The Level 1 performance provides *little or no* evidence:

- that the teacher has established a safe, fair, equitable, and challenging environment that promotes self-directed learning and student engagement with the teacher and other students in sharing ideas, conversing, and listening during activities as students explore topics.
- that the teacher creates a student-centered learning environment, facilitates the inquiry process, and equips students with skills that support collaboration, such as the ability to ask thoughtful questions, respond respectfully to others' ideas, build consensus, compromise, negotiate, and accept ambiguity.
- that the teacher competently monitors and evaluates student learning, makes instructional adjustments as part of an ongoing process of assessment, and provides regular feedback to students.
- that the teacher supports students in developing the dispositions and proficiencies necessary to use mathematical reasoning, to investigate and explore patterns, to discover mathematical structures and relationships, to solve problems, and to communicate and extend conclusions.
- that the teacher sufficiently integrates prior student knowledge with mathematical activities that are connected to the learning goals, and sequences and structures instruction so that students can achieve the goals.
- that the teacher draws on knowledge of students' backgrounds, needs, abilities, and interests, and on her or his own knowledge of mathematics in selecting goals and in selecting appropriate instructional resources or approaches that support these goals.
- that the teacher communicates adequately about the pedagogical decisions made before, during, and after instruction; describes her or his practice accurately; analyzes it; reflects on its implications for future teaching; and seeks ways to improve practice to promote student learning.

Overall, there is *little or no* evidence of establishing a safe, fair, equitable, and challenging environment that fosters the active engagement of students with the teacher and with each other in sharing ideas and in exploring significant mathematics topics, effectively integrating prior student knowledge with mathematical activities that are connected to learning goals.

Produced for

NATIONAL BOARD

for Professional Teaching Standards®

by



Pearson

© 2020 National Board for Professional Teaching Standards. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording, or any information storage or retrieval system, without permission in writing from the publisher.

The National Board for Professional Teaching Standards logo, National Board for Professional Teaching Standards, NBPTS, National Board Certified Teacher, NBCT, National Board Certification, Accomplished Teacher, Profile of Professional Growth, and ATLAS Accomplished Teaching, Learning and Schools are registered trademarks or service marks of the National Board for Professional Teaching Standards. Other marks are trademarks or registered trademarks of their respective organizations.

The National Board for Professional Teaching Standards, Inc. has been funded in part with grants from the U.S. Department of Education and the Bill & Melinda Gates Foundation. The contents of this publication do not necessarily represent the policy of the U.S. Department of Education or the Bill & Melinda Gates Foundation, and you should not assume endorsement by the Federal Government or the Bill & Melinda Gates Foundation. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the sponsors.

Prepared by Pearson for submission under contract with the National Board for Professional Teaching Standards®.

Pearson and its logo are trademarks, in the U.S. and/or other countries, of Pearson Education, Inc. or its affiliate(s).

Instructional Context Sheet

Directions: For each video, respond to the prompts below (**no more than 1 single-spaced page in Arial 11-point font**) by typing your responses within the brackets following each prompt. Do not delete or alter any original text on this form (including the header, footer, title, directions, and prompts); both the original text and your responses are included in the total page count allowed. Pages exceeding the maximum will not be scored. Please spell out the first occurrence of acronyms.

Video #: []

Candidate ID#: []

1. Briefly identify the **type of school/program** in which you teach and the **grade/subject configuration** (single grade, departmentalized, interdisciplinary teams, etc.).
[]
2. With regard to your own teaching situation, briefly identify.
Grades Taught: [] Age Levels: []
Number of Students Taught Daily: [] Average Number of Students in Each Class: []
Courses Taught: []
3. What information about your teaching context do you believe would be important for assessors to know to understand your portfolio entry? Be brief and specific.
Note: You might include details of any state and/or district mandates as well as information regarding staff, scheduling of classes, available space, and access to current technology.
[]
4. Identify the number, ages, and grades of students in the class featured in this video and the subject matter of the class.
[]
5. Describe the relevant characteristics of this class that influenced your instructional planning, format, and strategies for this lesson (e.g., ethnic, cultural, and linguistic diversity; the range of abilities of the students; the cognitive, social/behavioral, attentional, sensory, and/or physical challenges of students with exceptional needs; the personality of the class).
[]

Instructional Planning Form

For each video, follow the directions below. Pages exceeding the maximums indicated will not be scored.

1. Respond to the prompts below (**no more than 1 single-spaced page in Arial 11-point font**) by typing your responses within the brackets following each prompt. Do not delete or alter any original text on this form (including the header, footer, title, directions, and prompts); both the original text and your responses are included in the total page count allowed.
2. Include a description of your instructional planning and strategies (**no more than 2 double-spaced pages in 11-point Arial font with 1" margins on all sides**) and rationales for your choice of goals, strategies, and materials. **Use the questions in "Writing about Planning" to guide your description.**
3. Include **no more than 3 pages** of instructional materials with this form.

Video #: []

Candidate ID#: []

1. Indicate the unit of instruction.

[]

2. Indicate the instructional goals for the unit.

[]

3. Indicate the goals for the lesson featured in the video.

[]

4. Indicate the instructional format chosen for the lesson.

[]

5. Describe the materials or resources used in the lesson.

[]

6. If this video contains 1–2 allowable edits, you must describe the reasons for these edits.

[]

Introduction to Entry Form

Directions: Respond to the prompts below (**no more than 1 single-spaced page in Arial 11-point font**) by typing your responses within the brackets following each prompt. Do not delete or alter any original text on this form (including the header, footer, title, directions, and prompts); both the original text and your responses are included in the total page count allowed. Pages exceeding the maximum will not be scored.

Candidate ID#: []

1. Provide a brief overview of your entire entry.

[]

2. Describe the focus of Video 1 and your rationale for including this video in your portfolio submission.

[]

3. Describe the focus of Video 2 and your rationale for including this video in your portfolio submission.

[]



Component 4

*Early Adolescence–
Adolescence and Young
Adulthood/Mathematics*

**Component 4:
Effective and
Reflective
Practitioner**

**PORTFOLIO INSTRUCTIONS
AND SCORING RUBRIC**

NATIONAL BOARD
for Professional Teaching Standards®

Contents

Overview	1
Component 4: Effective and Reflective Practitioner.....	1
EA–AYA/Mathematics Component 4 Portfolio Entry.....	1
Inside This Document	2
Portfolio Instructions for EA–AYA/Mathematics Component 4	4
What Do I Need to Do?	4
Selecting the Groups of Students.....	7
Knowledge of Students.....	8
Generation and Use of Assessment Data.....	9
Participation in Learning Communities.....	12
Written Commentary	13
Component 4 Electronic Submission at a Glance	17
Component 4 Forms	18
Scoring Rubric for EA–AYA/Mathematics Component 4	25
Level 4	25
Level 3	26
Level 2	27
Level 1	28

Overview

This document provides information about the Early Adolescence–Adolescence and Young Adulthood/Mathematics (EA–AYA/Mathematics) Component 4: Effective and Reflective Practitioner portfolio entry, instructions on how to develop and submit your evidence, and the scoring rubric used to assess your work.

Component 4: Effective and Reflective Practitioner

This portfolio entry provides you with the opportunity to highlight your abilities as an effective and reflective practitioner in developing and applying your knowledge of your students. You will gather information from a variety of sources about a class of students; use assessments to effectively plan for and positively impact your students' learning; and provide evidence of your collaboration with families and caregivers, the community, and colleagues and of your contributions to learning communities to advance students' learning and growth. The types of information you submit, the sources of that information, and how you use it will be specific to your subject area and the unique characteristics of your students, school, district, and community. This portfolio entry and the rubric used to assess your submission align with the Five Core Propositions and the certificate area Standards. Remember to refer to the Standards for a complete understanding of the characteristics and expectations of accomplished teaching in your certificate area.

EA–AYA/Mathematics Component 4 Portfolio Entry

In the EA–AYA/Mathematics Component 4: Effective and Reflective Practitioner portfolio entry:

- You provide a profile, or description, of one group of students you select from the current school year. For Mathematics, one entire class will constitute your group. The group profile will be developed from and supported by information you collect about the students in the class.
- You provide evidence that you collect relevant information about your group of students from data sources and through communications with people who know your students well. This evidence proves that you base assessment practices on your knowledge of the students and understanding of sound assessment principles, including assessment purpose, validity, and fairness. You show that you use assessments, the information gained from assessments, and other data sources to positively impact these students' learning. You must link the assessment data to your practice; be specific about how the data you submit provides support for what you do in the classroom.
- You submit evidence that you use accumulated knowledge about students from the current year and/or previous school year to analyze the effectiveness of your own practice and to initiate or contribute to collaborative efforts in the school, district, community, or other learning communities designed to support students' learning and growth. See later in these instructions for more details about allowable time frames for collecting information and evidence for this section of the portfolio entry.
- You reflect on your practice of gathering and using information about students and how you can best contribute to positive changes for students and your practice in the future.

EA–AYA/Mathematics Standards Measured by Component 4

Because the purpose of the tasks in the portfolio entries is to measure your teaching practice, the overall focus of the portfolio entries and rubrics is on your knowledge and skills related to gathering and using relevant information, and how successfully you apply your knowledge and skills to advance student learning.

The portfolio entry for this component, Effective and Reflective Practitioner, measures the following EA–AYA/Mathematics Standards, and your submission will be evaluated based on these standards through the scoring rubric.

- I. Commitment to Mathematics Learning of All Students
- III. Knowledge of Students
- IV. Knowledge of the Practice of Teaching
- VII. Assessment
- VIII. Reflection and Growth
- IX. Families and Communities
- X. Professional Community

For the complete Mathematics Standards, refer to **www.nbpts.org/national-board-certification/candidate-center**.

The EA–AYA/Mathematics Component 4 scoring rubric defines the level of accomplished teaching that you must demonstrate. The wording in the rubric reflects levels of performance within the Component 4 tasks.

You should read the Standards and the rubric while developing your portfolio entry to understand how the rubric guides assessors in evaluating your work.

Inside This Document

This document includes the following two sections: "[Portfolio Instructions for EA–AYA/Mathematics Component 4](#)," which describes how to develop and submit your evidence, and "[Scoring Rubric for EA–AYA/Mathematics Component 4](#)," which provides the scoring rubric used to assess your work.

Portfolio Instructions

The EA–AYA/Mathematics Component 4 portfolio instructions provide the following:

- Directions for developing and submitting your evidence of accomplished teaching.
- Forms required for this entry. As you prepare your portfolio, keep in mind some forms contain directions that are not repeated elsewhere; **follow these directions carefully**.
- An **Electronic Submission at a Glance** chart listing the materials you collect and/or prepare as well as the release forms to keep for your records, as applicable. Submitting complete and appropriate materials is essential for proper scoring of your portfolio entry.

For general information about developing and submitting your materials, refer to the *General Portfolio Instructions* available at **www.nbpts.org/national-board-certification/candidate-center**.

For instructions on using the electronic portfolio management system to submit your materials, review the tips, tools, and tutorials and the *Guide to Electronic Submission* at **www.nbpts.org/national-board-certification/candidate-center**.

Scoring Rubric

The EA–AYA/Mathematics Component 4 scoring rubric is provided to assist you in understanding how your portfolio materials will be assessed. For more information about understanding and interpreting your scores, please refer to the *Scoring Guide* available at **www.nbpts.org/national-board-certification/candidate-center**.

Portfolio Instructions for EA–AYA/Mathematics

Component 4

This section contains the directions for developing and submitting the Component 4 EA–AYA/Mathematics portfolio entry and assembling it for submission. Entry directions include

- suggestions for planning your portfolio entry and choosing evidence of your teaching practice;
- an explanation of how to format, assemble, and submit your portfolio entry;
- questions that must be answered as part of your submission.

Before beginning to work on this portfolio entry, read the following directions for developing each element.

What Do I Need to Do?

This portfolio entry captures your abilities as an effective and reflective practitioner in developing knowledge of your students and then applying that knowledge to advance students' learning and growth. You will show that you base instructional decisions and assessment practices on your knowledge of the students gained from your collaboration with the learning communities as well as your understanding of sound assessment principles. You will demonstrate this understanding through examples of assessments used for formative and summative purposes. You will provide evidence that you use assessments, the information gained from assessments, and other data sources to positively impact the students' learning.

In this entry, you

- describe or build a group profile of a class of students by collecting relevant information from families and caregivers, the community, colleagues, and other sources;
- demonstrate that the assessment choices you make in an instructional unit are based on the knowledge of the students that you gain from your collaboration with multiple sources, the learning objectives of the unit, your understanding of sound assessment principles and practices, and how the information is used to effectively plan for and make a positive impact on student learning;
- use your cumulative knowledge of students to analyze and reflect on the effectiveness of your assessment practices and how best to positively impact student learning;
- reflect on your practice to determine a professional learning need and a student need for which you have provided advocacy, collaboration, and/or leadership that positively impacted student learning.

What Do I Need to Submit?

For this entry, you must submit the forms and evidence described in this section. Refer to the specific sections for each part of the portfolio and the “[Component 4 Electronic Submission at a Glance](#)” chart later in this document for detailed instructions about organizing and formatting your materials and page limits.

- **Contextual Information.** Submit a completed **Contextual Information Sheet (no more than 1 page)** that describes the broader context in which you teach. You will identify the type of school/program in which you teach, the grade/subject configuration, and the number of students and courses you teach. Include, as well, information necessary to understand your portfolio entry and any significant information about space, staff, access to technology, and/or other constraints.
- **Knowledge of Students.** Select one class of students as the focus for both the Knowledge of Students and the Generation and Use of Assessment Data sections of this portfolio entry. Submit a completed **Group Information and Profile Form (no more than 2 pages)** and associated evidence (**no more than 2 pages**).
- **Generation and Use of Assessment Data.** Select two assessments—one **formative** and one **summative**—to use in this portfolio entry. Submit the following forms that describe these assessment materials:
 - a completed **Instructional Context Form (no more than 1 page)**
 - a completed **Formative Assessment Materials Form (no more than 2 pages)** and associated evidence, including the assessment or a description of it (**no more than 2 pages**), results from the assessment (**no more than 2 pages**), and student self-assessments (**no more than 3 pages**)
Self-assessments from 3 different students (**no more than 3 pages combined**) **must** be included with the Formative Assessment Materials Form. The students’ self-assessments used must reflect a process by which the students monitor and evaluate their learning as well as identify ways to improve performance and understanding.
 - a completed **Summative Assessment Materials Form (no more than 1 page)** and associated evidence, including the assessment or a description of it (**no more than 2 pages**) and results from the assessment (**no more than 2 pages**)
- **Participation in Learning Communities.** Describe a professional learning need and a student need that you have met by working collaboratively with colleagues or about which you have shared your expertise in a leadership role with the larger learning community. The needs may be based on the same class of students on which the group profile is based, based on an earlier group of students with whom you worked, or from the broader learning community. The learning community may range from the classes you teach to your department, school, or district and may include your own students, the larger student body of your school or district, other teachers, administrators, school service personnel, and families. The needs must have been identified and actions taken to address them **no more than 24 months prior to the opening of the ePortfolio submission window**. However, evidence of the impact on student learning of the actions taken to address the needs must be drawn from no more than **12 months prior to the opening of the ePortfolio submission window**.

Submit the following forms that describe these needs:

- a completed **Description of Professional Learning Need Form (no more than 1 page)** and associated evidence (**no more than 2 pages**)
- a completed **Description of a Student Need Form (no more than 1 page)** and associated evidence (**no more than 2 pages**)

When selecting your activities, consider the following categories of involvement:

- teacher as learner
- teacher as advocate, collaborator, and/or leader
- **Written Commentary.** Write a commentary (**no more than 12 pages**) on your practice of gathering and using information about students and how you contribute to positive changes for students.

Submission Requirements

Variety of Evidence. The evidence submitted for Component 2 and Component 4 and one of the two video recordings submitted for Component 3 may be from the same unit of instruction, but must be from different lessons that have unique lesson goals and objectives—even if all evidence is drawn from a single instructional setting or class. The individual students whose work is featured and any assessments and/or examples of student work submitted for Component 2 must be different from those submitted for Component 4.

Time Frame for Activities and Evidence Collection. For the “[Knowledge of Students](#)” and “[Generation and Use of Assessment Data](#)” sections, the period for evidence collection is the 12 months prior to the date of the opening of the ePortfolio submission window as described in the *Guide to National Board Certification*.

In the “[Participation in Learning Communities](#)” section, identification of a professional learning need and a student need and related professional learning/collaboration may occur up to 24 months prior to the date of the opening of the ePortfolio submission window. Evidence of the impact of that professional learning/collaboration on student learning must be no older than the 12 months preceding the ePortfolio submission window. If you submit your portfolio with one or more sections that feature a class, an assessment, a need, and/or evidence that is older than the time frames described above, that response will be considered inappropriate and **will be treated as missing material** during scoring.

Required Elements. As you prepare your portfolio, pay careful attention to the forms, information, work samples, and other evidence you are required to submit. It is your responsibility to make sure that your portfolio component materials are complete when they are submitted. You will not be notified of any missing materials. **You will not receive a score for this component if you do not submit any parts of the component or it is lacking critical materials** (e.g., Written Commentary, assessment materials). Even if your portfolio is missing a minor piece, bear in mind that assessors will have less information on which to base their evaluation of your work. The “[Component 4 Electronic Submission at a Glance](#)” chart later in this document summarizes all the pieces that you need to include and can help you check the completeness of your submission.

Formatting and Page Limitations. You must also pay careful attention to the formatting guidelines and stated page limits for the various materials you submit. Assessors will only read up to the allowable page limit. Information on pages exceeding the maximum **will not be considered in the scoring of your submission**.

Language other than English. Assessments, students’ self-assessments, or other evidence submitted may include brief expressions or phrases in a language other than English. The inclusion of such expressions or phrases must be limited because assessors do not have fluency in languages other than English. If expressions or phrases in a language other than English that are important for an assessor to understand are included, you must include brief explanations of these expressions or phrases in the Written Commentary that accompanies your portfolio submission.

If you are submitting an assessment or student self-assessment in a language other than English, you must include a written English translation in the file with the sample. For a translation of a student self-assessment, label the translation (e.g., “Translation of Student 1’s Self-Assessment”) and include any necessary student identifiers (but do *not* include students’ last names). Note that the pages of your translation do not count toward your page totals.

If you do not include a translation or explanation, language other than English will not be considered in the scoring of your submission (except brief non-English terms or phrases commonly used by English speakers). Your submission will be scored based on the portions in English and the translations/explanations you provide. It will be scored as zero if the scorable portions do not merit a score of 1 or higher.

Your Written Commentary must be written entirely in English in order to be considered for scoring.

Originality Requirements. It may be helpful to have a colleague review your work before you submit it. However, all of the work you submit as part of your response to this portfolio component must be yours and yours alone. The written analyses and other evidence you submit must feature teaching that you did and work that you oversaw. For more detailed information, see the ethics and collaboration section in the [General Portfolio Instructions](#) and the [National Board’s ethics policy](#). If you submit materials and/or evidence which are in whole or in part substantially identical to those of another candidate, both of you could be disqualified from the certification process.

Accessing Forms for Submission

Refer to the “[Component 4 Forms](#)” section of this document for the forms you will need to submit your materials. Word-processing files of these forms are also available to download from www.nbpts.org/national-board-certification/candidate-center.

Selecting the Groups of Students

For the Group Profile

Choose one entire class of students for which you will develop a group profile or description. If you teach multiple classes, do **not** combine information from different classes for the group profile. The featured class must be a rostered class during the regular school day and year, not an after-school or summer-school class. Note that at least 51% of the students in the class that you use to complete Component 4 must be within the stated age range for the certificate area during the period in which you collect evidence for your portfolio. If you do not adhere to the class composition requirements, you will **receive a not scorable (NS) for the component on your score report**.

For the profile, the students must be your students during the current school year or have been within the 12 months preceding your submission. Your response will be considered on the basis of how you develop knowledge of your students through collaboration with families and caregivers, the community, colleagues, and other professionals; analysis of data you gather; and your use of that knowledge to make appropriate assessment choices and to use assessment to improve student learning.

Provide a profile or description of the class of students you selected to feature in this portfolio entry based on the information you gathered. Include relevant characteristics of the **entire**

class that will help others “see” the students as a group of learners who will benefit from the information gathered.

The focus is on your knowledge of the students, your collaboration with others as you gain and make decisions based on that knowledge, and assessment—not on the level of student achievement.

If you are in an administrative position or are in an assignment or teaching setting where you do not have a class of your own that matches the parameters of the certificate area in which you are seeking certification, you may borrow another teacher’s class or students in order to complete the portfolio component. Whether working with your own or another teacher’s students, you will be expected to submit authentic materials that represent your individual work. You must meet the time frames specified in these instructions. Your submission will be assessed in terms of the component tasks and the criteria defined by the rubric. Your work will be assessed with the same standards as the work of candidates who present work generated by their own students.

For Generation and Use of Assessment Data

Use assessment data from the same class for which you have developed the group profile. Use assessments that are appropriate in the context of the instructional unit and for the students in this class, and that produce accurate and reliable results that contribute to these students’ learning.

For Participation in Learning Communities

When selecting a group of students for this portion of the portfolio entry, the student needs you consider must come from those identified from your current students and/or needs identified up to two years (24 months) preceding your submission of this portfolio entry. Any professional learning, advocacy, or collaborative activities must have taken place in the current or previous school year (up to 24 months), with **evidence** of the impact of those activities coming from the current school year.

Knowledge of Students

For the class of students you selected as the focus for the Knowledge of Students and Generation and Use of Assessment Data sections of this portfolio entry, you will submit a completed **Group Information and Profile Form (no more than 2 pages)**. Write the following on this form:

- a description of the information about the class of students you collected from multiple sources and how you collected it; for example:
 - collecting and analyzing student assessment data or other school data from previous years
 - collecting observational data
 - obtaining relevant information from families and caregivers and other school or professional personnel who have worked with these students or similar groups of students
 - exploring community resources for factors that may affect the school and your students
- a detailed profile or description of the entire class you selected to feature in this portfolio entry based on the information you gathered:

- Include what you know about this group of students as learners and what affects your instructional decisions.
- Identify areas that may require future information gathering.
- Include relevant characteristics of the group that will help others “see” the class and understand your instructional and assessment decision making.

Show that you gathered information from **at least two** of the following sources: families, colleagues, professionals in the district or in the field, and/or other community members. In the file **with** the completed **Group Information and Profile Form**, you must include **no more than 2 pages** of evidence; for example:

- progress charting
- email records
- ongoing notes
- other appropriate methods of sharing information

Generation and Use of Assessment Data

Select a unit and learning objectives that provide opportunities to use assessments for formative and summative purposes with the same class of students for which you have developed the group profile. Use assessments that are appropriate in the context of the instructional unit and for the students in this class, and that produce accurate and reliable results that contribute to these students’ learning.

You will need to submit information and materials associated with one formative use of assessment and one summative use of assessment. For each type, you may feature either an assessment you created yourself or a ready-made assessment (published, purchased, copyrighted, and/or secure) that you have selected.

While you may feature a ready-made assessment, do not **submit** a copy of a ready-made assessment (in whole or in part) that is copyrighted or otherwise restricted for test security reasons (e.g., many statewide assessments expressly prohibit the disclosure or sharing of the contents of an assessment).

Select two assessments—**one formative** and **one summative**—to use in this portfolio entry. You will submit the following forms that describe these assessment materials:

- a completed **Instructional Context Form (no more than 1 page)** on which you will describe the following:
 - the unit plan
 - the unit objectives
 - why the selected assessments are appropriate for the students and the unit objectives
- a completed **Formative Assessment Materials Form (no more than 2 pages)** and a completed **Summative Assessment Materials Form (no more than 1 page)**. You will submit one file for each assessment form and its corresponding materials, for a total of two files. See important information below about the page limits for these forms. On each form, describe the following:
 - the assessment that you used
 - how the purpose of assessment aligns with learning objectives and how the assessment results support your teaching practice

- why this assessment is appropriate for the class of students featured in the group profile
- how the assessment was developed or selected
- how it was administered and scored
- how the results are intended to be used

In each file with the completed assessment materials form, include the following:

- **the assessment** if it is teacher-made (**no more than 2 pages per assessment**); do **not** include a copy of a copyrighted or secure ready-made assessment, but instead provide a description of the assessment and its purpose (**no more than 2 pages per assessment**). If you are including the assessment and it is more than **2 pages**, you may select which pages to submit. Consider selecting pages that show different types of assessment questions or activities.
- **data or other results** from the assessment that illustrate patterns, trends, or outliers in students' responses or performance (**no more than 2 pages per assessment**). The assessment results must include results for the **entire** class of students in your profile, not a subset of students. Consider the best way to represent the results to allow for effective and accurate analysis of the outcomes.
- for the formative assessment only, **examples of the use of self-assessment by 3 different students** as part of the assessment process (**no more than 3 pages combined**); for example:
 - student self-evaluation using a rubric or checklist
 - transcript of a conversation between students or between a student and the educatorWhile the students' self-assessments may be tied to the submitted formative assessment, they are not required to be. The examples should, however, reflect the use of self-assessment for formative purposes during the same unit of instruction.

Page Limits for Assessment Materials

- The file for the **formative assessment** may have a total of **up to 9 pages**:
 - up to 2 pages for the form
 - up to 2 pages for the assessment or description
 - up to 2 pages for the data/results
 - up to 3 pages for the self-assessments
- The file for the **summative assessment** may have a total of **up to 5 pages**:
 - up to 1 page for the form
 - up to 2 pages for the assessment or description
 - up to 2 pages for the data/results

When submitting assessment materials, remember to follow the “Guidelines for Referring to People, Institutions, and Places” section in the *General Portfolio Instructions*.

You must have a signed National Board Student Release Form for each student whose work samples you submit, as well as a signed National Board Adult Release Form for any adult whose communication (e.g., email, note to the teacher) is included in your submitted portfolio. It is your responsibility to keep these release forms on file indefinitely in the event a question arises regarding these permissions. In addition, National Board may request a copy of these forms as documentation for your portfolio component. The National Board release forms are available as PDF downloads from www.nbpts.org/national-board-certification/candidate-center.

How to Format and Submit Your Assessment Materials

- Complete an assessment materials form for each assessment: one formative and one summative (refer to the “[Component 4 Forms](#)” section of this document). Include the associated assessment **only if it is not copyrighted or secure** (do **not** include a copyrighted or secure ready-made assessment) or a description of the assessment and data or other results from the assessment after each form in your file for submission. For the formative assessments, also include examples of the 3 students’ use of self-assessment (one example per student).
- Be sure that your assessment materials are legible and refer to people and places in ways that preserve anonymity. Follow the “Guidelines for Referring to People, Institutions, and Places” section in the *General Portfolio Instructions*.
- Place your candidate ID on each assessment form where indicated. Clearly label the assessment (or description if the assessment itself cannot be included) and the data as “Formative” and “Summative,” as appropriate. Label each student’s use of self-assessment “Student 1,” “Student 2,” and “Student 3.” **Do not leave personally identifiable information on any documents you submit.**
- Format your materials to fit onto an 8.5" × 11" page.
 - Do not reduce full-sized pages of assessment materials to fit more than one assessment material onto a single 8.5" × 11" page. Do not use a smaller font or narrower margins in an attempt to fit in more information. **If content has been manipulated to fit, assessors will not read anything beyond the equivalent to the specified maximum length.**
 - If you need to submit a description in place of the actual assessment, it must be typed in double-spaced 11-point Arial font with 1" margins on all sides (**no more than 2 pages**).
 - If materials contain Web pages, each 8.5" × 11" Web page print out or PDF counts as **1 page** toward your page total.
 - If submitting smaller items (including photos and images, but **not text**), you may format several smaller items on one 8.5" × 11" page, which counts as **1 page** toward your page total. Each of the items must be large and clear enough for relevant details to be visible without magnification.
- If materials that are important for assessors to see are impractical to submit (e.g., slide projections, writing on a chalkboard or whiteboard, software, three-dimensional objects, video or audio recordings, multi-dimensional product), submit a digitized drawing, image, or photograph of adequate size to be visible without magnification or a description of the materials. If you submit a description, it must be typed in double-spaced 11-point Arial font with 1" margins on all sides. The images or description will count toward your page total.

- Submitted materials with illegible text or images too small to be clearly viewed will not be scored.
- Assessors will only read up to the allowable page limit. Information on pages exceeding the maximum will not be considered in the scoring of your submission.

Refer to the “[Component 4 Electronic Submission at a Glance](#)” chart in this document for the file types acceptable for submission, the number of files to submit, the page counts allowed for each piece of evidence, and how to assemble assessment materials for submission.

Participation in Learning Communities

As part of this entry, you are asked to include information and evidence of your involvement in learning communities and clearly show how that participation is connected to student learning and your practice. This requires you to describe, analyze, and reflect on your participation in the learning communities relevant to you, your students, and your practice. The learning communities may range from the classes you teach to your department, school, or district and may include your own students, the larger student body of your school or district, other teachers, administrators, school service personnel, and families.

While the professional or student needs may be directly related to the subject/s you teach, you may include needs from the broader learning community, as long as addressing those needs is clearly connected to student learning and your practice. Include ways in which this participation impacts your practice of gathering and using information about students to inform your instructional and assessment practices and contributes to positive learning changes for students. Provide evidence of the need for advocacy, collaboration, and/or leadership on your part as well as its impact on student learning by submitting the following:

- A completed **Description of Professional Learning Need Form (no more than 1 page)** on which you will describe the following:
 - a need for professional learning by yourself and/or by yourself and your colleagues that you identified as a result of your knowledge of students (either a particular group or accumulated over time) and assessment practices (**up to 24 months prior to the ePortfolio submission window**)
 - how you met that need (**up to 24 months prior to the ePortfolio submission window**)

In the file with the completed Description of Professional Learning Need Form, **include evidence (no more than 2 pages of evidence combined)** of the following:

- evidence of how you met the professional learning need (**up to 24 months prior to the ePortfolio submission window**)
- evidence of the impact of your actions on student learning (e.g., students’ performance before and after the actions were taken) (**up to 12 months prior to the ePortfolio submission window**)

The file for the **professional learning need** may have a total of **up to 3 pages**:

- up to 1 page for the form
- up to 2 pages for the evidence
- A completed **Description of a Student Need Form (no more than 1 page)** on which you will describe the following:
 - a student need (of a specific group of students or a broader population) you identified that required advocacy, collaboration, and/or leadership on your part within a larger learning community (e.g., school, district, community, professional association) (**up to 24 months prior to the ePortfolio submission window**)

- how you collaborated with others to meet that student need (**up to 24 months prior to the ePortfolio submission window**)

In the file with the completed Description of a Student Need Form, **include evidence (no more than 2 pages of evidence combined)** of the following:

- evidence of the student need (**up to 24 months prior to the ePortfolio submission window**)
- evidence of how you collaborated with others to meet the student need (**up to 24 months prior to the ePortfolio submission window**)
- evidence of the impact of the collaboration on those the plan was intended to benefit (e.g., colleagues, your students, others' students, families and caregivers, school community) (**up to 12 months prior to the ePortfolio submission window**)

The file for the **student need** may have a total of **up to 3 pages**:

- up to 1 page for the form
- up to 2 pages for the evidence

Written Commentary

In this entry, you submit a Written Commentary (**no more than 12 pages**) on your practice of gathering and using information about students and how you contribute to positive changes for students.

How to Organize and Present Your Written Commentary

- Create a word-processing document to compose your commentary. Enter the following section headings in the document:
 1. **Knowledge of Students**
 2. **Generation and Use of Assessment Data**
 3. **Participation in Learning Communities**
 4. **Reflection**
- Address the italicized questions in the following section entitled "What to Include in Your Written Commentary."
- Refer to the "Writing about Teaching" section in the *General Portfolio Instructions* for advice on developing your commentary and to see Written Commentary examples.
- When writing your commentary, refer to people and places in ways that preserve anonymity. Follow the "Guidelines for Referring to People, Institutions, and Places" section in the *General Portfolio Instructions*. **Do not leave personally identifiable information on any documents you submit.**
- Place your candidate ID number in the upper right corner of the first page of your commentary document.
- Use the following language and format specifications when writing your commentary:
 - Write in English.
 - Use double-spaced 11-point Arial font.
 - Format 1-inch margins on all sides of the document, using an 8.5" × 11" page size.
- Refer to the "Component 4 Electronic Submission at a Glance" chart in this document for complete submission requirements.
- Your commentary will be scored based on the content of your analysis; however, proofread your writing for spelling, mechanics, and usage.

- Submit a document for your commentary of no more than 12 double-spaced 8.5" × 11" pages. If you submit a longer document, only the first 12 pages will be scored.

What to Include in Your Written Commentary

Your Written Commentary must address the italicized questions provided below for each section. Statements in plain text that immediately follow an italicized question help you interpret the question. It is not necessary to include the italicized questions within the body of your response. Use the suggested page lengths in parentheses after each section heading as a guideline when addressing the questions in each section.

1. Knowledge of Students (Suggested length: 2 pages)

In this section, address the following questions:

- *What and who were the sources for the information that you gathered? What guided you in selecting those particular sources of information? Why were those sources appropriate for the information you were collecting and the selected class of students? How did you determine the relative importance of the different kinds of information you gathered?*
- *What are some of the trends you identified from the information you gathered from multiple sources? How did you identify or confirm the trends?*
- *What other factors did you take into account when analyzing and reflecting on the various sources of information and why?*
- *Based on your analysis, what are the needs of this class of students and what kinds of supports do you anticipate providing in order to meet those needs in fair and equitable ways? What other educators, professionals, family members, or community members will you need to collaborate with to meet these students' needs and why? [You will show how you apply this information to one particular unit of instruction in the next section.]*

2. Generation and Use of Assessment Data (Suggested length: 5 pages)

In this section, address the following questions:

- *How did you use the knowledge of this class of students that you collected and developed and the unit objectives to inform the planning of this unit? Specifically, how did that knowledge inform the kinds of assessments (formative and summative) you planned to use and any modifications that would be necessary given students' learning modalities, social and emotional growth, exceptionalities, abilities, interests, etc.?*
- *What steps did you take to ensure the assessment results provided consistent, fair, and accurate information about students' performance?*
- *What did your analysis of the results of the formative assessment tell you about where the students as a class are in relation to the unit objectives? What patterns, trends, or outliers did you see in the results? Cite specific examples from the submitted evidence. What other factors did you take into account as you analyzed and interpreted the results?*
- *What adjustments to the unit plan did you make based on the results of the formative assessment? Be sure to show a direct link between the information you gleaned from the assessment data and the instructional plans you made. Describe what, if any, additional resources or supports you provided or steps you took to work with families, colleagues, or others in the community.*
- *What did your analysis of the results of the summative assessment tell you about where the students as a class are in relation to the unit objectives? What patterns, trends, or outliers did you see in the results? How did that inform future instruction? What other factors did you take into account as you analyzed and interpreted the results?*

- *How did you support students' use of self-assessment during the unit to achieve the unit objectives?*
- *How did you apply the knowledge you accumulated through the multiple sources you consulted and the unit assessments to future instruction with this class? Be sure to cite specific examples.*

3. Participation in Learning Communities (Suggested length: 2 pages)

In this section, address the following questions:

- *How did you identify the area of need for professional learning? What factors or information did you consider in determining how to meet that need? What impact did addressing the professional learning need have on student learning?*
- *How did you identify the student need requiring advocacy, collaboration, and/or your leadership? Whom did you work with and what was your role? What factors or information did you consider in determining how to meet the student need? Was the need schoolwide or content-specific? What impact did addressing the student need have on student learning?*

4. Reflection (Suggested length: 3 pages)

In this section, address the following questions:

- *How effective were your efforts to develop knowledge about the class of students you selected? In the future, what different approaches or additional steps might you take to further enhance your knowledge of students and why?*
- *How has your assessment practice evolved as you have gained knowledge of your students and learned from your experiences; your interactions with colleagues, students' families and caregivers, and other community members; or your participation in professional development opportunities and learning communities?*
- *Were your professional learning and collaborative learning community activities as effective in advancing students' learning and growth as you expected? If so, what contributed to a positive result? If not, what factors influenced that outcome?*
- *Considering the major areas of professional practice addressed in this entry (developing knowledge of students, collaborating with others, using assessment, participating in learning communities), what is your plan for continuing to have a positive impact on students' learning and growth in the future?*

Component 4 Electronic Submission at a Glance

Submit your evidence of accomplished teaching using the electronic portfolio management system (see the *Guide to Electronic Submission*). Use the following chart to determine how to group your evidence and submit it electronically. Forms are available as word-processing files for you to download from www.nbpts.org/national-board-certification/candidate-center and are available for reference on the following pages of this document.

EA–AYA/Mathematics Component 4: Effective and Reflective Practitioner			
What to Submit	Supported File Types	Number of Files to Submit/Response Length	Additional Information
Contextual Information Sheet (form provided)	docx, odt, or pdf	Submit 1 file that includes: <ul style="list-style-type: none"> Completed Contextual Information Sheet (no more than 1 page) 	<ul style="list-style-type: none"> Use 11-point Arial font Single space
Knowledge of Students (form provided)	docx, odt, or pdf	Submit 1 file that includes: <ul style="list-style-type: none"> Completed Group Information and Profile Form (no more than 2 pages) Evidence that you gathered information from at least two sources (no more than 2 pages) 	<ul style="list-style-type: none"> Use 11-point Arial font Single space Label evidence appropriately
Generation and Use of Assessment Data (forms provided)	docx, odt, or pdf	Submit 3 files that include: <ol style="list-style-type: none"> Completed Instructional Context Form (no more than 1 page) Formative assessment materials, including: <ul style="list-style-type: none"> Completed Formative Assessment Materials Form (no more than 2 pages) Teacher-made formative assessment OR description of copyrighted or secure ready-made assessment (no more than 2 pages) Data or other results from formative assessment (no more than 2 pages) Examples of 3 different students' use of self-assessment (no more than 3 pages combined) Summative assessment materials, including: <ul style="list-style-type: none"> Completed Summative Assessment Materials Form (no more than 1 page) Teacher-made summative assessment OR description of copyrighted or secure ready-made assessment (no more than 2 pages) Data or other results from summative assessment (no more than 2 pages) 	<ul style="list-style-type: none"> Use 11-point Arial font for forms and descriptions (if any) Single space forms; double space descriptions (if any) Label the assessments and/or descriptions and data as "Formative" and "Summative," as appropriate. Label each student's use of self-assessment as "Student 1," "Student 2," and "Student 3," as appropriate. Do not leave personally identifiable information on any documents you submit. Refer to the "Guidelines for Referring to People, Institutions, and Places" section in the <i>General Portfolio Instructions</i>.
Participation in Learning Communities (forms provided)	docx, odt, or pdf	Submit 2 files that include: <ol style="list-style-type: none"> Completed Description of Professional Learning Need Form (no more than 1 page), including the following evidence (no more than 2 pages of evidence combined): <ul style="list-style-type: none"> Evidence of how you met the professional learning need Evidence of the impact of your actions on student learning Completed Description of a Student Need Form (no more than 1 page), including the following evidence (no more than 2 pages of evidence combined): <ul style="list-style-type: none"> Evidence of the student need Evidence of how you collaborated with others to meet the student need Evidence of the impact of the collaboration on those the plan was intended to benefit 	<ul style="list-style-type: none"> Use 11-point Arial font Single space Label evidence appropriately
Written Commentary	docx, odt, or pdf	Submit 1 file (no more than 12 pages)	<ul style="list-style-type: none"> Use 11-point Arial font Double space with 1" margins on all sides

Release forms are available as PDF downloads from www.nbpts.org/national-board-certification/candidate-center. Retain completed release forms for your records; do not submit them with your evidence.

Component 4 Forms

This section contains the forms required for Component 4. You must download the word-processing files available at www.nbpts.org/national-board-certification/candidate-center, fill them out electronically, include any associated evidence in the file with the completed form, and then upload the complete electronic file or scanned image to the electronic portfolio management system.

You may not delete any original text on the forms (including the header, footer, title, directions, notes, and prompts) to allow more space for your responses; both the original text and your responses are included in the total page count allowed. Pages exceeding the maximum allowed will not be scored.

As you prepare your portfolio, keep in mind some forms contain directions that are not repeated elsewhere; follow these directions carefully.

A signed release form is required for each student whose self-assessments are included. These release forms are available as PDF downloads from www.nbpts.org/national-board-certification/candidate-center.

Remember, all last names on correspondence, assessments, and student self-assessments **must be redacted**. Do **not** leave personally identifiable information on any documents you submit.

Do **not** include a copyrighted or secure ready-made assessment or any other copyrighted materials with your submission.

Contextual Information Sheet

Directions: Respond to the prompts below (**no more than 1 single-spaced page in Arial 11-point font**) by typing your responses within the brackets following each prompt. Do not delete or alter any original text on this form (including the header, footer, title, directions, notes, and prompts); both the original text and your responses are included in the total page count allowed. Pages exceeding the maximum will not be scored. Please spell out the first occurrence of acronyms.

This form asks you to describe the broader context in which you teach:

- **If you teach in different schools that have different characteristics, and this portfolio entry features students from more than one school**, please complete a separate sheet for each school associated with this portfolio entry.
- In this component, you are asked to provide specific information about the students in the class you have featured in the portfolio entry. This is *in addition* to the information requested here.

Candidate ID#: []

1. Briefly identify the **type of school/program** in which you teach and the **grade/subject configuration** (single grade, departmentalized, interdisciplinary teams, etc.).

[]

2. Briefly identify.

Grades: []

Age Levels: []

Number of Students Taught Daily: []

Average Number of Students in Each Class: []

Courses Taught: []

3. What information about your teaching context do you believe would be important for assessors to know to understand your portfolio entry? Be brief and specific.

Note: You might include details of any state and/or district mandates as well as information regarding staff, scheduling of classes, available space, and access to current technology.

[]

Group Information and Profile Form

Directions: Respond to the prompts below (**no more than 2 single-spaced pages in Arial 11-point font**) by typing your responses within the brackets following each prompt. Do not delete or alter any original text on this form (including the header, footer, title, directions, and prompts); both the original text and your responses are included in the total page count allowed. Pages exceeding the maximum will not be scored.

With the completed Group Information and Profile Form, include **no more than 2 pages** of evidence (e.g., progress charting, email records, ongoing notes) that you gathered information from at least two of the following sources: families, colleagues, professionals in the district or in the field, and/or other community members.

Candidate ID#: []

1. Describe the information about the group of students you collected from multiple sources and how you collected it.

[]

2. Describe the group of students you selected to feature in this portfolio entry based on the information you gathered.

[]

Instructional Context Form

Directions: Respond to the prompts below (**no more than 1 single-spaced page in Arial 11-point font**) by typing your responses within the brackets following each prompt. Do not delete or alter any original text on this form (including the header, footer, title, directions, and prompts); both the original text and your responses are included in the total page count allowed. Pages exceeding the maximum will not be scored.

Candidate ID#: []

1. Describe the unit.

[]

2. Describe the unit objectives.

[]

3. Describe why the selected assessments are appropriate for the students and the unit objectives.

[]

Formative Assessment Materials Form

Directions: Respond to the prompt(s) below (**no more than 2 single-spaced pages in Arial 11-point font**) by typing your response within the brackets following each prompt. Do not delete or alter any original text on this form (including the header, footer, title, directions, and prompt); both the original text and your response are included in the total page count allowed. Pages exceeding the maximum will not be scored.

With the completed Formative Assessment Materials Form, include the following:

- The assessment (**no more than 2 pages**) if it is teacher-made **OR** a description (**no more than 2 pages**) if a copyrighted or secure ready-made assessment was used (do not include a copyrighted or secure ready-made assessment)
- Data or other results from the assessment that illustrate patterns, trends, or outliers in students' responses (**no more than 2 pages**)
- Examples of 3 students' use of self-assessment (**no more than 3 pages**)

Candidate ID#: []

1. Describe the assessment, including the purpose and appropriate use of the assessment, student population for whom the assessment is intended, how the assessment was developed, how it was administered, how the results were scored/evaluated, and how the results are intended to be used.

[]

2. Provide context for the examples of student self-assessments.

[]

Summative Assessment Materials Form

Directions: Respond to the prompt(s) below (**no more than 1 single-spaced page in Arial 11-point font**) by typing your response within the brackets following each prompt. Do not delete or alter any original text on this form (including the header, footer, title, directions, and prompt); both the original text and your response are included in the total page count allowed. Pages exceeding the maximum will not be scored.

With the completed Summative Assessment Materials Form, include the following:

- The assessment (**no more than 2 pages**) if it is teacher-made **OR** a description (**no more than 2 pages**) if a copyrighted or secure ready-made assessment was used (do not include a copyrighted or secure ready-made assessment)
- Data or other results from the assessment that illustrate patterns, trends, or outliers in students' responses (**no more than 2 pages**)

Candidate ID#: []

1. Describe the assessment, including the purpose and appropriate use of the assessment, student population for whom the assessment is intended, how the assessment was developed, how it was administered and scored, and how the scores are intended to be used.

[]

Description of Professional Learning Need Form

Directions: Respond to the prompts below (**no more than 1 single-spaced page in Arial 11-point font**) by typing your responses within the brackets following each prompt. Do not delete or alter any original text on this form (including the header, footer, title, directions, and prompts); both the original text and your responses are included in the total page count allowed. Pages exceeding the maximum will not be scored.

With the completed Description of Professional Learning Need Form, include the following evidence (**no more than 2 pages combined**):

- Evidence of how you met the professional learning need you described below
- Evidence of the impact of your actions on student learning (e.g., students' performance before and after the actions were taken)

Candidate ID#: []

1. Describe a need for professional learning by yourself and/or your colleagues that you identified as a result of your knowledge of students (either a particular group or accumulated over time).

[]

2. Describe the evidence you provided of how you met the professional learning need you described above.

[]

Description of a Student Need Form

Directions: Respond to the prompts below (**no more than 1 single-spaced page in Arial 11-point font**) by typing your responses within the brackets following each prompt. Do not delete or alter any original text on this form (including the header, footer, title, directions, and prompts); both the original text and your responses are included in the total page count allowed. Pages exceeding the maximum will not be scored.

With the completed Description of a Student Need Form, include the following evidence (**no more than 2 pages combined**):

- Evidence of the student need
- Evidence of how you collaborated with others to meet the student need
- Evidence of the impact of the collaboration on those the plan was intended to benefit (e.g., colleagues, your students, others' students, families and caregivers, school community)

Candidate ID#: []

1. Describe a student need (of a specific group of students or a broader population) you identified that required advocacy, collaboration, and/or leadership on your part within a larger learning community (e.g., school, district, community, professional association).

[]

2. Describe the evidence you provided of how you collaborated with others to meet the student need you described above.

[]

Scoring Rubric for EA–AYA/Mathematics

Component 4

Level 4

The **LEVEL 4** performance provides clear, consistent, and convincing evidence the teacher develops and uses knowledge of students gathered from multiple sources to inform instruction and assessment; reflects on his or her own practice; and collaborates with families and caregivers, the community, colleagues, and others to create improvements that advance student learning and growth.

The Level 4 performance provides *clear, consistent, and convincing* evidence the teacher:

- collaborates effectively with families and caregivers, colleagues, and others to develop information about a group of students and insightfully evaluates the information for relevance and relative importance.
- applies the in-depth knowledge gathered about the group of students in planning effective and fair instruction and assessment.
- understands that assessment is a recursive process that involves setting initial learning goals, administering assessments that are appropriate to measure students' progress toward those goals, evaluating student progress, and, based on the analysis of results and knowledge of students, setting new learning goals to improve student learning.
- selects or creates assessments that measure what he/she intends to measure and understands how to use assessments productively for formative and summative purposes to gain information about student progress and to inform and modify instruction.
- collects, analyzes, and compares data skillfully to identify trends and patterns and uses that information to design, evaluate, and modify instruction and assessment practices to meet students' needs.
- helps students effectively apply feedback from assessments in ways that positively impact the students' learning, skillfully enabling students to use assessment as a tool to take responsibility for their own learning.
- actively encourages, guides, and supports student self-assessment to help students become active participants in their education and to evaluate and think critically about their performance.
- systematically and insightfully reflects on ways to improve his/her instructional and assessment practices that will lead to improvements in student learning and growth.
- methodically expands his/her own professional knowledge by participating in professional development and engaging in advocacy, collaborations with families and caregivers, colleagues, the community, or other learning communities, and/or leadership in order to contribute measurably to student learning and growth.

Overall, there is *clear, consistent, and convincing* evidence the teacher develops and uses knowledge of students gathered from multiple sources to inform instruction and assessment; reflects on his or her own practice; and collaborates with families and caregivers, the community, colleagues, and others to create improvements that advance student learning and growth.

Level 3

The **LEVEL 3** performance provides *clear* evidence the teacher develops and uses knowledge of students gathered from multiple sources to inform instruction and assessment; reflects on his or her own practice; and collaborates with families and caregivers, the community, colleagues, and others to create improvements that advance student learning and growth.

The Level 3 performance provides *clear* evidence the teacher:

- collaborates appropriately with families and caregivers, colleagues, and others to develop information about a group of students and evaluates the information for relevance and relative importance.
- adequately applies the knowledge gathered about the group of students in planning instruction and assessment.
- understands that assessment is a recursive process that involves setting initial learning goals, administering assessments that are appropriate to measure students' progress toward those goals, evaluating student progress, and, based on the analysis of results and knowledge of students, setting new learning goals to improve student learning.
- selects or creates assessments that measure what he/she intends to measure and understands how to use assessments adequately for formative and summative purposes to gain information about student progress and to inform and modify instruction.
- collects, analyzes, and compares data capably to identify trends and patterns and uses that information to design, evaluate, and modify instruction to meet students' needs.
- helps students adequately apply feedback from assessments in ways that positively impact the students' learning, routinely enabling students to use assessment as a tool to take responsibility for their own learning.
- encourages, guides, and supports student self-assessment to help students become active participants in their education and to evaluate and think critically about their performance.
- regularly reflects on ways to improve his/her instructional and assessment practices that will lead to improvements in student learning and growth.
- expands his/her own professional knowledge by participating in professional development and engaging in advocacy, collaborations with families and caregivers, colleagues, the community, or other learning communities, and/or leadership in order to contribute to student learning and growth.

Overall, there is *clear* evidence the teacher develops and uses knowledge of students gathered from multiple sources to inform instruction and assessment; reflects on his or her own practice; and collaborates with families and caregivers, the community, colleagues, and others to create improvements that advance student learning and growth.

Level 2

The **LEVEL 2** performance provides *limited* evidence the teacher develops and uses knowledge of students gathered from multiple sources to inform instruction and assessment; reflects on his or her own practice; and collaborates with families and caregivers, the community, colleagues, and others to create improvements that advance student learning and growth.

The Level 2 performance provides *limited* evidence the teacher:

- collaborates with families and caregivers, colleagues, and others to develop information about a group of students and evaluates the information for relevance and relative importance. The information gathered may be incomplete or superficial.
- applies the knowledge gathered about the group of students in planning instruction and assessment. The connection between the gathered information about the students and the unit objectives, instruction, and/or assessments may be unclear or weak.
- understands that assessment is a recursive process that involves setting initial learning goals, administering assessments that are appropriate to measure students' progress toward those goals, evaluating student progress, and, based on the analysis of results and knowledge of students, setting new learning goals to improve student learning.
- selects or creates assessments that measure what he/she intends to measure and understands how to use assessments for formative and summative purposes to gain information about student progress and to inform and modify instruction. The assessments may be inappropriate or ineffective for the intended purpose.
- collects, analyzes, and compares data to identify trends and patterns and uses that information to design, evaluate, or modify instruction to meet students' needs. The data may be incomplete or the effect of the data on instruction is vague or general.
- helps students apply feedback from assessments in ways that positively impact the students' learning.
- guides and supports student self-assessment to help students become active participants in their education and evaluate and think critically about their performance.
- reflects on ways to improve his/her instructional and assessment practices that will lead to improvements in student learning and growth.
- expands his/her own professional knowledge by participating in professional development and engaging in advocacy, collaborations with families and caregivers, colleagues, the community, or other learning communities, and/or leadership in order to contribute to student learning and growth. The link between activities for expanding one's professional knowledge and the impact on student learning and growth may be unclear or weak.

Overall, there is *limited* evidence the teacher develops and uses knowledge of students gathered from multiple sources to inform instruction and assessment; reflects on his or her own practice; and collaborates with families and caregivers, the community, colleagues, and others to create improvements that advance student learning and growth.

Level 1

The **LEVEL 1** performance provides *little or no* evidence the teacher develops and uses knowledge of students gathered from multiple sources to inform instruction and assessment; reflects on his or her own practice; and collaborates with families and caregivers, the community, colleagues, and others to create improvements that advance student learning and growth.

The Level 1 performance provides *little or no* evidence the teacher:

- collaborates with families and caregivers, colleagues, and others to develop information about a group of students and evaluates the information for relevance and relative importance.
- applies the knowledge gathered about the group of students in planning instruction and assessment. There may be little or no connection between the gathered information about the students and the unit objectives, instruction, and/or assessments.
- understands that assessment is a recursive process that involves setting initial learning goals, administering assessments to measure students' progress toward those goals, evaluating student progress, and setting new learning goals to improve student learning. There may be gaps or poor articulation between steps in the process.
- selects or creates assessments that measure what he/she intends to measure and understands how to use assessments for formative and summative purposes to gain information about student progress and to inform and modify instruction. The assessments may be missing and/or disconnected from their intended purpose.
- collects, analyzes, and compares data to identify trends and patterns and uses that information to design, evaluate, and modify instruction. The data may be incomplete or minimal and not used effectively to impact instruction.
- helps some students apply feedback from assessments in ways that impact the students' learning.
- supports student self-assessment to help students become active participants in their education and encourages students to evaluate their performance.
- reflects on ways to improve his/her instructional and assessment practices that will lead to improvements in student learning and growth.
- expands his/her own professional knowledge by participating in professional development and engaging in advocacy, collaborations with families and caregivers, colleagues, the community, or other learning communities, and/or leadership in order to contribute to student learning and growth. The cited activities may be trivial and/or have little connection to student learning and growth.

Overall, there is *little or no* evidence the teacher develops and uses knowledge of students gathered from multiple sources to inform instruction and assessment; reflects on his or her own practice; and collaborates with families and caregivers, the community, colleagues, and others to create improvements that advance student learning and growth.

Produced for

NATIONAL BOARD

for Professional Teaching Standards®

by



Pearson

© 2020 National Board for Professional Teaching Standards. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording, or any information storage or retrieval system, without permission in writing from the publisher.

The National Board for Professional Teaching Standards logo, National Board for Professional Teaching Standards, NBPTS, National Board Certified Teacher, NBCT, National Board Certification, Accomplished Teacher, and Profile of Professional Growth are registered trademarks or service marks of the National Board for Professional Teaching Standards. Other marks are trademarks or registered trademarks of their respective organizations.

The National Board for Professional Teaching Standards, Inc. has been funded in part with grants from the U.S. Department of Education. The contents of this publication do not necessarily represent the policy of the U.S. Department of Education, and you should not assume endorsement by the Federal Government. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the sponsors.

Prepared by Pearson for submission under contract with the National Board for Professional Teaching Standards®.

Pearson and its logo are trademarks, in the U.S. and/or other countries, of Pearson Education, Inc. or its affiliate(s).

Contextual Information Sheet

Directions: Respond to the prompts below (**no more than 1 single-spaced page in Arial 11-point font**) by typing your responses within the brackets following each prompt. Do not delete or alter any original text on this form (including the header, footer, title, directions, notes, and prompts); both the original text and your responses are included in the total page count allowed. Pages exceeding the maximum will not be scored. Please spell out the first occurrence of acronyms.

This form asks you to describe the broader context in which you teach:

- **If you teach in different schools that have different characteristics, and this portfolio entry features students from more than one school**, please complete a separate sheet for each school associated with this portfolio entry.
- In this component, you are asked to provide specific information about the students in the class you have featured in the portfolio entry. This is *in addition* to the information requested here.

Candidate ID#: []

1. Briefly identify the **type of school/program** in which you teach and the **grade/subject configuration** (single grade, departmentalized, interdisciplinary teams, etc.).

[]

2. Briefly identify.

Grades: []

Age Levels: []

Number of Students Taught Daily: []

Average Number of Students in Each Class: []

Courses Taught: []

3. What information about your teaching context do you believe would be important for assessors to know to understand your portfolio entry? Be brief and specific.

Note: You might include details of any state and/or district mandates as well as information regarding staff, scheduling of classes, available space, and access to current technology.

[]

Description of Professional Learning Need Form

Directions: Respond to the prompts below (**no more than 1 single-spaced page in Arial 11-point font**) by typing your responses within the brackets following each prompt. Do not delete or alter any original text on this form (including the header, footer, title, directions, and prompts); both the original text and your responses are included in the total page count allowed. Pages exceeding the maximum will not be scored.

With the completed Description of Professional Learning Need Form, include the following evidence (**no more than 2 pages combined**):

- Evidence of how you met the professional learning need you described below
- Evidence of the impact of your actions on student learning (e.g., students' performance before and after the actions were taken)

Candidate ID#: []

1. Describe a need for professional learning by yourself and/or your colleagues that you identified as a result of your knowledge of students (either a particular group or accumulated over time).

[]

2. Describe the evidence you provided of how you met the professional learning need you described above.

[]

Description of a Student Need Form

Directions: Respond to the prompts below (**no more than 1 single-spaced page in Arial 11-point font**) by typing your responses within the brackets following each prompt. Do not delete or alter any original text on this form (including the header, footer, title, directions, and prompts); both the original text and your responses are included in the total page count allowed. Pages exceeding the maximum will not be scored.

With the completed Description of a Student Need Form, include the following evidence (**no more than 2 pages combined**):

- Evidence of the student need
- Evidence of how you collaborated with others to meet the student need
- Evidence of the impact of the collaboration on those the plan was intended to benefit (e.g., colleagues, your students, others' students, families and caregivers, school community)

Candidate ID#: []

1. Describe a student need (of a specific group of students or a broader population) you identified that required advocacy, collaboration, and/or leadership on your part within a larger learning community (e.g., school, district, community, professional association).
[]
2. Describe the evidence you provided of how you collaborated with others to meet the student need you described above.
[]

Formative Assessment Materials Form

Directions: Respond to the prompt(s) below (**no more than 2 single-spaced pages in Arial 11-point font**) by typing your response within the brackets following each prompt. Do not delete or alter any original text on this form (including the header, footer, title, directions, and prompt); both the original text and your response are included in the total page count allowed. Pages exceeding the maximum will not be scored.

With the completed Formative Assessment Materials Form, include the following:

- The assessment (**no more than 2 pages**) if it is teacher-made **OR** a description (**no more than 2 pages**) if a copyrighted or secure ready-made assessment was used (do not include a copyrighted or secure ready-made assessment)
- Data or other results from the assessment that illustrate patterns, trends, or outliers in students' responses (**no more than 2 pages**)
- Examples of 3 students' use of self-assessment (**no more than 3 pages**)

Candidate ID#: []

1. Describe the assessment, including the purpose and appropriate use of the assessment, student population for whom the assessment is intended, how the assessment was developed, how it was administered, how the results were scored/evaluated, and how the results are intended to be used.

[]

2. Provide context for the examples of student self-assessments.

[]

Group Information and Profile Form

Directions: Respond to the prompts below (**no more than 2 single-spaced pages in Arial 11-point font**) by typing your responses within the brackets following each prompt. Do not delete or alter any original text on this form (including the header, footer, title, directions, and prompts); both the original text and your responses are included in the total page count allowed. Pages exceeding the maximum will not be scored.

With the completed Group Information and Profile Form, include **no more than 2 pages** of evidence (e.g., progress charting, email records, ongoing notes) that you gathered information from at least two of the following sources: families, colleagues, professionals in the district or in the field, and/or other community members.

Candidate ID#: []

1. Describe the information about the group of students you collected from multiple sources and how you collected it.

[]

2. Describe the group of students you selected to feature in this portfolio entry based on the information you gathered.

[]

Instructional Context Form

Directions: Respond to the prompts below (**no more than 1 single-spaced page in Arial 11-point font**) by typing your responses within the brackets following each prompt. Do not delete or alter any original text on this form (including the header, footer, title, directions, and prompts); both the original text and your responses are included in the total page count allowed. Pages exceeding the maximum will not be scored.

Candidate ID#: []

1. Describe the unit.

[]

2. Describe the unit objectives.

[]

3. Describe why the selected assessments are appropriate for the students and the unit objectives.

[]

Summative Assessment Materials Form

Directions: Respond to the prompt(s) below (**no more than 1 single-spaced page in Arial 11-point font**) by typing your response within the brackets following each prompt. Do not delete or alter any original text on this form (including the header, footer, title, directions, and prompt); both the original text and your response are included in the total page count allowed. Pages exceeding the maximum will not be scored.

With the completed Summative Assessment Materials Form, include the following:

- The assessment (**no more than 2 pages**) if it is teacher-made **OR** a description (**no more than 2 pages**) if a copyrighted or secure ready-made assessment was used (do not include a copyrighted or secure ready-made assessment)
- Data or other results from the assessment that illustrate patterns, trends, or outliers in students' responses (**no more than 2 pages**)

Candidate ID#: []

1. Describe the assessment, including the purpose and appropriate use of the assessment, student population for whom the assessment is intended, how the assessment was developed, how it was administered and scored, and how the scores are intended to be used.

[]



Forms

NATIONAL BOARD

for Professional Teaching Standards®

National Board Certification®

Eligibility Verification Forms and Instructions

Effective 2018

Note: The National Board will routinely audit candidate records and request proof of meeting the eligibility prerequisites as outlined in the *Guide to National Board Certification*. If you have not been selected to participate in the audit, do not submit these Eligibility Verification Forms.

© 2018 National Board for Professional Teaching Standards. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording, or any information storage or retrieval system, without permission in writing from the publisher.

The National Board for Professional Teaching Standards logo, National Board for Professional Teaching Standards, NBPTS, National Board Certified Teacher, NBCT, National Board Certification, *Take One!*, 1-800-22TEACH, *Accomplished Teacher*, and Profile of Professional Growth are registered trademarks or service marks of the National Board for Professional Teaching Standards. Other marks are trademarks or registered trademarks of their respective organizations.

The contents of this publication were developed in whole or in part under a grant from the U.S. Department of Education. However, those contents do not necessarily represent the policy of the Department of Education, and you should not assume endorsement by the federal government.

Prepared by Pearson for submission under contract with the National Board for Professional Teaching Standards®.

Pearson and its logo are trademarks, in the U.S. and/or other countries, of Pearson Education, Inc. or its affiliate(s).

INSTRUCTIONS

Follow the steps in this section to determine whether you meet the eligibility requirements for National Board Certification®. To be eligible, you must submit proof that you meet all employment, licensure, and education requirements prior to starting the certification process. Because teaching situations vary widely across the country, candidates are strongly urged to call 1-800-22TEACH (83224) to clarify these rules prior to applying and making payment, as the application charge and initial fee are nonrefundable.

If you meet the three requirements listed below, you may use the combined **Candidate Eligibility Verification Form**:

- (1) Have worked for at least three years in the same state-supported school district.
- (2) Were required to hold at least a bachelor's degree for employment at this school (note, candidates registering for the Career and Technical Education certificate are required to hold a bachelor's degree only if their state required one for their current license).
- (3) Were required to hold a valid state teaching license (or school counseling license if you applied for the ECYA/School Counseling certificate) for the three years of employment at this school.

If you do not meet the requirements above, you must complete and submit the following forms:

- **Candidate Education Verification Form**
- **Candidate Employment Verification Form**
- **Candidate License Verification Form**
- **Candidate Workplace Verification Form**

All of the forms listed above are included in this document. Submit your completed forms to us, using the [National Board web form](#) on the National Board's Contact Us page.

ECYA/School Counseling Candidates: To apply for this certificate area, you must have been employed as a school counselor (not as a classroom teacher) at the pre-K through 12 level for a minimum of three years, meet the licensure requirements established by your state for a "school counselor," and have held that valid license during those years of employment.

COMPLETING AND SUBMITTING REQUIRED FORMS

Almost all verification forms request information from you and from institution(s). It may take time for the institution(s) to complete these forms; the National Board encourages you to submit them to the appropriate institution(s) as soon as possible. Before you submit any forms to an institution, complete the following steps:

- Complete your portion of the forms as instructed.
- Sign your name.
- Write your National Board ID number in the space provided.

Because you are responsible for submitting all documentation to the National Board, you will need to instruct the institution(s) to return the completed form(s) directly to you. Remember that you will sign these forms attesting that the information is accurate.

Submit all completed forms and documentation to verify you meet the eligibility requirements at the same time - the National Board is unable to process individual forms that are sent separately. Once you have received all signed and completed forms from the necessary institution(s), submit them together using the [National Board web form](#) on the National Board's Contact Us page. You will need to create a Zip file or convert your individual forms to a multi-paged PDF before submitting.

If the National Board does not receive these completed forms by the established deadline, you will be declared ineligible for National Board Certification, and your registration will be withdrawn.



Additional Resources

Applicant Information Page

Part 1:

- Complete all parts of applicant information
- Submit proof of name change if different from previous application (marriage certificate, divorce decree, etc.)
- Provide email address as it is the preferred method of communication

Part 2:

- **Background Information:** If you answer YES to any question SUBMIT a narrative with your application. The narrative should include dates, locations, school systems, and all/any other information that explains the circumstance(s) in detail. Also include any court documentation. If no documentation is available please obtain official correspondence from court stating no documentation is available.
 - include incidents that have been dismissed or expunged

Part 3: Applicant Signature

Part 4: Fingerprinting - Check appropriate box

- 1st Time applicants: fingerprints processed by L -1 Solutions (L1enrollment.com)
- Previously certified in WV – do not need to resubmit

Part 5: County Superintendents recommendation by signature – Must be employed in the WV public school system.

INSTRUCTIONS FOR SUBMITTING FEE REIMBURSEMENT APPLICATIONS (Form 33, Form 36, and Form 37)

Beginning July 1, 2012, all Form 33, Form 36, and Form 37 fee reimbursement applications submitted to the Office of Certification and Professional Preparation **MUST** include all required documentation for approval. The required documentation is listed on the appropriate Form 33, Form 36, and Form 37 application page.

Any application received without all required documentation, as listed on the Form 33, Form 36, and/or Form 37 application page, will be denied. To reapply, a new application must be submitted to the Office of Certification and Professional Preparation.

The approval and denial status for all Form 33, Form 36, and Form 37 applications will be displayed **online only** for the county of employment and for the applicant. Payment for all applications, if approved for state reimbursement, will be issued by the county of employment. Any state-approved reimbursement amount will be listed on the online reimbursement status site.

Fee reimbursement applications are processed on the fiscal year system. All Form 33, 36 and 37 applications received during each fiscal year (July 1 through the following June 30) will be processed by the end of that same fiscal year (June 30).

Fee reimbursement application information is available through:

<https://wveis.k12.wv.us/certcheck/>

Then select "Reimbursements" then "View Details" link



Date Received by County Board of Education: _____

Date Received by Institution of Higher Education: _____

Part 1 -Applicant Information

Social Security Number _____ Birth Date (MM-DD-YYYY) _____ Gender (M or F) _____ US Citizen (Y or N) _____ US Veteran or Spouse of Veteran (Y or N) _____

Last Name _____ First Name _____ MI _____ Previous Last Name (Maiden) _____
(If your name has changed since your last application, **proof of name change must be attached** e.g. photocopy of marriage certificate, etc.)

Street Address _____ City _____ State _____ Zip Code _____

Primary Phone _____ Secondary Phone _____ E-Mail _____

List the institutions from which a degree has been earned			Are you currently employed by a West Virginia School System?		Do you currently hold a License to work in the public schools of West Virginia?	
College/University	Degree	Date	Yes	No	Yes	No
			If YES, please indicate the school system:		Do you currently hold a License to work in the public schools of another state?	
					Yes	No

Part 3—Applicant Signature

I swear or affirm under the penalty of false swearing that all information provided in or with this application is true, correct, and complete to the best of my knowledge. I understand that any false statements, misrepresentations, or omissions of fact in or with this application are grounds for denial, suspension, or revocation of the license(s) that I am seeking or currently hold.

Signature of Applicant _____ Date _____

Please Identify the Attached Application

Form 33 Form 36 Form 37

Part 4—Fingerprinting Information

One may access fingerprinting instructions at <http://wvde.state.wv.us/certification/forms/fingerprints>

I have previously received Certification in WV and understand that I do not need to re-submit my fingerprints.

I have never held WV Certification and will submit my fingerprints to L1 Solutions. All first-time applicants must have fingerprints processed by L1 Solutions (L1 enrollment.com). A fingerprint service code will be sent to your e-mail once the application is received.

Part 5 - Superintendent Recommendation (Required)

I certify that I have reviewed and can attest to the accuracy and truthfulness of the information provided in this application. When necessary, I have included documentation verifying this information. I have reviewed the disclosure of background information, and, to the best of my knowledge, the applicant is of good moral character and is physically, mentally, and emotionally qualified to perform the duties of a teacher. I recommend that s/he be granted certification.

Signature of Superintendent _____ County _____ Date _____

Part 2-Disclosure of Background Information

If you answer yes to any question below, SUBMIT a narrative with your application. The narrative should include dates, locations, school systems, and all/any other information that explains the circumstance(s) in detail.

1) Have you ever had adverse action taken against any application, certificate, or license in any state? Adverse action includes but is not limited to the following: letter of warning, reprimand, denial, suspension, revocation, voluntary surrender or cancellation.

2) Have you ever been disciplined, reprimanded, suspended, or discharged from any employment because of allegations of misconduct?

3) Have you ever resigned, entered into a settlement agreement, or otherwise left employment as a result of alleged misconduct?

4) Is any action now pending against you for alleged misconduct in any school district, court, or before any educator licensing agency?

5) Have you ever been arrested, charged with, convicted of, or are currently under indictment for a felony? *

6) Have you ever been arrested, charged with or convicted of a misdemeanor? (For the purpose of this application, minor traffic violations should not be reported) Charges or convictions for driving while intoxicated (DWI) or driving under the influence of alcohol or other drugs (DUI) must be reported. *

YES	NO	Documentation Attached

* For a YES response to items 5 & 6, the following must be included for all charges, including those that have been dismissed or expunged: 1) Judgment Order; **OR** 2) Final Order; **OR** 3) Magistrate Court Documentation; **AND** 4) all other relevant court documentation.



Part 1—NBPTS Fee Reimbursement Request

- Enrollment** in the NBPTS Initial Program \$ _____
(first 1/2 of program fee)
- Completion** of the NBPTS Initial Program \$ _____
(remaining 1/2 of program fee)
- Extra expenses** (up to a maximum of \$600 allowable. You must complete **Part 2** of this application.) \$ _____
- Renewal** of the NBPTS certification \$ _____

Total Amount Requested: \$ _____

This completed application must include:

- **for enrollment fee reimbursement-** First Two Components
 - A copy of correspondence from the NBPTS verifying enrollment in the program, with the candidate ID number; **AND**
 - A copy of an NBPTS receipt verifying the payment made to the NBPTS for the amount being claimed for enrollment fee reimbursement.
- **for completion fee reimbursement- After Completion of All Four Components**
 - A copy of an NBPTS receipt verifying the payment made to the NBPTS for the amount being claimed for completion fee reimbursement; **AND**
 - **A copy of NBPTS documentation verifying that all four components have been received by the NBPTS for final scoring; or**
 - A copy of correspondence from the NBPTS verifying that retakes are needed; **or**
 - A copy of documentation from the NBPTS verifying that NBPTS board certification has been granted.
- **for extra expenses reimbursement:**
 - A numbered receipt for each item being claimed for extra expenses; **AND**
 - A copy of documentation from the NBPTS verifying that NBPTS board certification has been granted; **AND**
 - A completed Part 2 section of this application page.
- **for renewal fee reimbursement:**
 - A copy of an NBPTS receipt verifying the payment made to the NBPTS for the amount being claimed for renewal fee reimbursement.
 - NBPTS documentation verifying the new expiration date of the renewed NBPTS board certification

Form 37— National Board for Professional Teaching Standards (NBPTS) - Fee Reimbursement

Social Security Number: _____

Last Name: _____ First Name: _____ MI: _____

Part 2—Reimbursement of Extra Expenses

Please read the following instructions carefully: Applicants who have completed the NBPTS program are eligible for reimbursement of actual expenses (**\$600.00 maximum**) incurred while completing the program, *unless a retake fee waiver has been granted. The expenses itemized below must be accompanied by receipts that are numbered and attached to an 8-1/2" X 11" sheet(s) of white paper.* These items may include purchases such as tuition for NBPTS certification preparation classes, retake fees *not* waived, supplies, postage, equipment rental fees, etc. Items **not** eligible for reimbursement include any durable goods such as computer or video equipment.

Date	Receipt #	Item	Cost

Total Amount Requested for Extra Expenses Only (Limited to \$600)

Guidelines for NBPTS Reimbursement

In accordance with W. Va. Code §18A-4-2a regarding the NBPTS certification fee reimbursement program, the applicant for reimbursement must be a public school classroom teacher as defined in W. Va. Code §18A-1-1; meet all NBPTS eligibility criteria; and be enrolled in or have completed the NBPTS certification program while employed as a classroom teacher (or counselor) in the WV public school system. An applicant may be reimbursed only once for enrollment in and once for completion of the NBPTS program. Additionally, a classroom teacher who achieves NBPTS certification may be reimbursed a maximum of \$600.00 for actual extra expenses incurred while completing the NBPTS certification process.

I certify that I have read the criteria for fee reimbursement and I meet all eligibility criteria. I further certify that all information I have provided on the application is accurate and that I have completed the program requirements as indicated. I swear or affirm under the penalty of false swearing that all information provided in or with this application is true, correct, and complete to the best of my knowledge. I understand that any false statements, misrepresentations, or omissions of fact in or with this application are grounds for denial, suspension, or revocation of the license that I currently hold and grounds for denial of reimbursement or for repayment of such reimbursement to the State. I further certify that I am not requesting reimbursement for federal subsidy or other monies provided by a third-party payer and that all of the information I have provided on the application is accurate and truthful. I agree to repay all monies gained through submission of erroneous information.

SIGNATURE OF APPLICANT

Date

WRITE YOUR NATIONAL BOARD ID NUMBER HERE

CANDIDATE ELIGIBILITY VERIFICATION FORM

This **combined** form is for use **ONLY** if you (1) have worked for at least three years (or the equivalent) at the same state-supported school district, (2) are required to hold at least a bachelor's degree (or its equivalent if applying for the CTE certificate) for employment at this school, and (3) are required to hold a valid state teaching license (or school counseling license if you applied for the ECYA/School Counseling certificate) for the three years of employment at this school. (Employment under an intern or similar license is not acceptable for candidacy.) **You must meet the three requirements listed above. If you do not meet all three requirements, you are not eligible to use this form and must complete and submit the individual forms. If you are working at a facility that does not require a teaching or school counseling license, you cannot use this form**

Candidate: Write your National Board ID number in the space provided, complete the top part of the form, and **attach a copy of your current, valid state teaching license** (or current, valid state school counseling license if you applied for the ECYA/School Counseling certificate) and any other teaching licenses you have held for the three years of employment. Then give the form to your employer to review, sign, and submit. **If you worked at more than one school in the same state-supported school district, this form must be signed by a District Employment Officer.**

Principal/District Employment Officer _____
 District _____
 School(s) _____
 School Street Address _____
 City _____ State _____ ZIP Code _____

By my signature, I hereby authorize National Board or its designated representative to verify the information provided on this form. I further authorize my employer to release my employment information to National Board for this purpose and hereby release them from any liability related to the issuance of this information. I affirm to National Board that (1) my current employment is at a state-supported school district; (2) I have earned at least a bachelor's degree (or its equivalent) from an accredited institution; and (3) I hold a current, valid state teaching license/certificate (school counseling license if I applied for the ECYA/School Counseling certificate). I also represent that the information on this form is true, and I understand that if I misrepresent or falsify information on this form, National Board Certification® shall be denied or, if granted, revoked.

_____ <i>Signature</i>		_____ <i>Date You Applied for Candidacy</i>
_____ <i>Full Name (Print)</i>	_____ <i>Maiden Name</i>	_____ <i>Last 4 Digits of Your Social Security Number</i>
_____ <i>License/Certificate Number</i>	_____ <i>Date Issued</i>	_____ <i>Expiration Date</i>

Principal OR District Employment Officer: If any of the statements below are not true, then do not sign this form. If the statements below are true, then submit the form to the email address below as soon as possible.

By my signature, I attest that the information on this form is true, and I understand that if I misrepresent or falsify information on this form, National Board Certification shall be denied this candidate or, if granted, revoked.

- The facility listed above is an early childhood, elementary, middle, or secondary school facility.
- The candidate has been employed in this school district for at least three years or the equivalent. See reverse for additional explanation.
- The candidate has held a current, valid state teaching license/certificate during the years employed at this facility (school counseling license if an ECYA/School Counseling candidate). (Employment under an intern or similar license is not acceptable for candidacy.)
- I have the ability and authority to verify employment within the school district.

_____ <i>Signature</i>	_____ <i>Date</i>	_____ <i>Phone</i>
_____ <i>Name (Print)</i>	_____ <i>Title</i>	

Principal/District Employment Officer: Please return this completed form to the candidate.
Candidate: Refer to the *Completing and Submitting Required Forms* section of this document for instruction on how to submit this form.

INSTRUCTIONS FOR DETERMINING YEARS OF EMPLOYMENT

Candidates for National Board Certification (1) are required to submit verification of three years (or the equivalent) of successful teaching (or three years successfully serving as a school counselor if the candidate applied for the ECYA/School Counseling certificate) at one or more early childhood, elementary, middle, or secondary school facilities either located within the United States or at an institution accredited by one of the regional agencies recognized by the U.S. Secretary of Education; and (2) must have held the appropriate valid license/credential during those three years. Time spent in administrative positions, teaching or school counseling at the postsecondary level (community college or university/college), student teaching or in teaching internships (or student practica or school counseling internships), teaching under an intern license, and/or as a teacher's assistant does not count toward the requirement.

Candidates for certificate areas other than ECYA/School Counseling who have taught part time are eligible, provided that they have employment that is the equivalent of three years of teaching. Substitute teachers may count teaching time spent in long-term assignments toward the three years; substitute teaching that consists of short-term or on-call assignments does not accrue toward the three years. The three years of employment must have been completed prior to the candidate's application date as recorded on the front of this form and must have been done under a valid teaching license. Successful teaching means the candidate did not have his/her teaching license suspended or revoked during the period of employment being verified.

Candidates for ECYA/School Counseling who have served as a school counselor part time are eligible, provided that they have school counseling employment that is the equivalent of three years of full-time school counseling. The three years of employment must have been completed prior to the candidate's application date as recorded on the front of this form. Successful service as a school counselor means that the candidate did not have his/her school counseling license suspended or revoked during the period of employment being verified.

Use the matrix below to determine if the employment being verified is the equivalent of three years of teaching or school counseling.

Employment Status	Years of Employment	You are qualified to use this form if...
Full time, partly nonteaching or noncounseling	Multiply the number of years of employment at your facility/district prior to the candidate's application date by the percentage of time spent teaching or school counseling (for example, 6 years \times 50% teaching = 3 years of full-time equivalent teaching employment).	Your calculations result in three years of full-time equivalent teaching or school counseling employment as defined on this form. Be certain that your calculations only include time employed under a valid teaching or school counseling license.
Part time	Multiply the number of years of employment prior to the candidate's application date by the percentage of time the candidate is employed (for example, 4 years \times 75% school counseling = 3 years of full-time equivalent school counseling employment).	
Long-term substitute	Add up the length of the long-term teaching assignments completed at your facility/district prior to your application date.	

If you have questions about how to complete this form, call 1-800-22TEACH (83224).

IF YOU DO NOT MEET THE REQUIREMENTS TO COMPLETE THE CANDIDATE ELIGIBILITY VERIFICATION FORM, YOU MUST COMPLETE AND SUBMIT THE FOLLOWING FORMS:

- **Candidate Education Verification Form**
- **Candidate Employment Verification Form**
- **Candidate License Verification Form**
- **Candidate Workplace Verification Form (if applicable)**

Step 1: Education

You must possess a bachelor's, master's, or doctoral degree from an accredited institution—defined as a university or college that is authorized or accepted by a state as fulfilling the state's educational requirement for initial teaching or school counseling licensure. (Completion of degree requirements without award of a degree is not acceptable verification of the education requirement.) If you hold a degree awarded by an institution outside the United States, you may need to submit proof that the degree is equivalent to at least a bachelor's degree from an accredited institution (see instructions below). Note: Candidates registering for the Career and Technical Education (CTE) certificate are required to hold a bachelor's degree only if their state required one for their current license. If you have applied for the CTE certificate and are not required by your state to hold a bachelor's degree, complete the top half of the form and check the box pertaining to CTE.

Do you possess a bachelor's, master's, or doctoral degree from an accredited institution (or its documented equivalent), awarded prior to the date you applied for candidacy?

- Yes** Complete the Candidate Education Verification Form then **go to Step 2**.
- No** You are not eligible for National Board Certification.
- Yes** I have applied for the Career and Technical Education certificate and a bachelor's degree is not required by my state in order to hold a teaching license.

Candidate Education Verification Form

To complete this form, be sure to do the following:

- Fill in all information above the Educational Institution Officer box.
- Sign the form on the signature line.
- Write your National Board ID number in the space provided.

Then do one of the following:

- Send the form to the educational institution that conferred your bachelor's, master's, or doctoral degree.
OR
- Apply online for degree verification at the National Student Clearinghouse website (www.degreeverify.com), and submit their degree-verification certificate along with your Education Verification Form to National Board. (Any other degree verification service may not be acceptable.) For this option, the educational institution officer does not need to sign the Education Verification Form.
OR
- Submit an official transcript with your Education Verification Form to National Board. For this option, the educational institution officer's signature is not required.

If your degree was awarded by an institution outside the United States and your state determined the equivalency of your degree to issue you a state teaching or school counseling license, you may attach to the form copies of (1) the state's credentialing report and (2) your current license. You will not need to verify equivalency through a National Association of Credential Evaluation Services (NACES) institution. If your state did not do this, you will need to submit transcripts to an organization belonging to NACES and attach the resulting documentation on organization letterhead to the form. Following is a table of NACES organizations. (You can find organization websites and e-mail addresses at the NACES website [www.naces.org/members.htm].)

NATIONAL ASSOCIATION OF CREDENTIAL EVALUATION SERVICES (NACES) MEMBERS

<p>Academic Evaluation Services, Inc. 11700 N 58th Street G & H Tampa, FL 33617 (813) 374-2020 FAX: (813) 374-2023</p>	<p>e-ValReports 10924 Mukilteo Speedway, #290 Mukilteo, WA 98275 (425) 349-5199 FAX: (425) 349-3420</p>	<p>International Academic Credential Evaluators, Inc. PO Box 2465 Denton, TX 76202-2465 (940) 383-7498 FAX: (940) 382-4874</p>
<p>A2Z Evaluations, LLC 216 F Street, #29 Davis, CA 95616 (530) 400-9266</p>	<p>Evaluation Service, Inc. 333 W. North Avenue, #284 Chicago, IL 60610 (847) 477-8569 FAX: (312) 587-3068</p>	<p>International Consultants of Delaware, Inc. 3600 Market Street, Suite 450 Philadelphia, PA 19104 (215) 387-6950 ext. 603 FAX: (215) 349-0026</p>
<p>Center for Applied Research, Evaluations, & Education, Inc. PO Box 18358 Anaheim, CA 92817 (714) 237-9272 FAX: (714) 237-9279</p>	<p>Foreign Academic Credential Service, Inc. PO Box 400 Glen Carbon, IL 62034 (618) 656-5291 FAX: (618) 656-5292</p>	<p>International Education Research Foundation, Inc. PO Box 3665 Culver City, CA 90231-3665 (310) 258-9451 FAX: (310) 342-7086</p>
<p>Education International, Inc. 29 Denton Road Wellesley, MA 02482 (781) 235-7425 FAX: (781) 235-6831</p>	<p>Foreign Educational Document Service PO Box 4091 Stockton, CA 95204 (209) 948-6589</p>	<p>Josef Silny & Associates, Inc. International Education Consultants 7101 SW 102 Avenue Miami, FL 33173 (305) 273-1616 FAX: (305) 273-1338</p>
<p>Educational Credential Evaluators, Inc. PO Box 514070 Milwaukee, WI 53203-3470 (414) 289-3400 FAX: (414) 289-3411</p>	<p>Foundation for International Services, Inc. 14926 35th Avenue West, Suite 210 Lynnwood, WA 98087 (425) 248-2255 FAX: (425) 248-2262</p>	<p>SpanTran: The Evaluation Company 2400 Augusta Drive, Suite 451 Houston, TX 77057 (713) 266-8805 FAX: (713) 789-6022</p>
<p>Educational Perspectives, NFP PO Box 618056 Chicago, IL 60661-8056 (312) 421-9300 FAX: (312) 421-9353</p>	<p>Global Credential Evaluators, Inc. PO Box 9203 College Station, TX 77842-9203 (800) 707-0979 FAX: (512) 388-3174</p>	<p>World Education Services, Inc. PO Box 5087 Bowling Green Station New York, NY 10274-5087 (212) 966-6311 FAX: (212) 739-6100</p>
<p>Educational Records Evaluation Service, Inc. 601 University Avenue, Suite 127 Sacramento, CA 95825 (916) 921-0790 FAX: (916) 921-0793</p>	<p>Global Services Associates, Inc. 409 North Pacific Coast Highway, #393 Redondo Beach, CA 90277 (310) 828-5709 FAX: (310) 828-5709</p>	

WRITE YOUR NATIONAL BOARD ID NUMBER HERE
--

CANDIDATE EDUCATION VERIFICATION FORM

Candidate: Write your National Board ID number in the space provided, complete the top part of this form, and give the form to the educational institution that conferred your bachelor's, master's, or doctoral degree (or its equivalent) for that institution to complete and submit.

University/College _____
 Street Address _____
 City _____ State _____ ZIP Code _____

I have applied for the CTE certificate area and a bachelor's degree is not required by my state in order to hold a teaching license.

By my signature, I hereby authorize the National Board for Professional Teaching Standards® (National Board®) or its designated representative to verify information regarding my educational background as indicated on my application. I further authorize the above-indicated institution to release my educational background information to National Board for this purpose and hereby release them from any liability related to the issuance of this information. I also represent that the information on this form is true, and I understand that if I misrepresent or falsify information on this form, National Board Certification® shall be denied or, if granted, revoked.

<i>Signature</i>	<i>Date You Applied for Candidacy</i>
<i>Name (Print)</i>	<i>Last 4 Digits of Your Social Security Number</i>
<i>Previous Last/Maiden Name</i>	<i>Year of Graduation</i>
<i>Years of Attendance</i>	<i>Degree</i>

Educational Institution Officer: If you are able to verify the following information regarding the candidate, complete the form and submit it to the email address below as soon as possible.			
Degree Type (circle one):	Bachelor's Master's Doctoral	Year Granted _____	
Signature _____	Title _____	Date _____	

Educational Institution Officer: Please return this completed form to the candidate.
Candidate: Refer to the *Completing and Submitting Required Forms* section of this document for instruction on how to submit this form.

Step 2: Employment

You must have completed three years of successful teaching (or successfully served three years as a school counselor if you applied for the ECYA/School Counseling certificate) at one or more early childhood, elementary, middle, or secondary school(s).

- The three years of employment **must have been completed prior to the date you applied for candidacy**.
- The three years of employment must have taken place in one or more facilities located within the United States or accredited by one of the regional agencies recognized by the U.S. Secretary of Education. If employed by a school outside the United States, you must submit a letter from one of these agencies specifying that the school at which you were employed was accredited during the period of your employment. (A list of relevant regional accrediting agencies is provided on page 8.)
- You must have held a valid state license (not an intern or a similar license) during the three years of employment you verify.
- Successful teaching or school counseling, at a minimum, means that your teaching or school counseling license was unencumbered (e.g., not suspended or revoked) during the period of employment being verified.

Administrative/Adult Learner Teaching Positions

If you are a teacher in an administrative position or a teacher who is teaching in the adult learner community, you must be able to provide evidence of three years of classroom teaching (or the equivalent) at the pre-K through 12 level in order to pursue National Board Certification in any certificate area except ECYA/School Counseling.

Part-Time or Substitute Teaching

If you teach part time, you are eligible in any certificate area except ECYA/School Counseling, provided your teaching employment is equivalent to three years of full-time teaching. (For example, if your teaching assignment is 50% of a full-time assignment at your school/district, you must have taught for at least six years.) If you are a substitute teacher, you may count teaching time spent in long-term assignments toward the three years, but not short-term or on-call assignments, provided you did so under a valid state teaching license.

Part-Time School Counseling

If you serve as a school counselor part time, you are eligible to be an ECYA/School Counseling candidate, provided your counseling employment is equivalent to three years of full-time counseling. (For example, if your school counseling assignment is 50% of a full-time assignment at your school/district, you must have served as a school counselor for at least six years.)

The following do *not* count toward the employment requirement:

- Employment as an administrator.
- Student teaching or teaching internships (or student practica or school counseling internships).
- Employment as a teacher's assistant.
- Postsecondary teaching at a community college or university/college. If you teach students over the age of 18, you must teach at the pre-K through 12 level (e.g., vocational classes in a high school setting).
- Employment under an intern or similar teaching license.

Have you completed three years of successful teaching (or three years successfully serving as a school counselor if you applied for the ECYA/School Counseling certificate) at one or more early childhood, elementary, middle, or secondary schools, as defined above?

- Yes** Complete the Candidate Employment Verification Form then **go to Step 3**.
- No** **Stop.** You are not eligible for National Board Certification.

Candidate Employment Verification Form

To complete this form, be sure to do the following:

- Fill in all information above the Principal OR District Employment Officer box.
- Sign on the signature line.
- Write your National Board ID number in the space provided.
- Be sure to record the date you applied for candidacy.
- Send the form to the personnel office of each facility for which you are verifying employment to meet the three-year teaching or school counseling requirement.
- Have each facility complete and submit the form to National Board.
- Be sure to ask for documentation of employment only as a teacher (or only as a school counselor if you applied for the ECYA/School Counseling certificate) at an early childhood, elementary, middle, or secondary school.

Each form should show the length of employment you are verifying from that facility. Do not include information on the form about employment in a nonteaching, noncounseling position (e.g., principal), or at a level outside the range of early childhood through secondary school (e.g., college or university teaching).

If you are verifying employment at an institution outside the United States, you must (1) complete and submit a Candidate Workplace Verification Form for that employer and (2) provide documentation from one of the accrediting agencies recognized by the U.S. Secretary of Education. Following are the two regional accrediting agencies that handle institutions outside the United States.

REGIONAL INSTITUTIONAL ACCREDITING AGENCIES	
Middle States Commission on Higher Education Dr. Elizabeth H. Sibolski, President 3624 Market Street Philadelphia, PA 19104 (267) 284-5000 FAX: (215) 662-5501 E-MAIL: info@msche.org	Western Association of Schools and Colleges, Accrediting Commission for Senior Colleges and Universities Ralph Wolff, President and Executive Director 985 Atlantic Avenue, Suite 100 Alameda, CA 94501 (510) 748-9001 FAX: (510) 748-9797 E-MAIL: wascsr@wascsenior.org

Access http://www2.ed.gov/admins/finaid/accred/accreditation_pg6.html for a complete list. A letter on accrediting agency letterhead must be submitted that specifies the name of the school you are submitting for your employment requirement. If you have questions about employment at a facility outside the United States, please contact National Board at 1-800-22TEACH (83224).

WRITE YOUR NATIONAL BOARD ID NUMBER HERE

CANDIDATE EMPLOYMENT VERIFICATION FORM

Candidate: Write your National Board ID number in the space provided, complete the top part of this form, and give the form to your employer to complete and submit. (You may reproduce this form as needed to send to multiple employers. For every employer that is an institution outside the United States, you will also need to provide a Candidate Workplace Verification Form.) **If you worked at more than one school in the same state-supported school district, this form must be signed by a District Employment Officer.**

Principal/District Employment Officer _____
 District _____
 School Name _____
 Street Address _____
 City _____ State _____ ZIP Code _____

By my signature, I hereby authorize the National Board for Professional Teaching Standards® (National Board®) or its designated representative to verify information regarding my employment background as indicated on my application. I further authorize the above-indicated employer to release my employment information to National Board for this purpose and hereby release them from any liability related to the issuance of this information. I also represent that the information on this form is true, and I understand that if I misrepresent or falsify information on this form, National Board Certification® shall be denied or, if granted, revoked.

Signature _____ Date You Applied for Candidacy _____
 Full Name (Print) _____ Maiden Name _____ Last 4 Digits of Your Social Security Number _____

Principal OR District Employment Officer: Fill in the box of the correct answer to each question. Then complete the form and submit it the email address below as soon as possible.

<p>1. Is this facility an early childhood, elementary, middle, or secondary school? <input type="checkbox"/> Yes <input type="checkbox"/> No (Return this form to the candidate. He/she is not eligible for National Board Certification.)</p> <p>2. Has the candidate been employed at your facility for at least three years as a full-time teacher (or three years as a school counselor if the candidate applied for the ECYA/School Counseling certificate) under a valid state teaching license prior to the candidate's application date as recorded on this form? <input type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>3. Using the chart on the back of this form as a guide, fill in the box below that corresponds to the length of full-time teaching or school counseling employment (or its equivalent) under a valid state teaching license at your school prior to the date (see above) the candidate applied for candidacy.</p> <p><input type="checkbox"/> 0.5 year <input type="checkbox"/> 1.5 years <input type="checkbox"/> 2.5 years</p> <p><input type="checkbox"/> 1.0 year <input type="checkbox"/> 2.0 years <input type="checkbox"/> 3.0+ years</p>
--	---

Signature _____ Date _____
 Title _____ Phone _____

Principal/District Employment Officer: Please return this completed form to the candidate.
Candidate: Refer to the *Completing and Submitting Required Forms* section of this document for instruction on how to submit this form.

INSTRUCTIONS FOR QUESTION 3

Candidates for National Board Certification (1) are required to submit verification of three years (or the equivalent) of successful teaching (or three years successfully serving as a school counselor if the candidate applied for the ECYA/School Counseling certificate) at one or more early childhood, elementary, middle, or secondary school facilities either located within the United States or at an institution accredited by one of the agencies recognized by the U.S. Secretary of Education; and (2) must have held the appropriate valid license/credential during those three years. Time spent in administrative positions, teaching or school counseling at the postsecondary level, student teaching or in teaching internships (or student practica or school counseling internships), teaching under an intern or similar license, and/or as a teacher's assistant does not count toward the requirement.

Candidates for certificate areas other than ECYA/School Counseling who have taught part time are eligible, provided that they have employment that is the equivalent of three years of teaching. Substitute teachers may count teaching time spent in long-term assignments toward the three years; substitute teaching that consists of short-term or on-call assignments does not accrue toward the three years. The three years of employment must have been completed prior to the candidate's application date as recorded on the front of this form and must have been done under a valid teaching license. Successful teaching means the candidate did not have his/her teaching license suspended or revoked during the period of employment being verified.

Candidates for ECYA/School Counseling who have served as a school counselor part time are eligible, provided that they have school counseling employment that is the equivalent of three years of full-time school counseling. The three years of employment must have been completed prior to the candidate's application date as recorded on the front of this form. Successful service as a school counselor means the candidate did not have his/her school counseling license suspended or revoked during the period of employment being verified.

Use the matrix below to determine the proper box to fill in on Question 3.

Employment Status	Years of Employment (Be certain that your calculations only include time employed under a valid teaching or school counseling license.)
Full time	Determine the number of years of employment at your facility prior to the candidate's application date, rounded to the closest half-year.
Full time, partly nonteaching or noncounseling	Multiply the number of years of employment prior to the candidate's application date by the percentage of time spent teaching or school counseling (for example, 6 years \times 50% teaching = 3 years of full-time equivalent teaching employment).
Part time	Multiply the number of years of employment prior to the candidate's application date by the percentage of time the candidate is employed (for example, 4 years \times 75% school counseling = 3 years of full-time equivalent school counseling employment).
Long-term substitute	Add up the length of the long-term teaching assignments completed at your facility prior to the candidate's application date.

If you have questions about how to complete this form, call 1-800-22TEACH (83224).

Step 3: License

You must have held a valid state teaching license (or have met the licensure requirements established by your state for a “school counselor” and held that valid license if you applied for the ECYA/School Counseling certificate) for each of the years of employment you verify in Step 2. Employment under intern or similar licensure does not meet the licensure prerequisite. In addition, your license must have been unencumbered (e.g., not suspended or revoked) during your employment as a teacher or school counselor. If you are currently teaching in a facility that requires a state-issued license, you must hold a valid license from the time of National Board Certification application and throughout your candidacy period.

If part or all of the employment you are verifying in Step 2 was served at a facility in which a state teaching license (or school counseling license if you applied for the ECYA/School Counseling certificate) was not required, you should use the Candidate Workplace Verification Form to document that employment.

Were you required by the state to have a valid teaching license (or school counseling license if you applied for the ECYA/School Counseling certificate) for the years of employment in Step 2?

Yes

Did you hold a valid teaching license (or school counseling license if you applied for the ECYA/School Counseling certificate), not an intern or similar license, for the years of employment, as required by your state?

Yes If you also meet the education and employment requirements defined in Steps 1 and 2, you are eligible to pursue National Board Certification. Go to the next section. Complete and submit the Candidate License Verification Form with a copy of your teaching license.

No **Stop.** You are not eligible for National Board Certification

No

Was the facility in which you taught for the years of employment approved by the state to operate?

Yes If you also meet the education and employment requirements defined in Steps 1 and 2, you are eligible to pursue National Board Certification. Go to the next section. Complete and submit the Candidate License Verification Form; fill out the top portion of the Candidate Workplace Verification Form and give it to your employer to complete and submit to National Board.

No **Stop.** You are not eligible for National Board Certification.

Candidate License Verification Form

To complete this form, be sure to do the following:

- Provide the correct information as instructed on the form.
- Sign on the signature line.
- Write your National Board ID number in the space provided.
- Attach a copy of your teaching or school counseling license(s).

If you are verifying employment at one or more facilities that did not require you to hold a state teaching/school counseling license/certificate, see the instructions for the Candidate Workplace Verification Form.

WRITE YOUR NATIONAL BOARD ID NUMBER HERE

CANDIDATE LICENSE VERIFICATION FORM

Candidate: Write your National Board ID number in the space provided, check the box with the correct answer to Question 1, and follow the instructions to complete the form.

1. Did you hold a valid teaching license/certificate (or school counseling license if applying for the ECYA/School Counseling certificate) for the three years of employment indicated on your Candidate Employment Verification Form(s)? Employment under an intern or similar license does not count toward the three-year requirement.
 - Yes** (Skip Question 2. Complete the rest of the form and **submit a copy of your current teaching or school counseling license with this form.**) If more than one license was held for the three years of employment indicated on your Candidate Employment Verification Form(s), submit copies of all that were applicable.
 - No** (Go to Question 2. Complete the rest of the form and submit it. You will also need to submit the Candidate Workplace Verification Form to document that you were not required to hold a valid state license (or school counseling license if you applied for the ECYA/School Counseling certificate) for all or part of the employment you are verifying.
2. A valid teaching/school counseling license/certificate was not required by my place of employment for the following reason(s):
 - Early childhood/pre-K facility
 - Private school
 - School outside the United States
 - Other _____

By my signature, I affirm that the information on this form is true and I understand that if I misrepresent or falsify information on this form, National Board Certification® shall be denied or, if granted, revoked; that my attached license was valid for the three years of employment listed on my Candidate Employment Verification Form; and that the copy of my teaching or school counseling license attached to this form is a true copy of the original and has not been altered in any way.

<i>Signature</i>	<i>Date</i>
<i>Name (Print)</i>	<i>Last 4 Digits of Your Social Security Number</i>
<i>Previous Last/Maiden Name</i>	<i>Dates Covered by License</i>

Candidate: Refer to the *Completing and Submitting Required Forms* section of this document for instruction on how to submit this form.

WRITE YOUR NATIONAL BOARD ID NUMBER HERE

CANDIDATE WORKPLACE VERIFICATION FORM

Candidate: Use this form only if the facility documented on your Employment Verification Form is a private school and you are not required to hold a teaching license (or school counseling license if you applied for the ECYA/School Counseling certificate), or if your employer is an institution outside the United States. Write your National Board ID number in the space provided, complete the top portion of the form, and give the form to your employer to complete and submit. (You may reproduce the form as needed to send to multiple employers.)

Name _____

School/Facility _____

Street Address _____

City _____ State _____ ZIP Code _____

Personnel Office: Check the box with the correct answer and follow the instructions. If answering "Yes," complete and sign the form and submit it to the email address below as soon as possible.

Is your school/facility recognized and approved to operate by your state (or by one of the recognized regional accrediting agencies if it is an institution outside the United States)?

Yes Attach a copy of the appropriate state license or other official documentation from the state or agency granting permission to operate.

No Return this form to the candidate. He/she is ineligible for National Board Certification.

Signature

Name (Print)

Title

Date

(_____) _____
Phone

Personnel Office: Please return this completed form to the candidate.
Candidate: Refer to the *Completing and Submitting Required Forms* section of this document for instruction on how to submit this form.