

Support for College- and Career-Readiness Standards

ENGLISH LANGUAGE ARTS AND MATHEMATICS GRADES 3-5





West Virginia Board of Education 2018-2019

David G. Perry, President **Miller L. Hall**, Vice President **Thomas W. Campbell, CPA**, Financial Officer

F. Scott Rotruck, Member Debra K. Sullivan, Member Frank S. Vitale, Member Joseph A. Wallace, J.D., Member Nancy J. White, Member James S. Wilson, D.D.S., Member

Carolyn Long, Ex Officio Interim Chancellor West Virginia Higher Education Policy Commission

Sarah Armstrong Tucker, Ed.D., Ex Officio Chancellor West Virginia Council for Community and Technical College Education

> **Steven L. Paine, Ed.D.,** Ex Officio State Superintendent of Schools West Virginia Department of Education

Table of Contents

Introduction	2
Navigating the Document	3
Numbering of ELA Standards	
Support for English Language Arts Standards	
Grade 3	
Grade 4	19
Grade 5	35
Support for Mathematics Standards	51
Grade 3	51
Grade 4	62
Grade 5	73

Introduction

Support for College- and Career-Readiness Standards: English Language Arts and Mathematics 3-5 is a companion document to the West Virginia College- and Career-Readiness Standards.

This document prepares students for study of the grade-level standards through the teaching of prerequisite and enabling skills necessary for mastering each standard. **This allows students to work toward grade-level and course content standards while working at individual ability levels.** By identifying the prerequisite and enabling skills for each standard, teachers may plan instruction **to address the achievement gap.**

Support for College- and Career-Readiness Standards: English Language Arts and Mathematics 3-5 provides short-term objectives to help students reach grade-level standards. Educators are encouraged to use the support document to:

- · Write annual Individualized Education Program (IEP) goals
- Design targeted interventions
- · Write learner objectives
- · Develop lesson plans
- · Plan for instructional grouping
- · Plan for parent communication and conferences
- Prepare students for mastery of state standards

This document helps educators recognize what students are able to do in relation to the grade-level standards in order to help them move toward explicit success criteria.

Educators are reminded that content standards indicate minimum content—what all students should know and be able to do by the end of each grade level or course. Local education agencies (LEAs) may have additional instructional or achievement expectations and may provide instructional guidelines that address content sequence, review, and remediation.

Navigating the Document

The West Virginia College-and Career-Readiness Standards (WV CCRS) will be listed by domain on the left-hand side of each page. The right-hand column labeled "Can this student…?" lists suggested supports or steps that a student might need to accomplish prior to mastering the grade-level standard.

The bullet at the top of this list is generally the skill closest to the grade-level standard. If a student is unprepared to demonstrate the skill at the top of the list, the teacher should continue to move down the list of suggestions until he or she identifies what that student is able to do. The bulleted list can be thought of as a ladder; starting at the bottom, educators help the student step up each rung until they are ready to demonstrate mastery of the grade-level standard. It is important to remember the pre-requisite skills are **not meant to replace** the grade-level standard nor are they a "break-down" of the standard itself

For example, if a student has not yet mastered WV CCRS ELA 1.1, "Ask and answer questions about key details in a literary text," the teacher should look to the first bullet listed to the right under "Can this student...?" The teacher would ask "Can this student use language to express ideas and ask questions in complete sentences?" If not, move to the next bullet: "Can this student identify question words and know how to apply them to ask questions?" Continue down the list until the teacher finds an appropriate starting point for instruction.

Cluster	Key Ideas and Details	Can this student?
ELA.1.1	Ask and answer questions about key details in a literary text.	 Use language to express ideas and ask questions in complete sentences Identify question words and know how to apply them to ask questions Use picture details in context to tell what happens in literary text Listen with comprehension

^{*}Note for educators writing IEP goals:

Goals should address student's unique needs across the content areas and should link to the West Virginia College- and Career-Readiness Standards so that a student has the foundation or precursor skills and strategies needed to access and progress in the general education curriculum. Keep in mind that the standards themselves are generally not stated in measurable terms and cannot be substituted for individually developed goals. Rather, the annual goal should focus on what is needed for the student to learn and attain the grade-level standard.

Numbering of ELA Standards

The following English language arts standards will be numbered continuously. The ranges in the chart below relate to the clusters found within the English language arts domains:

Early Learning Foundations	
Fluency	Foundation I
Phonics and Word Recognition	Foundation II
Handwriting	Foundation III
Phonological Awareness	Foundation IV
Print Concepts	Foundation V
Reading	
Key Ideas and Details	Standards 1-6
Craft and Structure	Standards 7-12
Integration of Knowledge and Ideas	Standards 13-17
Range of Reading and Text Complexity	Standards 18-19
Writing	
Text Types and Purposes	Standards 20-22
Production and Distribution of Writing	Standards 23-25
Research to Build and Present Knowledge	Standards 26-28
Range of Writing	Standard 29
Speaking & Listening	
Comprehension and Collaboration	Standards 30-32
Presentation of Knowledge and Ideas	Standards 33-35
Language	
Conventions of Standard English	Standards 36-37
Knowledge of Language	Standard 38
Vocabulary Acquisition and Use	Standards 39-41

Support for English Language Arts Standards

Grade 3

All West Virginia teachers are responsible for classroom instruction that integrates content standards, learning skills, and technology tools. Students in third grade will continue enhancing skills in a developmentally-appropriate progression of standards. Following the skill progressions from second grade, the following chart represents the components of literacy that will be developed in the reading, writing, speaking/listening, and language domains in third grade:

Early Learning Foundations

- · Read with accuracy, appropriate rate, and expression.
- Use word analysis skills and phonics to decode words.
- · Begin cursive writing.

Begin cursive writing.	
Reading	Writing
 Read closely to find main ideas and supporting details in a story. Describe the logical connection between particular sentences and paragraphs in stories (e.g., first, second, and third; cause and effect). Compare the most important points and key details presented in two books on the same topic. 	 Write opinions or explanations that group related information and develop topics with facts and details. Write stories that establish a situation and include details and clear sequences of events that describe the actions, thoughts, and feelings of characters. Independently conduct short research projects that build knowledge about various topics.
Speaking/Listening	Language
 Paraphrase and respond to information presented in discussions, such as comparing and contrasting ideas and analyzing 	Write complete sentences with correct capitalization and spelling.Relate words that are common in reading

to words with similar meanings (synonyms)

and to their opposites (antonyms).

Grades 2-3 Specifications

particular points.

In grades 2-3, students should be exposed to texts that fall in the 420-820 Lexile range in order to meet college- and career-readiness expectations. By the end of the programmatic level (grade 3) and over the course of the entire instructional day, the distribution of text types should include 50% literary and 50% informational, and writing types should be 30% argumentative, 35% informative, and 35% narrative.

evidence that speakers use to support

Report orally on a topic or telling a story

with enough facts and details.

Early Learning Foundations

Cluster	Fluency	Can this student?
ELA.3.I	 Read with sufficient accuracy and fluency to support comprehension. Read on-level text with purpose and understanding. Read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings. Use context to confirm or self-correct word recognition and understanding, rereading as necessary. 	 Read common high frequency words Accurately blend and read CVC words/ word patterns Recognize fluent reading
Cluster	Phonics and Word Recognition	Can this student?
ELA.3.II	 Know and apply grade-level phonics and word analysis skills in decoding words. Identify and know the meaning of the most common prefixes and derivational suffixes. Decode words with common Latin suffixes. Decode multi-syllable words. Read grade-appropriate irregularly spelled words. 	 Understand that prefixes and suffixes can change the meaning of a word Decode one- and two-syllable words Segment words with long and short

		r	
Cluster	Handwriting	Can th	nis student?
ELA.3.III	Write legibly in cursive or joined italics,	• P	Properly form letters using correct
	allowing margins and correct spacing	te	echnique in cursive
	between letters in a word and words in a	• P	Properly form letters using correct
	sentence.	l te	echnique in print

letters that differ

words by identifying the sounds of the

Reading

Cluster	Key Ideas and Details	Can this student?
ELA.3.1	Ask and answer questions to demonstrate understanding of a literary text, referring explicitly to the text as the basis for the answers.	 Ask and answer questions about key details in a textUse language to express ideas in complete sentences (with support of sentence stems as needed) Respond to a question verbally or by using gestures Use picture details in context to tell what happens in a literary text Listen with comprehension
ELA.3.2	Recount stories, including fables, folktales, and myths from diverse cultures; determine the central message, lesson, or moral and explain how it is conveyed through key details in the literary text.	 Retell stories, including key details and demonstrate understanding of their central message or lesson Understand that stories contain a central message or lesson Sequence pictures from a story Match pictures that relate to the story
ELA.3.3	Describe characters in a literary story (e.g., their traits, motivations, or feelings) and explain how their actions contribute to the sequence of events.	 Describe how characters in a story respond to major events and challenges Define traits and motivation Describe characters, settings and major events in a story, using key details Define and identify the characters, setting, and major events in a story
ELA.3.4	Ask and answer questions to demonstrate understanding of an informational text, referring explicitly to the text as the basis for the answers.	 Ask and answer who, what, where, when, why, and how to demonstrate understanding of key details in a text Respond to a question verbally or by using gestures Identify question words and know how to apply them to ask questions Use picture details in context to tell what happens in an informational text Listen with comprehension
ELA.3.5	Determine the main idea of an informational text; recount the key details and explain how they support the main idea.	 Recall supporting details Identify the main topic of a specific paragraph

		1	
ELA.3.6	Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in an informational text, using language that pertains to time, sequence, and cause/effect.		Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in an informational text Understand cause and effect Respond to questions about connections between two real-life people, objects or actions in pictures Describe and identify pictures of people, objects and actions

Cluster	Craft and Structure	Can this student?
ELA.3.7	Determine the meaning of words and phrases as they are used in a literary text, distinguishing literal from nonliteral language.	 Understand and identify literal and non-literal language Describe how words and phrases (e.g., regular beats, alliteration, rhymes, repeated lines) supply rhythm and meaning in a story, poem, or song Identify words and phrases in stories or poems that suggest feelings or appeal to the senses
ELA.3.8	Refer to parts of stories, dramas, and poems when writing or speaking about a literary text, using terms such as chapter, scene, and stanza; describe how each successive part builds on earlier sections.	 Describe the overall structure of a story, including describing how the beginning introduces the story and the ending concludes the action Understand and identify scene, stanza, and drama Identify the beginning, middle and end of a story Sequence events
ELA.3.9	Distinguish one's point of view from that of the narrator or those of the characters in a literary text.	 Define point of view Match the feelings and/or senses to the character or narrator at different points in the story Identify words and phrases in stories or poems that suggest feelings or appeal to the senses Identify who is telling the story at various points in a text Match characters to their roles in a story Identify the narrator, characters, settings, and major events from the story

ELA.3.10 ELA.3.11	Determine the meaning of general academic and domain-specific words and phrases in an informational text relevant to a <i>grade 3 topic or subject area</i> . Use informational text features and search tools (e.g., key words, sidebars, and hyperlinks) to locate information relevant to a given topic efficiently	 Ask and answer questions to help determine or clarify the meaning of words or phrases in a text Determine features in the text that help locate important information about what you are reading. Example: heading, glossary, bold words Use new vocabulary in connection with prior life or educational experience Ask and answer questions about unfamiliar/unknown words in the texts Connect new vocabulary with prior educational and/or real-life experiences Use text features to gather and locate information in a text Understand and use text features Locate various text features
ELA.3.12	Distinguish one's own point of view from that of the author of an informational text.	 Identify the main purpose of a text, including what the author wants to answer, explain, or describe Compare points of view on topics or issues with a classmate Understand point of view and author's purpose
Cluster	Integration of Knowledge and Ideas	Can this student?
ELA.3.13	Explain how specific aspects of a literary text's illustrations contribute to what is conveyed by the words in a story (e.g., create mood or emphasize aspects of a character or setting).	 Use illustrations and details in a story to describe its characters, settings and plot Describe the relationship between illustrations and the story in which they appear Sequence the events in a story Identify characters, settings and major events in a story Identify characters, setting and mood from an illustration Understand and apply illustration and mood
ELA.3.14	Compare and contrast the themes, settings, and plots of literary stories written by the same author about the same or similar characters (e.g., in books from a series).	 Identify the similarities and differences in the stories Understand and apply theme, characters, setting, and plot in story Understand the concepts of same and different

different

ELA.3.15	Use information gained from illustrations (e.g., maps or photographs) and the words in an informational text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur).	 Use diagrams, charts and other specific images to gain information from a text Locate diagrams, charts, and other specific images to gain information from a text Distinguish between information provided by pictures or other illustrations and information provided by the words in a text
ELA.3.16	Describe the logical connection between particular sentences and paragraphs in an informational text (e.g., comparison, cause/effect, or first/second/third in a sequence).	 Describe how reasons support specific points the author makes in a text Identify the reasons an author gives to support points in a text Sequence events in a story, including beginning and ending
ELA.3.17	Compare and contrast the most important points and key details presented in two informational texts on the same topic.	 Understand and describe basic similarities and differences between key details in two texts on the same topic Answer questions about text(s) Understand concepts of same and different
Cluster	Range of Reading and Text Complexity	Can this student?
ELA.3.18	By the end of the year, read and comprehend literature, including stories, dramas and poetry, at the high end of the grades 2–3 text complexity range independently and proficiently.	 Read and comprehend literature approaching or at the low end of the grades 2-3 text complexity range Read stories, drama and poetry aloud to demonstrate fluency of grade level texts Listen to stories, drama and poetry read aloud
ELA.3.19	By the end of the year, read and comprehend informational texts, including social studies, science, and technical texts, at the high end of the grades 2–3 text complexity range independently and proficiently.	 Read and comprehend informational text approaching or at the low end of the grades 2-3 text complexity range Read informational texts aloud to demonstrate fluency of grade-level texts Listen to informational text read aloud

Writing

Cluster	Text Types and Purposes	Can this student?
ELA.3.20	 Write opinion pieces on topics or texts, supporting a point of view with reasons. Introduce the topic or text being discussed, state an opinion, and create an organizational structure that lists reasons. Provide reasons that support the opinion. Use linking words and phrases (e.g., because, therefore, since, or for example) to connect opinion and reasons. Provide a concluding statement or section. 	 Communicate opinion and reasons through written language Write simple and complex sentences that convey meaning using linking words Conclude thoughts Communicate opinion to an audience through verbal expression Provide reasoning to support opinion on a topic Express an opinion on a given topic Differentiate between fact and opinion Identify a topic Write sentences with correct capitalization and punctuation
ELA.3.21	 Write informative/explanatory texts to examine a topic and convey ideas and information clearly. Introduce a topic and group related information together; include illustrations when useful to aid comprehension. Develop the topic with facts, definitions, and details. Use linking words and phrases (e.g., also, another, and, more, or but) to connect ideas within categories of information. Provide a concluding statement or section. 	 Communicate information through written language Write simple and complex sentences using linking words Conclude thoughts Communicate information to an audience through verbal expression Express key details orally Identify details in an illustration Identify a topic Write sentences with correct capitalization and punctuation

Write narratives to develop real or imagined
experiences or events using effective
technique, descriptive details, and clear
event sequences.

- Establish a situation and introduce a narrator and/or characters; organize an event sequence that unfolds naturally.
- Use dialogue and descriptions of actions, thoughts, and feelings to develop experiences and events or show the response of characters to situations.
- Use transitional words and phrases to signal event order.
- Provide a sense of closure.

- Write a story with a clear beginning, middle, and end
- Write dialogue using quotation marks accurately
- Write a descriptive sentence about a real or imaginary experience or event
- Sequence events in the order in which they occurred
- Understand narrative, closure, dialogue, temporal words, and descriptive details in text
- Use correct capitalization and punctuation

Cluster	Production and Distribution of Writing	Can this student?
ELA.3.23	With guidance and support from adults, produce writing in which the development and organization are appropriate to task and purpose. (Grade-specific expectations for writing types are defined in Text Types and Purposes.)	 Organize sentences into a paragraph to address a topic or tell a story using a variety of sentences Determine purpose and audience prior to writing. Write a complete sentence using correct spelling, capitalization, and punctuation
ELA.3.24	With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing. (Editing for conventions should demonstrate command of Language standards up to and including grade 3).	 Focus on a topic, respond to questions and suggestions from peers, and add details to strengthen writing as needed Dictate details to strengthen the topic Organize sentences into a paragraph to address a topic or tell a story Engage in discussions with peers and adults on given topic Use details to strengthen oral descriptions of everyday experiences
ELA.3.25	With guidance and support from adults, use technology to produce and publish writing (using keyboarding skills) as well as to interact and collaborate with others.	 Use keyboarding and other types of technology to produce writing Engage with a variety of digital tools to produce and publish writing

Cluster	Research to Build and Present Knowledge	Can this student?
ELA.3.26	Conduct short research projects that build knowledge about a topic.	 Record found information Communicate information to an audience through verbal expression and written language Generate oral and written questions to gather information about topic Locate information about a topic using various resources (i.e., print, digital reference materials) Recall and share knowledge from own background
ELA.3.27	Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.	 Record and sort information Recall information to answer a question Discuss common experiences Respond to questions with a complete thought Recall knowledge from their own background
ELA.3.28	(Begins in grade 4.)	

Cluster	Range of Writing	Can this student?	
ELA.3.29	Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of disciplinespecific tasks, purposes, and audiences.	anchor charts, tParticipate in sh	nided writing (e.g., eacher modeling) ared writing (e.g., ence stories, chart

Speaking & Listening

Cluster	Comprehension and Collaboration	Can this student?
ELA.3.30	 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing ideas clearly. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, and speaking one at a time about the topics and texts under discussion). Ask questions to check understanding of information presented, stay on topic, and link comments to the remarks of others. Explain ideas and understanding in light of the discussion. 	 Continue a conversation through multiple exchanges Use language to express ideas in complete sentences to contribute to conversations Ask questions to check understanding of information received Listen with comprehension and follow two-step directions Listen with comprehension and follow one-step directions Nod or use facial expressions to indicate the answer to a question
ELA.3.31	Determine the main ideas and supporting details of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.	 Recount or describe key ideas or details from a text read aloud or information presented orally or through other media Ask and answer questions about key details in a text read aloud or information presented orally or through other media Locate captions, illustrations, tables, and photographs to extend meaning of written text Identify key ideas from texts
ELA.3.32	Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.	 Use questions to gain a deeper understanding of information given Ask questions to gather unknown information Self-monitor to recognize more information is needed

Cluster	Presentation of Knowledge and Ideas	Can this student?
ELA.3.33	Report on a topic or text; tell a story or recount an experience with appropriate facts and relevant, descriptive details, speaking audibly and coherently.	 Express ideas and feelings clearly using relevant information (i.e., people, places, things, events) Use descriptive words Identify details in informational or literary texts that support the main topic Communicate details in everyday experiences Identify details in everyday experiences
ELA.3.34	Create engaging audio recordings of stories or poems that demonstrate fluid reading at an understandable pace; add visual displays when appropriate to emphasize or enhance certain facts or details.	 Use illustrations and/or audio recordings to enhance writing Communicate details through visual displays
ELA.3.35	Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification.	 Produce complete sentences verbally to provide information or answers to questions Write complete sentences to provide information or answers to questions Produce spoken sentences that increase in length and grammatical complexity Use four-to-five word phrases when appropriate to task and situation Use two-to-three word phrases when appropriate to task and situation Use single words appropriate to task and situation

Language

Cluster	Conventions of Standard English	Can this student?
ELA.3.36	 Demonstrate command of the conventions of Standard English grammar and usage when writing or speaking. Explain the function of nouns, pronouns, verbs, adjectives, and adverbs in general and their functions in particular sentences. Form and use regular and irregular plural nouns. Use abstract nouns (e.g., childhood). Form and use regular and irregular verbs. Form and use the simple (e.g., I walked; I walk; I will walk) verb tenses. Ensure subject-verb and pronounantecedent agreement. Form and use comparative and superlative adjectives and adverbs, and choose between them depending on what is to be modified. Use coordinating and subordinating conjunctions. Produce simple, compound, and complex sentences. 	 Understand the difference between simple, compound, and complex sentences Understand coordinating and subordinating conjunctions Understand comparative and superlative adjectives and adverbs Understand and apply subject-verb and pronoun-antecedent agreement Understand and apply possessive, personal, indefinite nouns, adjectives, and adverbs Use frequently occurring adjectives, conjunctions, and prepositions Identify nouns, pronouns, verbs, adjectives, and adverbs in general and their functions in sentences Identify and use verb tenses

ELA.3.37	Demonstrate command of the conventions of Standard English capitalization, punctuation, and spelling when writing.
	Capitalize appropriate words in titles.Use commas in addresses.

- Use commas and quotation marks in dialogue.
- Form and use possessives.
- Use conventional spelling for highfrequency and other studied words and for adding suffixes to base words (e.g., sitting, smiled, cries, or happiness).
- Use spelling patterns and generalizations (e.g., word families, position-based spellings, syllable patterns, ending rules, and meaningful word parts) in writing words.
- Consult reference materials, including beginning dictionaries, as needed to check and correct spellings.

- Write simple and compound sentences with correct punctuation, capitalization and spelling when writing with/or without support
- Use reference materials
- Use apostrophes, commas, and punctuation in a sentence correctly
- Recognize proper nouns and capitalize them within a sentence
- Recognize when to use appropriate punctuation marks (i.e., period, question mark, exclamation mark)
- Identify punctuation marks
- Identify the parts of a sentence (i.e., beginning of the sentence and end of the sentence)
- Fluently read sight words
- Spell untaught words phonetically

Cluster	Knowledge of Language	Can this student?
ELA.3.38	 Use knowledge of language and its conventions when writing, speaking, reading, or listening. Choose words and phrases for effect. Recognize and observe differences between the conventions of spoken and written Standard English. 	 Compare formal and informal uses of English Read across various authors and genres Use formal language when writing and speaking Identify phrases and words that are effective in various texts

Cluster	Vocabulary Acquisition and Use	Can this student?
ELA.3.39	 Determine or clarify the meaning of unknown and multiple-meaning word and phrases based on grade 3 reading and content, choosing flexibly from a range of strategies. Use sentence-level context as a clue to the meaning of a word or phrase. Determine the meaning of the new word formed when a known affix is added to a known word (e.g., agreeable/disagreeable, comfortable/uncomfortable, care/careless, and heat/preheat). Use a known root word as a clue to the meaning of an unknown word with the same root (e.g., company and companion). Use glossaries or beginning dictionaries, both print and digital, to determine or clarify the precise meaning of key words and phrases. 	 Use context clues to identify the meaning of a word Fluently read and comprehend complex sentences with or without pictures State the definition of common prefixes and affixes Read unknown vocabulary words below and on grade level Identify that inflections and affixes change the meaning of words e.g., unhappy has a different meaning than happy because of the suffix un- Locate root words Identify unknown words in sentence phrases Engage in conversation using frequently occurring affixes and prefixes Connect meaning to familiar words using pictures
ELA.3.40	 Demonstrate understanding of word relationships and nuances in word meanings. Distinguish the literal and nonliteral meanings of words and phrases in context (e.g., take steps). Identify real-life connections between words and their use (e.g., describe people who are friendly or helpful). Distinguish shades of meaning among related words that describe states of mind or degrees of certainty (e.g., knew, believed, suspected, heard, and wondered). 	 Identify, sort and match pictures to demonstrate and distinguish the relationship between everyday words and their meaning Understand that figurative language is used within a text to add interest Use pictures to demonstrate how words can be described differently Identify multi-meaning words
ELA.3.41	Acquire and accurately use grade- appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and transitional relationships (e.g., after dinner that night we went looking for them).	 Connect new vocabulary with prior educational experiences Use new and challenging vocabulary words correctly within personal or classroom experiences Engage in conversation accurately utilizing adjectives and adverbs to describe

Support for English Language Arts Standards

Grade 4

All West Virginia teachers are responsible for classroom instruction that integrates content standards, learning skills, and technology tools. Students in fourth grade will continue enhancing skills in a developmentally-appropriate progression of standards. Following the skill progressions from third grade, the following chart represents the components of literacy that will be developed in the reading, writing, speaking/listening, and language domains in fourth grade:

Early Learning Foundations

- Read with accuracy, appropriate rate, and expression.
- Use word analysis skills and phonics to decode words.
- Write in cursive.

Reading Writing

- Describe the basic elements of stories such as characters, events, and settings by drawing on specific details in the text.
- Pay close attention to key features of informational books and articles. These include understanding the main and supporting ideas; being able to compare and contrast information; and explaining how the author uses facts, details, and evidence to support particular points.
- Compare ideas, characters, events, and settings in stories and myths from different cultures.

- Write summaries or opinions about topics supported with a set of well-organized facts, details, and examples.
- Independently conduct short research projects on different aspects of a topic using evidence from books and the Internet.

Speaking/Listening

- Paraphrase and respond to information presented in discussions, such as comparing and contrasting ideas and analyzing evidence that speakers use to support particular points.
- Report orally on a topic or telling a story with enough facts and details.
- Write complete sentences with correct capitalization and spelling.

Language

 Relate words that are common in reading to words with similar meanings (synonyms) and to their opposites (antonyms).

Grades 4-5 Specifications

In grades 4-5, students should be exposed to texts that fall in the 740-1010 Lexile range in order to meet college- and career-readiness expectations. By the end of the programmatic level (grade 5) and over the course of the entire instructional day, the distribution of text types should include 50% literary and 50% informational, and writing types should be 30% argumentative, 35% informative, and 35% narrative.

Early Learning Foundations

Cluster	Fluency	Can this student?
ELA.4.I	 Read with sufficient accuracy and fluency to support comprehension. Read on-level text with purpose and understanding. Read on-level prose and poetry orally with accuracy, appropriate rate, and expression. Use context to confirm or self-correct word recognition and understanding, rereading as necessary. 	 Recognize first, second, and third grade sight words independently Recognize common high frequency words Accurately blend and read CVC words/word patterns Recognize fluent reading

Cluster	Phonics and Word Recognition	Can this student?
ELA.4.II	 Know and apply grade-level phonics and word analysis skills in decoding words. Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context. 	 Apply the meaning of root words, the most common prefixes, and derivational suffixes Decode multisyllabic words and words with common Latin suffixes and prefixes Read grade-appropriate irregularly spelled words Distinguish long and short vowels when reading regularly spelled one syllable words Know spelling-sound correspondences for additional common vowel teams Identify words with inconsistent but common spelling-sound correspondences Orally produce single-syllable words by blending sounds (phonemes), including consonant blends Isolate and pronounce initial, medial vowel, and final sounds (phonemes) in spoken single-syllable words

Cluster	Handwriting	Can this student?
ELA.4.III	Write fluidly and legibly in cursive or joined italics.	 Form letters using proper technique in cursive
		Form letters using proper technique in print

Reading

Cluster	Key Ideas and Details	Can this student?
ELA.4.1	Refer to details and examples in a literary text when explaining what the text says explicitly and when drawing inferences from the text.	 Understand inferring Ask and answer questions such as who, what, where, when, why, and how to demonstrate understanding of key details in a text
ELA.4.2	Determine a theme of a story, drama, or poem from details in the literary text; summarize the text.	 Identify theme of a story, drama, or poem Retell stories, including key details, and demonstrate understanding of their central message or lesson Understand that stories contain a central message or lesson Identify the beginning, middle, and end of a story
ELA.4.3	Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the literary text (e.g., a character's thoughts, words, or actions).	 Describe how characters in a story respond to major events and challenges Describe characters, settings and major events in a story, using key details Define and identify characters, setting, and major events in a story

Cluster ELA.4.7	Craft and Structure Determine the meaning of words and phrases as they are used in a literary text, including words that allude to significant characters such as those found in mythology (e.g., herculean).	 Identify the connection between two individuals, events, ideas, or pieces of information in a text Can this student? Define and identify literal and non-literal language
ELA.4.6	Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the informational text.	Understand the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text Identify the connection between two
ELA.4.5	Determine the main idea of an informational text and explain how it is supported by key details; summarize the text.	Use key details to describe main ideaRecall key details of a text
ELA.4.4	Refer to details and examples in an informational text when explaining what the text says explicitly and when drawing inferences from the text.	 Make predictions from text clues to determine main idea and anticipate an ending Ask and answer who, what, where, when, why, and how to demonstrate understanding of key details in a text Complete sentences (with support of sentence stems as needed) Respond to a question verbally or by using gestures Distinguish between a question and a statement Identify question words and know how to apply them to ask questions Use picture details in context to tell what happens in informational text

ELA.4.8	Explain major differences between poems, drama, and prose; refer to the structural elements of poems (e.g., verse, rhythm, and meter) and drama (e.g., casts of characters, settings, descriptions, dialogue, and stage directions) when writing or speaking about a literary text.	 Define and refer to parts of stories, dramas, and poems when writing or speaking about a text, using terms such as chapter, scene, and stanza; describe how each successive part builds on earlier sections Describe how words and phrases (e.g., regular beats, alliteration, rhymes, repeated lines) supply rhythm and meaning in a story, poem, or song. Describe the overall structure of a story Identify a poem, a drama, and a piece of prose Identify the parts of a story (e.g., problem, solution, or plot)
ELA.4.9	Compare and contrast the point of view from which different literary texts are narrated, including the difference between first- and third-person narrations.	 Distinguish one's point of view from that of the narrator or those of the characters in a literary text Understand that a story can be told from different points of view Identify the narrator of a story Define compare and contrast
ELA.4.10	Determine the meaning of general academic and domain-specific words or phrases in an informational text relevant to a grade 4 topic or subject area.	 Ask and answer questions to help determine or clarify the meaning of words or phrases in a text Determine features in the text that help locate important information about the text's topic. (e.g., heading, glossary, bold words) Use new vocabulary in connection to prior life or educational experience Ask and answer questions about unfamiliar/unknown words in the texts Connect new vocabulary with prior educational and/or real-life experiences
ELA.4.11	Describe the overall structure (e.g., chronology, comparison, cause/effect, or problem/solution) of events, ideas, concepts, or information in all or part of an informational text.	 Describe similarities and differences of events and key details in two or more informational texts Use text features to gather and locate information in a text Locate various text features Understand that informational texts have purposeful text features that aid in comprehension

ELA.4.12	Compare and contrast a firsthand and secondhand account of the same event or topic; describe the differences in the focus and information provided in these informational texts.	 Understand, apply, and cite examples of firsthand and secondhand accounts of the same information or topic Identify the main purpose of a text, including what the author wants to answer, explain, or describe Compare points of view on topics or issues with a classmate Understand and apply point of view and author's purpose 	
----------	--	--	--

Cluster	Integration of Knowledge and Ideas	Can this student?
ELA.4.13	Make connections between the text of a story or drama and a visual or oral presentation of the literary text, identifying where specific descriptions and directions in the text are reflected in the visual or oral presentation.	 Describe the relationship between illustrations and the story in which they appear Explain how specific aspects of a text's illustrations contribute to what is conveyed by the words in a story (e.g., create mood, emphasize aspects of a character or setting)
ELA.4.14	Compare and contrast the treatment of similar themes and topics (e.g., opposition of good and evil) and patterns of events (e.g., the quest) in stories, myths, traditional literature, and literary text from different cultures.	 Understand and apply theme, characters, setting, and plot in story Identify similarities and differences in texts
ELA.4.15	Interpret information presented visually orally or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on web pages) and explain how the information contributes to an understanding of the informational text in which it appears.	 Use diagrams, charts, and other specific images to gain information from a text Locate diagrams, charts, and other specific images to gain information from a text Distinguish between information provided by pictures or other illustrations and information provided by the words in a text

ELA.4.16	Explain how an author uses reasons and evidence to support particular points in an informational text.	 Understand and identify supporting details Describe the logical connection between particular sentences and paragraphs in a text
ELA.4.17	Integrate information from two informational texts on the same topic in order to write or speak about the subject knowledgeably.	 Identify and describe basic similarities and differences between key details in two texts on the same topic Communicate knowledge gained from informational texts through written or verbal communication Answer questions about text(s)
Cluster	Range of Reading and Text Complexity	Can this student?
ELA.4.18	By the end of the year read and comprehend literature, including stories, dramas, and poetry, in the grades 4–5 text complexity range proficiently, with scaffolding as needed at the high end of the range.	 Read and comprehend grade level literature at the high end of the grades 2-3 text complexity range independently and proficiently Read and comprehend literature in the grades 2-3 text complexity range, with scaffolding as needed Repeat stories, drama, and poetry read aloud (i.e., demonstrating fluency of grade-level texts) Listen to stories, drama, and poetry read aloud
ELA.4.19	By the end of the year read and comprehend informational texts, including social studies, science and technical texts, in the grades 4–5 text complexity range proficiently, with scaffolding as needed at the high end of the range.	 Read and comprehend grade level informational texts at the high end of the grades 2-3 text complexity range independently and proficiently Read and comprehend informational texts in the grades 2-3 text complexity range, with scaffolding as needed Repeat informational texts (i.e., demonstrating fluency of grade-level texts) Listen to stories, drama, and poetry read aloud

Writing

Cluster	Text Types and Purposes	Can this student?
ELA.4.20	 Write opinion pieces on topics or texts, supporting a point of view with reasons and information. Introduce a topic or text clearly, state an opinion, and create an organizational structure in which related ideas are grouped to support the writer's purpose. Provide reasons that are supported by facts and details. Link opinion and reasons using words and phrases (e.g., for instance, in order to, or in addition). Provide a concluding statement or section related to the opinion presented. 	 Communicate opinion and reasons through written language Write simple and complex sentences that convey meaning using linking words Conclude thoughts Communicate opinion to an audience through verbal expression Provide reasoning to support opinion on a topic Express an opinion on a given topic Differentiate between fact and opinion Identify a topic Write sentences with correct capitalization and punctuation
ELA.4.21	 Write informative/explanatory texts to examine a topic and convey ideas and information clearly. Introduce a topic clearly and group related information in paragraphs and sections; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension. Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic. Link ideas within categories of information using words and phrases (e.g., another, for example, also, or because). Use precise language and domain-specific vocabulary to inform about or explain the topic. Provide a concluding statement or section related to the information or explanation presented. 	 Communicate information through written language Write simple and complex sentences using linking words Use vocabulary specific to topic Conclude thoughts Communicate information to an audience through verbal expression Express key details orally Identify details in an illustration Identify a topic Write sentences with correct capitalization and punctuation

ELA.4.22	Write narratives to develop real or imagined
	experiences or events using effective
	technique, descriptive details, and clear
	event sequences.

- Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally.
- Use dialogue and description to develop experiences and events or show the responses of characters to situations.
- Use a variety of transitional words and phrases to manage the sequence of events.
- Use concrete words and phrases and sensory details to convey experiences and events precisely.
- Provide a conclusion that follows from the narrated experiences or events.

- Write a story with a clear beginning, middle, and end
- Write dialogue using quotation marks accurately
- Write a descriptive sentence about a real or imaginary experience or event
- Sequence events in the order in which they occurred
- Write sentences with correct capitalization and punctuation

Cluster	Production and Distribution of Writing	Can this student?
ELA.4.23	Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in Text Types and Purposes.)	 Organize sentences into a paragraph to address a topic or tell a story using a variety of sentences Determine purpose and audience prior to writing Write a complete sentence using correct spelling, capitalization, and punctuation Write legibly in cursive or print
ELA.4.24	With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing. (Editing for conventions should demonstrate command of Language standards up to and including grade 4.)	 Focus on a topic, respond to questions and suggestions from peers, and add details to strengthen writing as needed Dictate details to strengthen the topic Organize sentences into a paragraph to address a topic or tell a story Define sentence, paragraph, declarative, imperative, interrogative, exclamatory; define the writing process, including draft, revise, edit Engage in discussions with peers and adults on given topic Use details to strengthen oral descriptions of everyday experiences

ELA / 2E	MULL CONTROL TO A CONTROL CONT	A contract c
ELA.4.25	With some guidance and support from	Apply technology skills to create and
	adults, use technology, including the	share writing
	Internet, to produce and publish writing	Use keyboarding and other types of
	as well as to interact and collaborate with	technology to produce writing
	others; demonstrate sufficient command of	Engage with a variety of digital tools to
	keyboarding skills.	produce and publish writing

Cluster	Research to Build and Present Knowledge	Can this student?
ELA.4.26	Conduct short research projects that build knowledge through investigation of different aspects of a topic.	 Communicate information to an audience through verbal expression and written language Record found information Generate oral and written questions to gather information about topic Locate information about a topic using various resources (i.e., print, digital reference materials) Recall and share knowledge from own background
ELA.4.27	Recall relevant information from experiences or gather relevant information from print and digital sources; take notes and categorize information and provide a list of sources.	 Record and sort information Recall information to answer a question Discuss common experiences Respond to questions with a complete thought Recall knowledge from their own background
ELA.4.28	 Draw evidence from literary or informational texts to support analysis, reflection, and research. Apply grade 4 Reading standards to literature (e.g., "describe in depth a character, setting or event in a story or drama, drawing on specific details in the text [e.g., a character's thoughts, words, or actions]."). Apply grade 4 Reading standards to informational texts (e.g., "explain how an author uses reasons and evidence to support particular points in a text."). 	 Apply evidence, analysis, and reflection Develop an outline/graphic organizer of main points for given topic or question Identify supporting details for main idea Develop main idea for written response Classify facts from texts as important/unimportant Identify the relevant information/facts requested in open-ended questions

Cluster	Range of Writing	Can this student?
ELA.4.29	Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of disciplinespecific tasks, purposes, and audiences.	 Write in journals following teacher guidelines (e.g., subject journals, story starters, open-ended questions) Participate in guided writing (e.g. anchor charts, teacher modeling) Participate in shared writing (e.g. language experience stories, chart stories)

Speaking & Listening

Cluster	Comprehension and Collaboration	Can this student?
ELA.4.30	 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 4 topics and texts, building on others' ideas and expressing ideas clearly. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. Follow agreed-upon rules for discussions and carry out assigned roles. Pose and respond to specific questions to clarify or follow up on information and make comments that contribute to the discussion and link to the remarks of others. Review the key ideas expressed and explain ideas and understanding in light of the discussion. 	 Use language to express ideas and understanding in complete sentences to contribute to conversations Continue a conversation through multiple exchanges Ask questions to check understanding of information received Listen with comprehension and follow one-step and two-step directions Nod or use facial expressions to indicate the answer to a question

ELA.4.31	Paraphrase portions of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.	 Use paraphrasing to present information learned in a variety of formats (i.e., visually, quantitatively, orally) Define paraphrase Recount or describe key ideas or details from a text read aloud or information presented orally or through other media Ask and answer questions about key details in a text read aloud or information presented orally or through other media Locate captions, illustrations, tables, and photographs to extend meaning of written text Identify key ideas from texts
ELA.4.32	Identify the reasons and evidence a speaker provides to support particular points.	 Identify a speaker's main points Use questions to gain a deeper understanding of information given Ask questions to gather unknown information Self-monitor to recognize more information is needed
Cluster	Presentation of Knowledge and Ideas	Can this student?
ELA.4.33	Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.	 Tell a story in an organized manner through appropriate verbal communication Express ideas and feelings clearly using relevant information (i.e., people, places, things, events) Use descriptive words Identify details in informational or literary texts that support the main topic Communicate details from everyday experiences
ELA.4.34	Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes.	 Use illustrations and/or audio recordings to enhance writing and presentations Communicate details through visual

displays

ELA.4.35	Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate (e.g., small-group discussion); use formal English when appropriate to task and situation. (See grade 4 Language standards for specific expectations.)	With guidance and support, produce complete sentences when appropriate to task and situation Define discourse and formal/informal English Describe characteristics of formal language Describe characteristics of informal language Produce complete sentences when appropriate to task and situation in order to provide requested detail or clarification Ensure subject-verb and pronounantecedent agreement

Language

Cluster	Conventions of Standard English	Can this student?
ELA.4.36	 Demonstrate command of the conventions of Standard English grammar and usage when writing or speaking. Use relative pronouns (who, whose, whom, which, or that) and relative adverbs (where, when, or why,). Form and use the progressive (e.g., I was walking; I am walking; I will be walking) verb tenses. Use modal auxiliaries (e.g., can, may, or must) to convey various conditions. Order adjectives within sentences according to conventional patterns (e.g., a small red bag rather than a red small bag). Form and use prepositional phrases. Produce complete sentences, recognizing and correcting inappropriate fragments and run-ons. Correctly use frequently confused words (e.g., to, too, and two; there and their). 	 Understand the difference between simple, compound, and complex sentences Understand coordinating and subordinating conjunctions Understand comparative and superlative adjectives and adverbs Understand and apply subject-verb and pronoun-antecedent agreement Understand and apply possessive, personal, indefinite nouns, adjectives, and adverbs Use frequently occurring adjectives, conjunctions, and prepositions Identify nouns, pronouns, verbs, adjectives, and adverbs in general and in their functions in sentences Identify and use verb tenses

ELA.4.37	 Demonstrate command of the conventions of Standard English capitalization, punctuation, and spelling when writing. Use correct capitalization. Use commas and quotation marks to mark direct speech and quotations from a text. Use a comma before a coordinating conjunction in a compound sentence. Spell grade-appropriate words correctly, consulting references as needed. 	 Write simple with correct and spelling without support without support without support with the model of the

ELA.4.37	 Demonstrate command of the conventions of Standard English capitalization, punctuation, and spelling when writing. Use correct capitalization. Use commas and quotation marks to mark direct speech and quotations from a text. Use a comma before a coordinating conjunction in a compound sentence. Spell grade-appropriate words correctly, consulting references as needed. 	 Write simple and compound sentences with correct punctuation, capitalization, and spelling when writing with/or without support Use apostrophes, commas, and punctuation in a sentence correctly Recognize proper nouns and capitalize them within a sentence Recognize when to use appropriate punctuation marks (i.e., period, question mark, exclamation mark) Identify punctuation marks Identify the parts of a sentence (i.e., beginning of the sentence and end of the sentence) Fluently read sight words Generalize learned spelling patterns when writing words Use conventional spelling for words with common spelling patterns and for frequently occurring irregular words Differentiate between initial, medial, and final sounds in spoken CVC words Spell untaught words phonetically, drawing on phonemic awareness and spelling conventions Form uppercase and lowercase letters in cursive or manuscript
----------	---	---

Cluster	Knowledge of Language	Can this student?
ELA.4.38	 Use knowledge of language and its conventions when writing, speaking, reading, or listening. Choose words and phrases to convey ideas precisely. Choose punctuation for effect. Differentiate between contexts that call for formal English (e.g., presenting ideas) and situations where informal discourse is appropriate (e.g., small-group discussion). 	 Understand and apply conventions of language Compare formal and informal uses of English Use appropriate grammar and vocabulary

Cluster	Vocabulary Acquisition and Use	Can this student?
ELA.4.39	 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 4 reading and content, choosing flexibly from a range of strategies. Use context (e.g., definitions, examples, or restatements in text) as a clue to the meaning of a word or phrase. Use common, grade-appropriate Greek and Latin affixes and roots as clues to the meaning of a word (e.g., telegraph, photograph, and autograph). Consult reference materials (e.g., dictionaries, glossaries, and/or thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases. 	 Use context clues to identify the meaning of a word Fluently read and comprehend complex sentences with or without pictures State the definition of common prefixes and affixes Read unknown vocabulary words below and on grade level Identify that inflections and affixes change the meaning of words (e.g., unhappy has a different meaning than happy because of the suffix un-) Locate root words Identify unknown words in sentence phrases Engage in conversation using frequently occurring affixes and prefixing Identify meanings for familiar words using pictures Sort concepts or words
ELA.4.40	 Demonstrate understanding of figurative language, word relationships, and nuances in word meanings. Explain the meaning of simple similes and metaphors (e.g., as pretty as a picture) in context. Recognize and explain the meaning of common idioms, adages, and proverbs. Demonstrate understanding of words by relating them to their opposites (antonyms) and to words with similar but not identical meanings (synonyms). 	 Apply the meaning of simple similes and metaphors context Understand the meaning of common idioms, adages, and proverbs Demonstrate understanding of words by relating them to their opposites (antonyms) and to words with similar but not identical meanings (synonyms) Understand figurative language, simile, metaphor, idiom, adage, antonym, synonym, and proverb Understand multiple-meaning words and their uses Understand homophones, homonyms, and homographs and their uses Sort words by category and by one or more key attributes (e.g., a duck is a bird that swims; a tiger is a large cat with stripes)

ELA.4.41 Acquire and accurately use grade- appropriate general academic and domain- specific words and phrases, including • Connect new vocabulary with personal life or educational experiences
those that signal precise actions, emotions, or states of being (e.g., quizzed, whined, and stammered) and that are basic to a particular topic (e.g., wildlife, conservation, and endangered when discussing animal preservation).

Support for English Language Arts Standards

Grade 5

All West Virginia teachers are responsible for classroom instruction that integrates content standards, learning skills, and technology tools. Students in fifth grade will continue enhancing skills in a developmentally-appropriate progression of standards. Following the skill progressions from fourth grade, the following chart represents the components of literacy that will be developed in the reading, writing, speaking/listening, and language domains in fifth grade:

Early Learning Foundations

- Read with accuracy, appropriate rate, and expression.
- · Use word analysis skills and phonics to decode words.

Ose Word analysis skills and phornes to deed	ac words.	
Reading	Writing	
 Summarize the key details of stories, dramas, poems, and nonfiction materials, including their themes or main ideas. Identify and judge evidence that supports particular ideas in an author's argument to change a reader's point of view. Integrating information from several print and digital sources to answer questions and solve problems. 	 Write opinions that offer reasoned arguments and provide facts and examples that are logically grouped to support the writer's point of view. Write stories, real or imaginary, that unfold naturally and developing the plot with dialogue, description, and effective pacing of the action. 	

Speaking/Listening

- Come to classroom discussions prepared, then engaging fully and thoughtfully with others (e.g., contributing accurate, relevant information; elaborating on the remarks of others; synthesizing ideas).
- Report on a topic or present an opinion with his or her own words, a logical sequence of ideas, sufficient facts and details, and formal English when appropriate.

Language

- Expand, combine, and reduce sentences to improve meaning, interest, and style of writing.
- Build knowledge of academic words with an emphasis on those that signal a contrast in ideas or logical relationships, such as on the other hand, similarly, and therefore.
- Produce writing on the computer.

Grades 4-5 Specifications

In grades 4-5, students should be exposed to texts that fall in the 740-1010 Lexile range in order to meet college- and career-readiness expectations. By the end of the programmatic level (grade 5) and over the course of the entire instructional day, the distribution of text types should include 50% literary and 50% informational, and writing types should be 30% argumentative, 35% informative, and 35% narrative.

Early Learning Foundations

Cluster	Fluency	Can this student?
ELA.5.I	 Read with sufficient accuracy and fluency to support comprehension. Read on-level text with purpose and understanding. Read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings. Use context to confirm or self-correct word recognition and understanding, rereading as necessary. 	 Recognize first, second, and third grade sight words independently Recognize common high frequency words Accurately blend and read CVC words/ word patterns Recognize fluent reading

Cluster	Phonics and Word Recognition	Can this student?
ELA.5.II	Know and apply grade-level phonics and word analysis skills in decoding words. Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context.	 Understand and apply the meaning of root words, the most common prefixes, and derivational suffixes Decode multisyllabic words and words with common Latin suffixes and prefixes Read grade-appropriate irregularly spelled words Distinguish long and short vowels when reading regularly spelled one syllable words Know spelling-sound correspondences for additional common vowel teams Identify words with inconsistent but common spelling-sound correspondences Orally produce single-syllable words by blending sounds (phonemes), including consonant blends Isolate and pronounce initial, medial vowel, and final sounds (phonemes) in spoken single-syllable words

Reading

Cluster	Key Ideas and Details	Can this student?
ELA.5.1	Quote accurately from a literary text when explaining what the text says explicitly and when drawing inferences from the text.	 Use details in a text when drawing inferences from the text Understand inferencing Refer to the text to answer a question Ask and answer questions to demonstrate understanding of a text
ELA.5.2	Determine a theme of a story, drama, or poem from details in a literary text, including how characters in a story or drama respond to challenges or how the speaker in a poem reflects upon a topic; summarize the text.	 Identify theme of a story, drama, or poem Retell stories, including key details, and demonstrate understanding of their central message or lesson Understand that stories contain a central message or lesson
ELA.5.3	Compare and contrast two or more characters, settings, or events in a story or drama, drawing on specific details in the literary text (e.g., how characters interact).	 Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text Describe characters in a story and explain how their actions contribute to the sequence of events Describe how characters in a story respond to major events and challenges Define and identify the characters, setting, and major events in a story
ELA.5.4	Quote accurately from an informational text when explaining what the text says explicitly and when drawing inferences from the text.	 Use details in a text when drawing inferences from the text Understand inferences Refer to the text to answer a question Identify the passage of text needed to answer a question Ask and answer questions to demonstrate understanding of a text
ELA.5.5	Determine two or more main ideas of an informational text and explain how they are supported by key details; summarize the text.	 Use key details to describe a main idea Identify the main topic and retell key details of a text Identify main topic of a multiparagraph text Identify key details of a text

	·	
ELA.5.6	Using an informational text, explain the relationships or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text based on specific information in the text.	Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text. Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause and effect Identify the connection between a series of historical events, scientific ideas, or concepts, or steps in technical procedures in a text Identify the connection between two individuals, events, ideas, or pieces of information in a text Answer questions about informational texts

Cluster	Craft and Structure	Can this student?
ELA.5.7	Determine the meaning of words and phrases as they are used in a literary text, including figurative language such as metaphors and similes.	 Define and identify literal and non-literal language Identify words and phrases in stories or poems that suggest feelings or appeal to the senses
ELA.5.8	Explain how a series of chapters, scenes, or stanzas fits together in a literary text to provide the overall structure of a particular story, drama, or poem.	 Explain major differences among poems, drama, and prose, and refer to the structural elements of poems (e.g., verse, rhythm, meter) and drama (e.g., casts of characters, settings, descriptions, dialogue, stage directions) when writing or speaking about a text. Refer to parts of stories, dramas, and poems when writing or speaking about a text Describe the overall structure of a story

ELA.5.9	Describe how a narrator's or speaker's point of view influences how events are described in a literary text.	 Distinguish the reader's own point of view from that of the narrator or those of the characters Understand point of view, including the difference between first- and third-person narrations Define narration Identify who is telling a story at different points in a text
ELA.5.10	Determine the meaning of general academic and domain-specific words and phrases in an informational text relevant to a <i>grade 5</i> topic or subject area.	 Determine features in the text that help locate important information about what you are reading (e.g., heading, glossary, bold words) Use new vocabulary in connection to prior life or educational experiences Ask and answer questions about unfamiliar/unknown words in the texts Connect new vocabulary with prior educational and/or real-life experiences
ELA.5.11	Compare and contrast the overall structure (e.g., chronology, comparison, cause/effect, and problem/solution) of events, ideas, concepts, or information in two or more informational texts.	 Describe the overall structure of events, ideas, concepts, or information in all or part of one informational text Use text features to gather and locate information in a text Locate various text features Understand that informational text has purposeful text features that aid in comprehension
ELA.5.12	Analyze multiple accounts of the same event or topic, noting important similarities and differences in the point of view they represent in informational texts.	 Compare and contrast a firsthand and secondhand account of the same event or topic Understand, apply, and cite examples of firsthand and secondhand accounts of the same information or topic Identify the main purpose of a text, including what the author wants to answer, explain, or describe Understand and apply point of view and author's purpose

Cluster	Integration of Knowledge and Ideas	Can this student?
ELA.5.13	Analyze how visual and multimedia elements contribute to the meaning, tone, or beauty of a literary text (e.g., graphic novel, multimedia presentation of fiction, folktale, myth, and/or poem).	 Make connections between the text of a story or drama and a visual or oral presentation of the same text, identifying where each version reflects specific descriptions and directions in the text (e.g., Old Yeller book versus Old Yeller movie) Explain how specific text's illustrations contribute to what is conveyed by the words in a story (e.g., create mood, emphasize aspects of a character or setting) Describe imagery Locate and match illustrations to text
ELA.5.14	Compare and contrast stories in literary texts of the same genre (e.g., mysteries and adventure stories) on their approaches to similar themes and topics.	 Define compare and contrast Identify similarities and/or differences between stories written by the same author about the same or similar characters (e.g., in books from a series) Understand and apply theme, characters, setting, and plot in story Understands concepts of same and different
ELA.5.15	Draw on information from multiple print or digital informational sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.	 Apply use of digital informational sources to answer questions Use diagrams, charts, and other specific images to gain information from a text Locate diagrams, charts, and other specific images to gain information from a text Distinguish between information provided by pictures or other illustrations and information provided by the words in a text

ELA.5.16	Explain how an author uses reasons and evidence to support particular points in an informational text, identifying which reasons and evidence support which point(s).	 Describe the logical connection between particular sentences and paragraphs in a text (e.g., comparison; cause and effect; first, second, third in a sequence). Understand and apply how details support points made by the author in a text Understand how reasons support specific points the author makes in a text
ELA.5.17	Integrate information from several informational texts on the same topic in order to write or speak about the subject knowledgeably.	 Communicate knowledge gained from informational texts through written or verbal communication Identify and describe basic similarities and differences between key details in two texts on the same topic Answer questions about text(s)
Cluster	Range of Reading and Text Complexity	Can this student?
ELA.5.18	By the end of the year, read and comprehend literature, including stories, dramas, and poetry, at the high end of	Read and comprehend literature in the grades 4-5 text complexity band proficiently, with scaffolding as needed Read and comprehend literature at

Cluster	Range of Reading and Text Complexity	Can this student?
ELA.5.18	By the end of the year, read and comprehend literature, including stories, dramas, and poetry, at the high end of the grades 4–5 text complexity range independently and proficiently.	 Read and comprehend literature in the grades 4-5 text complexity band proficiently, with scaffolding as needed Read and comprehend literature at the high end of the grades 2-3 text complexity range independently and proficiently Read and comprehend literature in the grades 2-3 text complexity range proficiently, with scaffolding as needed Practice fluency with grade-level stories, drama and poetry read aloud (e.g., choral reading) Listen to grade-level stories, drama, and poetry read aloud with purpose and understanding

ELA.5.19	By the end of the year, read and comprehend informational texts, including social studies, science, and technical texts, at the high end of the grades 4–5 text complexity range independently and proficiently.	 Read and comprehend informational texts in the grades 4-5 text complexity range proficiently, with scaffolding as needed Read and comprehend informational texts at the high end of the grades 2-3 text complexity range independently and proficiently Read and comprehend informational texts in the grades 2-3 text complexity range proficiently, with scaffolding as needed Practice fluency with grade-level informational text read aloud (e.g., choral reading) Listen to grade-level informational text read aloud with purpose and understanding 	

Writing

Cluster	Text Types and Purposes	Can this student?
ELA.5.20	 Write opinion pieces on topics or texts, supporting a point of view with reasons and information. Introduce a topic or text clearly, state an opinion, and create an organizational structure in which ideas are logically grouped to support the writer's purpose. Provide logically ordered reasons that are supported by facts and details. Link opinion and reasons using words, phrases, and clauses (e.g., consequently and specifically). Provide a concluding statement or section related to the opinion presented. 	 Communicate opinion and reasons through written language Write simple and complex sentences that convey meaning using linking words Communicate opinion to an audience through verbal expression Provide reasoning to support opinion on a topic Express an opinion on a given topic Differentiate between fact and opinion Identify a topic Write sentences with correct capitalization and punctuation

ELA.5.21

Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

- Introduce a topic clearly, provide a general observation, and focus and group related information logically; include formatting (e.g., headings), illustrations, and multimedia when useful to aid comprehension.
- Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.
- Link ideas within and across categories of information using words, phrases, and clauses (e.g., in contrast and especially).
- Use precise language and domainspecific vocabulary to inform about or explain the topic.
- Provide a concluding statement or section related to the information or explanation presented.

- Communicate information through written language
- Write simple and complex sentences using linking words
- Use vocabulary specific to topic
- Conclude thoughts
- Communicate information to an audience through verbal expression
- Express key details orally
- · Identify details in an illustration
- · Identify a topic
- Define topic, fact, opinion, linking words, concluding statement, informative, and explanatory
- Write sentences with correct capitalization and punctuation

ELA.5.22

Write a narrative to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.

- Orient the reader by establishing a situation and introducing a narrator and/or characters; organize an event sequence that unfolds naturally.
- Use narrative techniques, such as dialogue, description, and pacing, to develop experiences and events or show the responses of characters to situations.
- Use a variety of transition words, phrases, and clauses to manage the sequence of events.
- Use concrete words and phrases and sensory details to convey experiences and events precisely.
- Provide a conclusion that follows from the narrated experiences or events.

- Write a story with a clear beginning, middle, and end
- Write dialogue using quotation marks accurately
- Write a descriptive sentence about a real or imaginary experience or event
- Sequence events in the order in which they occurred
- Define narrative, closure, dialogue, temporal words, and descriptive details
- Write sentences with correct capitalization and punctuation

Cluster	Production and Distribution of Writing	Can this student?
ELA.5.23	Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in Text Types and Purposes.)	 Organize sentences into a paragraph to address a topic or tell a story using a variety of sentences Determine purpose and audience prior to writing (e.g., purpose: writer addresses topic in correct mode; audience: writer uses appropriate tone) Write a complete sentence using correct spelling, capitalization, and punctuation Define sentence, paragraph, topic, revise, and edit Write legibly in cursive or print
ELA.5.24	With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach. (Editing for conventions should demonstrate command of Language standards up to and including grade 5.)	 Focus on a topic, respond to questions and suggestions from peers, and add details to strengthen writing as needed Dictate details to strengthen a topic Organize sentences into a paragraph to address a topic or tell a story *Demonstrate command of language standards (36-41) up to grade 5
ELA.5.25	With some guidance and support from adults, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type accurately.	 Apply technology skills to create and share writing Use keyboarding and other types of technology to produce writing Engages with a variety of digital tools to produce and publish writing
Cluster	Research to Build and Present Knowledge	Can this student?
ELA.5.26	Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.	 Communicate information to an audience through verbal expression and written language Record found information Generate oral and written questions to gather information about topic Locate information about a topic using various resources (i.e., print, digital reference materials) Recall and share knowledge from own background

ELA.5.27	Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work and provide a list of sources.	Record and sort information Recall information to answer a question Discuss common experiences Respond to questions with a complete thought Recall knowledge from their own background
ELA.5.28	 Draw evidence from literary or informational texts to support analysis, reflection, and research. Apply grade 5 Reading standards to literature (e.g., "compare and contrast two or more characters, settings, or events in a story or a drama, drawing on specific details in the text [e.g., how characters interact]"). Apply grade 5 Reading standards to informational texts (e.g., "explain how an author uses reasons and evidence to support particular points in a text, identifying which reasons and evidence support which point[s]"). 	 Apply evidence, analysis, and reflection Develop an outline/graphic organizer of main points for given topic or question Identify supporting details for main idea Develop main idea for written response Classify facts from texts as important/ unimportant Identify the relevant information/facts requested in open-ended questions

Cluster	Range of Writing	Can this student?
ELA.5.29	Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of disciplinespecific tasks, purposes, and audiences.	 Write in journals following teacher guidelines (e.g., subject journals, story starters, open-ended questions) Participate in guided writing (e.g., anchor charts, teacher modeling) Participate in shared writing (e.g., language experience stories, chart stories)

Speaking & Listening

Cluster	Comprehension and Collaboration	Can this student?
ELA.5.30	 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing ideas clearly. Come to discussions prepared having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion. Follow agreed-upon rules for discussions and carry out assigned roles. Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others. Review the key ideas expressed and draw conclusions in light of information and knowledge gained from the discussions. 	 Use language to express ideas and understanding in complete sentences to contribute to conversations Continue a conversation through multiple exchanges Ask questions to check understanding of information received Nod or use facial expressions to indicate the answer to a question
ELA.5.31	Summarize a written text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.	 Determine the main ideas and supporting details of a text read aloud or information presented in diverse media and formats Recount or describe key ideas or details from a text read aloud or information presented orally or through other media Ask and answer questions about key details in a text read aloud or information presented orally or through other media Locate captions, illustrations, tables, and photographs to extend meaning of written text Identify key concepts from the texts

ELA.5.32	Summarize the points a speaker makes and explain how each claim is supported by reasons and evidence.	•	Use the speaker's main points to outline the information presented Identify a speaker's main points Use questions to gain a deeper understanding of information given Ask questions to gather unknown information
	reasons and evidence.		Use questions to gain a deeper understanding of information given
		•	

Cluster	Presentation of Knowledge and Ideas	Can this student?
ELA.5.33	Report on a topic or text or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.	 Communicate opinion in an organized manner through appropriate verbal communication Express ideas and feelings clearly using relevant information (i.e., people, places, things, events) Use descriptive words Identify details in informational or literary texts that support the main topic Communicate details about everyday experiences
ELA.5.34	Include multimedia components (e.g., graphics and/or sound) and visual displays in presentations when appropriate to enhance the development of main ideas or themes.	 Use audio recordings and visual displays to enhance writing and presentations Communicate details through visual displays
ELA.5.35	Adapt speech to a variety of contexts and tasks, using formal English when appropriate to task and situation. (See grade 5 Language standards for specific expectations.)	 Produce complete sentences when appropriate to task and situation Define discourse and formal/informal English Describe characteristics of formal language Describe characteristics of informal language Produce complete sentences when appropriate to task and situation to provide requested detail or clarification Ensure subject-verb and pronounantecedent agreement Produce simple, compound, and complex sentences

Language

Cluster	Conventions of Standard English	Can this student?
ELA.5.36	Demonstrate command of the conventions of Standard English grammar and usage when writing or speaking.	 Understand the difference between simple, compound, and complex sentences Understand coordinating and
	 Explain the function of conjunctions, prepositions, and interjections in general and their function in particular sentences. Form and use the perfect (e.g., I had walked; I have walked; I will have walked) verb tenses. Use verb tense to convey various times, sequences, states, and conditions. Recognize and correct inappropriate shifts in verb tense. Use correlative conjunctions (e.g., either/or and neither/nor). 	 subordinating conjunctions Understand comparative and superlative adjectives and adverbs Understand and apply subject-verb and pronoun-antecedent agreement Understand and apply possessive, personal, indefinite nouns, adjectives and adverbs Use frequently occurring adjectives, conjunctions, and prepositions Identify nouns, pronouns, verbs, adjectives, and adverbs in general and their functions in sentences Identify and use verb tenses
ELA.5.37	 Demonstrate command of the conventions of Standard English capitalization, punctuation and spelling when writing. Use punctuation to separate items in a series. Use a comma to separate an introductory element from the rest of the sentence. Use a comma to set off the words yes and no (e.g., Yes, thank you.), to set off a tag question from the rest of the sentence (e.g., It's true, isn't it?), and to indicate direct address (e.g., Is that you, Steve?). Use underlining, quotation marks, or italics to indicate titles of works. Spell grade-appropriate words correctly, consulting references as needed. 	 Write simple and compound sentences with correct punctuation, capitalization and spelling when writing with or without support Use apostrophes, commas, and punctuation in a sentence correctly Recognize proper nouns and capitalize them within a sentence Recognize when to use appropriate punctuation marks (i.e., period, question mark, exclamation mark) Accurately identify punctuation marks Identify the parts of a sentence (i.e., beginning of the sentence and end of the sentence) Fluently read sight words Generalize learned spelling patterns when writing words Use conventional spelling for words with common spelling patterns and for frequently occurring irregular words. Spell untaught words phonetically, drawing on phonemic awareness and spelling conventions

Cluster	Knowledge of Language	Can this student?
ELA.5.38	Use knowledge of language and its conventions when writing, speaking, reading, or listening. Expand, combine, and reduce sentences for meaning, reader/listener interest, and style. Compare and contrast the varieties of English (e.g., dialects and/or registers) used in stories, dramas, or poems.	 Understand and apply conventions of language Compare formal and informal uses of English Use appropriate grammar and vocabulary
Cluster	Vocabulary Acquisition and Use	Can this student?
ELA.5.39	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on <i>grade 5 reading and content</i> , choosing flexibly from a range of strategies. • Use context (e.g., cause/effect relationships and comparisons in text) as a clue to the meaning of a word or phrase.	 Understand multiple-meaning words, strategies, affixes, root, thesaurus, and glossary Use sentence-level context as a clue to the meaning of a word or phrase Determine the meaning of the new word formed when a known affix is added to a known word Use a known root word as a clue to the meaning of an unknown word with the

same root

phrase

literal language

to the senses

Use glossaries to determine or clarify

the precise meaning of key words and

Define and identify literal and non-

regular beats, alliteration, rhymes,

repeated lines) supply rhythm and

meaning in a story, poem, or song

Describe how words and phrases (e.g.,

Identify words and phrases in stories or

poems that suggest feelings or appeal

each of the words.

Use common, grade-appropriate

photograph and photosynthesis).

Consult reference materials (e.g., dictionaries, glossaries, and/or

Demonstrate understanding of figurative

language, word relationships, and nuances

Interpret figurative language, including

Recognize and explain the meaning of

common idioms, adages, and proverbs.

Use the relationship between particular

words (e.g., synonyms, antonyms, and homographs) to better understand

similes and metaphors, in context.

words and phrases.

in word meanings.

ELA.5.40

Greek and Latin affixes and roots as

clues to the meaning of a word (e.g.,

thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key

ELA.5.41

Acquire and accurately use gradeappropriate general academic and domainspecific words and phrases, including those that signal contrast, addition, and other logical relationships (e.g., however, although, nevertheless, similarly, moreover, and in addition).

- Engage in conversation accurately utilizing adjectives and adverbs to describe
- Use subject-related words and phrases acquired through conversations, reading and being read to, and responding to texts
- Use new and challenging vocabulary words correctly within the context of play or other classroom experiences
- Connect new vocabulary with prior life or educational experiences

Support for Mathematics Standards

Grade 3

All West Virginia teachers are responsible for classroom instruction that integrates content standards and mathematical habits of mind. Students in the third grade will focus on four critical areas: (1) developing understanding of multiplication and division and strategies for multiplication and division within 100; (2) developing understanding of fractions, especially unit fractions (fractions with numerator 1); (3) developing understanding of the structure of rectangular arrays and of area; and (4) describing and analyzing two-dimensional shapes. Mathematical habits of mind, which should be integrated in these content areas, include: making sense of problems and persevering in solving them, reasoning abstractly and quantitatively; constructing viable arguments and critiquing the reasoning of others; modeling with mathematics; using appropriate tools strategically; attending to precision, looking for and making use of structure; and looking for and expressing regularity in repeated reasoning. Continuing the skill progressions from second grade, the following chart represents the mathematical understandings that will be developed in third grade:

Operations and Algebraic Thinking

- Understand and know from memory how to multiply and divide numbers up to 10 x 10 fluently.
- Solve word problems using addition, subtraction, multiplication, and division.
- Begin to multiply numbers with more than one digit (e.g., multiplying 9 × 80).

Number and Operations in Base Ten

 Understand place value and properties of operations to perform multi-digit arithmetic, such as 10 x 2, 50 x 3, and 40 x 7.

Number and Operations- Fractions

• Understand fractions and relate them to the familiar system of whole numbers (e.g., recognizing that 3/1 and 3 are the same number).

Geometry

- Reason about shapes (e.g., all squares are rectangles but not all rectangles are squares).
- Find areas of shapes, and relate area to multiplication (e.g., why is the number of square feet for a 9-foot by 7-foot room given by the product 9 × 7?).
- Understand the connection between equal parts of a shape being a unit of the whole.

Measurement and Data

- Measure and estimate weights and liquid volumes, and solve word problems involving these quantities.
- Tell time and write time to the nearest minute.
- Recognize area as a quality of twodimensional regions.
- Understand that rectangular arrays can be broken into identical rows or into identical columns. By breaking rectangles into rectangular arrays of squares, students connect area to multiplication, and explain how multiplication is used to determine the area of a rectangle.

Numbering of Standards

The following Mathematics Standards will be numbered continuously. The following ranges relate to the clusters found within Mathematics:

Operations and Algebraic Thinking	
Represent and solve problems involving multiplication and division.	Standards 1-4
Understand properties of multiplication and the relationship between multiplication and division.	Standards 5-6
Multiply and divide within 100.	Standard 7
Solve problems involving the four operations, and identify and explain patterns in arithmetic.	Standards 8-9
Number and Operations in Base Ten	
Use place value and properties of operations to perform multi-digit arithmetic.	Standards 10-12
Number and Operations- Fractions	
Develop an understanding as fractions as numbers.	Standards 13-15
Measurement and Data	
Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.	Standards 16-17
Represent and interpret data.	Standards 18-19
Geometric measurement: understand concepts of area and relate area to multiplication and to addition.	Standards 20-22
Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.	Standard 23
Geometry	
Reason with shapes and their attributes.	Standards 24-25

Operations and Algebraic Thinking

Cluster	Represent and solve problems involving multiplication and division.	Can this student?
M.3.1	Interpret products of whole numbers, e.g., interpret 5 × 7 as the total number of objects in 5 groups of 7 objects each (e.g., describe context in which a total number of objects can be expressed as 5 × 7).	 Relate multiplication to repeated addition and skip counting Partition a rectangle into rows and columns
M.3.2	Interpret whole-number quotients of whole numbers, e.g., interpret 56 ÷ 8 as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each (e.g., describe a context in which a number of shares or a number of groups can be expressed as 56 ÷ 8).	 Display equal-size groups Recognize division as repeated subtraction, parts of a set, parts of a whole, or the inverse of multiplication
M.3.3	Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays and measurement quantities (e.g., by using drawings and equations with a symbol for the unknown number to represent the problem).	 Write a number sentence that represent a number or word problem Use a variety of models to represent multiplication and division
M.3.4	Determine the unknown whole number in a multiplication or division equation relating three whole numbers (e.g., determine the unknown number that makes the equation true in each of the equations 8 × ? = 48, 5 = ? ÷ 3, 6 × 6 =?).	 Model multiplication and division in a variety of ways Determine the unknown whole number in an addition or subtraction equation relating three whole numbers

Cluster	Understand properties of multiplication and the relationship between multiplication and division.	Can this student?
M.3.5	Apply properties of operations as strategies to multiply and divide (e.g., If $6 \times 4 = 24$ is known, then $4 \times 6 = 24$ is also known: Commutative Property of Multiplication. $3 \times 5 \times 2$ can be found by $3 \times 5 = 15$, then $15 \times 2 = 30$, or by $5 \times 2 = 10$, then $3 \times 10 = 30$: Associative Property of Multiplication. Knowing that $8 \times 5 = 40$ and $8 \times 2 = 16$, one can find 8×7 as $8 \times (5 + 2) = (8 \times 5) + (8 \times 2) = 40 + 16 = 56$: Distributive Property. Instructional Note: Students need not use formal terms for these properties.	 Apply properties of operations as strategies to add and subtract Compose/decompose numbers Recall basic addition and subtraction facts
M.3.6	Understand division as an unknown-factor problem (e.g., find 32 ÷ 8 by finding the number that makes 32 when multiplied by 8).	 Model division in a variety of ways Understand subtraction as an unknown-addend problem Find the unknown in an addition or subtraction number sentence
Cluster	Multiply and divide within 100.	Can this student?
M.3.7	Learn multiplication tables (facts) with speed and memory in order to fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 × 5 = 40, one knows that 40 ÷ 5 = 8)	 Model multiplication and division in a variety of ways Apply properties of operations as strategies to add and subtract Recall basic addition and subtraction facts

or properties of operations by the end of

Grade 3.

Cluster	Solve problems involving the four operations, and identify and explain patterns in arithmetic.	Can this student?
M.3.8	Solve two-step word problems using the four operations, represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding. Instructional Note: This standard is limited to problems posed with whole numbers and having whole number answers; students should know how to perform operations in the conventional order when there are no parentheses to specify a particular order (Order of Operations).	 Model estimation strategies Write addition and subtraction sentences that represent a two-step word problem; solve the addition and subtraction problem Recall basic multiplication and division facts Recall basic addition and subtraction facts
M.3.9	Identify arithmetic patterns (including patterns in the addition table or multiplication table) and explain those using properties of operations (e.g., observe that 4 times a number is always even and explain why 4 times a number can be decomposed into two equal addends).	 Recall addition and subtraction facts Recall properties of operations and the relationship between addition and subtraction Skip count Construct repeating and growing patterns with a variety of representations Extend the counting sequence

Number and Operations in Base Ten

Cluster	Use place value understanding and properties of operations to perform multidigit arithmetic.	Can this student?
M.3.10	Use place value understanding to round whole numbers to the nearest 10 or 100.	Understand ordering of numbersUnderstand place values with ones, tens, and hundreds
M.3.11	Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.	 Add and subtract within 100 using a variety of strategies Recall basic addition and subtraction facts Compose and decompose numbers
M.3.12	Multiply one-digit whole numbers by multiples of 10 in the range 10–90 (e.g., 9 × 80, 5 × 60) using strategies based on place value and properties of operations.	 Understand multiples of tens (e.g. 80=8x10) Recall multiplication facts

Number and Operations- Fractions

Cluster	Develop understanding of fractions as numbers.	Can this student?
M.3.13	Understand a fraction 1/b as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction a/b as the quantity formed by a parts of size 1/b. Instructional Note: Fractions in this standard are limited to denominators of 2, 3, 4, 6, and 8.	 Identify equal and unequal measures and regions Model the division of sets or the partition of figures
M.3.14	Understand a fraction as a number on the number line and represent fractions on a number line diagram. a. Represent a fraction 1/b on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into b equal parts. Recognize that each part has size 1/b and that the endpoint of the part based at 0 locates the number 1/b on the number line. (e.g., Given that b parts is 4 parts, then 1/b represents 1/4. Students partition the number line into fourths and locate 1/4 on the number line.) b. Represent a fraction a/b on a number line diagram by marking off a lengths 1/b from 0. Recognize that the resulting interval has size a/b and that its endpoint locates the number a/b on the number line. (e.g., Given that a/b represents 3/4 or 6/4, students partition the number line into fourths and represent these fractions accurately on the same number line; students extend the number line to include the number of wholes required for the given fractions.) Instructional Note: Fractions in this	 a—b. Create a number line and locate whole numbers on it Compare and order whole numbers Model the division of sets or the partition of figures Identify equal and unequal measures and regions
	Instructional Note: Fractions in this standard are limited to denominators of 2, 3, 4, 6, and 8.	

M.3.15 Explain equivalence of fractions in special cases and compare fractions by reasoning about their size.

- a. Understand two fractions as equivalent (equal) if they are the same size or the same point on a number line.
- b. Recognize and generate simple equivalent fractions (e.g., 1/2 = 2/4, 4/6 = 2/3). Explain why the fractions are equivalent (e.g., by using a visual fraction model).
- c. Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. (e.g., Express 3 in the form 3 = 3/1; recognize that 6/1 = 6; locate 4/4 and 1 at the same point of a number line diagram.)
- d. Compare two fractions with the same numerator or the same denominator by reasoning about their size.

 Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols >, = or < and justify the conclusions (e.g., by using a visual fraction model).

Instructional Note: Fractions in this standard are limited to denominators of 2, 3, 4, 6, and 8.

a—d.

- Represent fractions concretely and symbolically, including representing whole numbers as fractions
- Identify equal and unequal measures and regions
- Model the division of sets or the partition of figures

d.

- Compare whole numbers
- Identify comparison symbols

Measurement and Data

Cluster	Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.	Can this student?
M.3.16	Tell and write time to the nearest minute, measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes (e.g., by representing the problem on a number line diagram).	 Tell and write time at the five-minute intervals Use addition and subtraction within 100 to solve one- and two-step word problems Model addition and subtraction on a number line
M.3.17	Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg) and liters (l). Add, subtract, multiply or divide to solve onestep word problems involving masses or volumes that are given in the same units (e.g., by using drawings, such as a beaker with a measurement scale) to represent the problem. Instructional Note: Exclude compound units such as cm³ and finding the geometric volume of a container.	 Recall addition, subtraction, multiplication, and division facts Use addition and subtraction to solve word problems Measure length of an object using standard and nonstandard units
Cluster	Represent and interpret data.	Can this student?
M.3.18	Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs (e.g., draw a bar graph in which each square in the bar graph might represent 5 pets).	 Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories Add and subtract within 100 Solve simple problems using information presented in a picture graph or bar graph
M.3.19	Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units—whole numbers, halves or quarters.	 Generate measurement data by measuring lengths of several objects to the nearest whole unit Show the measurements by making a line plot using whole number units

Cluster	Geometric measurement: understand concepts of area and relate area to multiplication and to addition.	Can this student?
M.3.20	Recognize area as an attribute of plane figures and understand concepts of area measurement. a. A square with side length 1 unit, called "a unit square," is said to have "one square unit" of area and can be used to measure area. b. A plane figure which can be covered without gaps or overlaps by b unit squares is said to have an area of b square units.	 a-b. Model multiplication in a variety of ways Determine perimeter using concrete models, nonstandard units, and standard units
M.3.21	Measure areas by counting unit squares (square cm, square m, square in, square ft. and improvised units).	 Model multiplication in a variety of ways Determine perimeter using concrete models, nonstandard units, and standard units Identify units of measure

M.3.22	Relate area to the operations of multiplication and addition.		a—d. • Recall basic multiplication facts	
	a.	Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths.		Model multiplication in a variety of ways Partition a rectangle into rows and columns of same-size squares and count to find the total number of them
	b.	Multiply side lengths to find areas of rectangles with whole number side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.	c d	Use the distributive property
	C.	Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths a and b + c is the sum of a × b and a × c. Use area models to represent the distributive property in mathematical reasoning.		Decompose numbers
	d.	Recognize area as additive and find areas of rectilinear figures		

Cluster	Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.	Can this student?
M.3.23	Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.	 Solve word problems Use addition, subtraction, multiplication, and division to solve word problems with unknowns in all positions Recognize and draw shapes having specified attributes

by decomposing them into non-

parts, applying this technique to

solve real world problems.

overlapping rectangles and adding the areas of the non-overlapping

Geometry

Cluster	Reason with shapes and their attributes.	Can this student?
M.3.24	Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), that the shared attributes can define a larger category (e.g. quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.	 Identify, draw, and name basic shapes Recognize that shapes have specified attributes
M.3.25	Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. For example, partition a shape into 4 parts with equal area, and describe the area of each part as ¼ or the area of the shape.	 Partition circles and rectangles into two, three, or four equal shares Describe the shares using the words halves, thirds, half of, a third of, etc., describe the whole as two halves, three thirds, four fourths Partition a rectangle into rows and columns of same-size squares

Support for Mathematics Standards

Grade 4

All West Virginia teachers are responsible for classroom instruction that integrates content standards and mathematical habits of mind. Students in the fourth grade will focus on three critical areas: (1) developing understanding and fluency with multi-digit multiplication, and developing understanding of dividing to find quotients involving multi-digit dividends; (2) developing an understanding of fraction equivalence, addition and subtraction of fractions with like denominators, and multiplication of fractions by whole numbers; (3) understanding that geometric figures can be analyzed and classified based on their properties, such as having parallel sides, perpendicular sides, particular angle measures, and symmetry. Mathematical habits of mind, which should be integrated in these content areas, include: making sense of problems and persevering in solving them, reasoning abstractly and quantitatively; constructing viable arguments and critiquing the reasoning of others; modeling with mathematics; using appropriate tools strategically; attending to precision, looking for and making use of structure; and looking for and expressing regularity in repeated reasoning. Continuing the skill progressions from third grade, the following chart represents the mathematical understandings that will be developed in fourth grade:

Operations and Algebraic Thinking

- Use whole-number arithmetic to solve word problems, including problems with remainders and problems with measurements.
- Add and subtract whole numbers quickly and accurately (numbers up to 1 million).
- Multiply and divide multi-digit numbers in simple cases (e.g., multiplying 1,638 × 7 or 24 × 17, and dividing 6,966 by 6).
- Gain familiarity with factors and multiples.
- · Generate and analyze patterns.

Number and Operations in Base Ten

- Generalize place value understanding for multi-digit whole numbers
- Use place value understanding and properties of operations to perform multidigit arithmetic.

Number and Operations- Fractions

- Use equivalent fractions to understand and order fractions (e.g., recognize that 1/4 is less than 3/8 because 2/8 is less than 3/8).
- Add, subtract, and multiply fractions in simple cases (such as 2 3/4 1 1/4 or 3 × 5/8), and solve related word problems.
- Understand and compare simple decimals in terms of fractions (e.g., rewriting 0.62 as 62/100).

Measurement and Data

- Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit
- · Represent and interpret data
- Geometric measurement: understand concepts of angle and measure angles

Geometry

- Draw and identify lines and angles, and classify shapes by properties of their lines and angles.
- Measure angles and find unknown angles in a diagram.

Numbering of Standards

The following Mathematics Standards will be numbered continuously. The following ranges relate to the clusters found within Mathematics:

Operations and Algebraic Thinking				
Use the four operations with whole numbers to solve problems.	Standards 1-3			
Gain familiarity with factors and multiples.	Standard 4			
Generate and analyze patterns.	Standard 5			
Number and Operations in Base Ten				
Generalize place value understanding for multidigit whole numbers.	Standards 6-8			
Use place value understanding and properties of operations to perform multi-digit arithmetic.	Standards 9-11			
Number and Operations- Fractions				
Extend understanding of fraction equivalence and ordering.	Standards 12-13			
Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.	Standards 14-15			
Understand decimal notation for fractions, and compare decimal fractions.	Standards 16-18			
Measurement and Data				
Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.	Standards 19-21			
Represent and interpret data.	Standards 22			
Geometric measurement: understand concepts of angle and measure angles.	Standards 23-25			
Geometry				
Draw and identify lines angles and classify shapes by properties of their lines and angles.	Standards 26-28			

Operations and Algebraic Thinking

Cluster	Use the four operations with whole numbers to solve problems.	Can this student?
M.4.1	Interpret a multiplication equation as a comparison (e.g., interpret 35 = 5 × 7 as a statement that 35 is 5 times as many as 7 and 7 times as many as 5). Represent verbal statements of multiplicative comparisons as multiplication equations.	 Model multiplication and division in a variety of ways Write an addition or a subtraction sentence that represents a number or word problem Recall basic multiplication facts
M.4.2	Multiply or divide to solve word problems involving multiplicative comparison (e.g., by using drawings and equations with a symbol for the unknown number to represent the problem) and distinguish multiplicative comparison from additive comparison.	 Model multiplication and division in a variety of ways Write an addition or a subtraction sentence that represents a number or word problem Identify unknown in an addition and subtraction sentence Recall basic multiplication or division facts
M.4.3	Solve multi-step word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.	 Write a number sentence that represents a number or word problem Use estimation strategies Identify unknown in a number sentence Solve single-step word problems
Cluster	Gain familiarity with factors and multiples.	Can this student?
M.4.4	Find all factor pairs for a whole number in the range 1–100, recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1–100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1–100 is prime or composite.	 Apply properties of operations as strategies to multiply and divide Describe and demonstrate patterns in skip counting and multiplication; continue sequences beyond memorized or modeled numbers Know basic multiplication and division facts

Cluster	Generate and analyze patterns.	Can this student?
M.4.5	Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. (e.g., Given the rule "Add 3" and the starting number 1, generate terms in the resulting sequence and observe that the terms appear to alternate between odd and even numbers. Explain informally why the numbers will continue to alternate in this way.)	 Identify and continue patterns Identify arithmetic patterns and explain those using properties of operations Recognize the relationship between corresponding terms of the pattern

Number and Operations in Base Ten

Cluster	Generalize place value understanding for multi-digit whole numbers.	Can this student?
M.4.6	Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right (e.g., recognize that 700 ÷ 70 = 10 by applying concepts of place value and division).	 Read, write, and compare whole numbers from 10,000 to less than one million using standard and expanded notation Identify the value of each digit's place value
M.4.7	Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using >, = and < symbols to record the results of comparisons.	 Read and write word names and compare within 1,000 Identify the value of each digit's place value Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using symbols to record the comparison results
M.4.8	Use place value understanding to round multi-digit whole numbers to any place.	 Round to the nearest 10 or 100 Identify the place value of each digit in a multi-digit number Demonstrate rounding within 1000

Cluster	Use place value understanding and properties of operations to perform multidigit arithmetic.	Can this student?
M.4.9	Fluently add and subtract multi-digit whole numbers using the standard algorithm.	 Connect previous strategies for adding and subtracting whole numbers to the standard algorithm Recall basic addition and subtraction facts

M.4.10	Multiply a whole number of up to four digits by a one-digit whole number, multiply two two-digit numbers, using strategies based on place value and the properties of operations and illustrate and explain the calculation by using equations, rectangular arrays and/or area models.		Demonstrate multiplication of one-digit numbers by multiples of ten Apply properties of operations Understand place value Recall basic multiplication facts
M.4.11	Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays and/or area models.	•	Demonstrate division of a whole number by a single digit divisor Divide using a single digit divisor that produces a quotient with or without a remainder Recall basic division facts

Number and Operations- Fractions

Cluster	Extend understanding of fraction equivalence and ordering.	Can this student?
M.4.12	Explain why a fraction a/b is equivalent to a fraction $(n \times a)/(n \times b)$ by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions.	Represent fractions concretely and symbolically, including representing whole numbers as fractions
M.4.13	Compare two fractions with different numerators and different denominators (e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as ½). Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols >, = or <, and justify the conclusions by using a visual fraction model.	 Compare fractions with the same numerator or denominator concretely and symbolically Use benchmark numbers (zero, onehalf, one) and models to compare and order fractions Identify comparison symbols

Cluster	Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.	Can this student?
M.4.14	 numbers. Understand the fraction a/b, with a > 1, as the sum of a of the fractions 1/b. a. Understand addition and subtraction of fractions as joining and separating parts referring to the same whole. b. Decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation and justify decompositions by using a visual fraction model (e.g., 3/8 = 1/8 + 1/8 + 1/8; 3/8 = 1/8 + 2/8; 2 1/8 = 1 + 1 + 1/8 = 8/8 + 8/8 + 1/8). c. Add and subtract mixed numbers with like denominators by replacing each mixed number with an equivalent fraction and/or by using properties of operations and the relationship between addition and subtraction. d. Solve word problems involving addition and subtraction of fractions 	 a. Understand addition and subtraction of whole numbers Understand the size of the whole b. Decompose a whole number Model and identify fractions, including mixed numbers c. Understand that the fractional relationships that occur between zero and one also occur between every two consecutive numbers Use addition and subtraction facts Express whole numbers as fractions Use models to compose and decompose fractions, including mixed numbers
	referring to the same whole and having like denominators by using visual fraction models and equations to represent the problem.	 d. Solve word problems with whole numbers Represent fractions concretely and symbolically, including representing whole numbers as fractions

M.4.15	Apply and extend previous understandings of multiplication to multiply a fraction by a whole number.
	a. Understand a fraction a/b as a

a. Understand a fraction a/b as a multiple of 1/b, (e.g., use a visual fraction model to represent 5/4 as the product $5 \times (1/4)$, recording the conclusion by the equation $5/4 = 5 \times (1/4)$).

- b. Understand a multiple of a/b as a multiple of 1/b, and use this understanding to multiply a fraction by a whole number (e.g., use a visual fraction model to express 3 × (2/5) as 6 × (1/5), recognizing this product as 6/5. In general, n × (a/b) = (n × a)/b).
- c. Solve word problems involving multiplication of a fraction by a whole number by using visual fraction models and equations to represent the problem (e.g., If each person at a party will eat 3/8 of a pound of roast beef, and there will be 5 people at the party, how many pounds of roast beef will be needed? Between what two whole numbers does your answer lie?).

a-c.

- Represent fractions concretely and symbolically
- Model multiplication in a variety of ways
- · Identify unit fractions
- Recall multiplication facts

C.

 Solve word problems using whole numbers

Cluster	Understand decimal notation for fractions, and compare decimal fractions.	Can this student?
M.4.16	Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100 (e.g., express 3/10 as 30/100, and add 3/10 + 4/100 = 34/100). Instructional Note: Students who can generate equivalent fractions can develop strategies for adding fractions with unlike denominators in general. But addition and subtraction with unlike denominators in general is not a requirement at this grade.	 Know and use multiplication and division facts Use models to write equivalent fractions

M.4.17	Use decimal notation for fractions with denominators 10 or 100 (e.g., rewrite 0.62 as 62/100; describe a length as 0.62 meters; locate 0.62 on a number line diagram).	•	Write money amounts using a dollar sign Model equivalent fractions Create a number line and locate whole numbers and fractions on it
M.4.18	Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols >, = or <, and justify the conclusions by using a visual model.	•	Compare whole numbers and fractions Identify comparison symbols Represent decimals concretely and symbolically

Measurement and Data

Cluster	Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.	Can this student?
M.4.19	Know relative sizes of measurement units within a system of units, including the metric system (km, m, cm; kg, g; l, ml), the standard system (lb, oz), and time (hr, min, sec.). Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table. (e.g., Know that 1 ft is 12 times as long as 1 in. Express the length of a 4 ft snake as 48 in. Generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), (3, 36),)	 Identify customary and metric units and units of time Organize, represent, interpret data with up to three categories
M.4.20	Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.	 Recall addition, subtraction, multiplication, and division facts Identify customary and metric units and units of time Create a number line Use measurement tools

M.4.21	Apply the area and perimeter formulas for rectangles in real world and mathematical problems by viewing the area formula as a multiplication equation with an unknown factor. (e.g., find the width of a rectangular room given the area of the flooring and the length.)	 Recall addition and multiplication facts Determine the unknown in an equation Use the commutative, associative, and distributive properties to add or multiply numerical expressions Use models to determine perimeter and area Demonstrate multiplication of a variety of ways
Cluster	Represent and interpret data.	Can this student?
M.4.22	Make a line plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 1/8). Solve problems involving addition and subtraction of fractions by using information presented in line plots (e.g., from a line plot find and interpret the difference in length between the longest and shortest specimens in an insect collection).	 Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories Create a line plot using whole numbers halves, and quarters Create a scaled picture graph and a scaled bar graph Solve one- and two-step problems using information presented in line plots, scaled picture, or bar graphs Add and subtract mixed numbers and fractions
Cluster	Geometric measurement: understand concepts of angle and measure angles.	Can this student?
M.4.23	Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement: a. An angle is measured with reference to a circle with its center at the common endpoint of the rays, by	a—b. • Identify units of measure

English Language Arts and Mathematics | Grades 3-5

measure angles.

considering the fraction of the circular arc between the points where the two rays intersect the circle. An angle that turns through 1/360 of a circle is called a "one-degree angle," and can be used to

b. An angle that turns through b onedegree angles is said to have an angle measure of b degrees.

M.4.24	Measure angles in whole-number degrees using a protractor and sketch angles of specified measure.	•	Use measurement tools
M.4.25	Recognize angle measure as additive. When an angle is decomposed into non- overlapping parts, the angle measure of the whole is the sum of the angle measures of the parts. Solve addition and subtraction problems to find unknown angles on a diagram in real world and mathematical problems (e.g., by using an equation with a symbol for the unknown angle measure).		Add and subtract numbers up to 3-digits Find the value of an unknown in a number sentence Compose and decompose numbers

Geometry

Cluster	Draw and identify lines and angles and classify shapes by properties of their lines and angles.	Can this student?
M.4.26	Draw points, lines, line segments, rays, angles (right, acute, obtuse) and perpendicular and parallel lines. Identify these in two-dimensional figures.	 Recognize and draw shapes having specified attributes Identify equal and unequal measures and regions Identify two-dimensional figures
M.4.27	Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles.	 Identify two-dimensional figures Recognize that shapes in different categories may share attributes
M.4.28	Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry.	 Identify equal and unequal measures and regions Identify two-dimensional figures

Support for Mathematics Standards

Grade 5

All West Virginia teachers are responsible for classroom instruction that integrates content standards and mathematical habits of mind. Students in the fifth grade will focus on three critical areas: (1) developing fluency with addition and subtraction of fractions, and developing understanding of the multiplication of fractions and of division of fractions in limited cases (unit fractions divided by whole numbers and whole numbers divided by unit fractions); (2) extending division to 2-digit divisors, integrating decimal fractions into the place value system and developing understanding of operations with decimals to hundredths, and developing fluency with whole number and decimal operations; (3) developing an understanding of volume. Mathematical habits of mind, which should be integrated in these content areas, include: making sense of problems and persevering in solving them, reasoning abstractly and quantitatively; constructing viable arguments and critiquing the reasoning of others; modeling with mathematics; using appropriate tools strategically; attending to precision, looking for and making use of structure; and looking for and expressing regularity in repeated reasoning. Students in fifth grade will continue developing mathematical proficiency in a developmentally-appropriate progressions of standards. Continuing the skill progressions from fourth grade, the following chart represents the mathematical understandings that will be developed in fifth grade:

Operations and Algebraic Thinking

- · Write and interpret numerical expressions.
- Analyze mathematical patterns and relationships.

Number and Operations in Base Ten

- · Understand the place value system.
- Generalize the place-value system to include decimals, and calculate with decimals to the hundredths place (two places after the decimal).
- Multiply whole numbers quickly and accurately, for example 1,638 × 753, and divide whole numbers in simple cases, such as dividing 6,971 by 63.

Number and Operations- Fractions

- Add and subtract fractions with like and unlike denominators (e.g., 21/4 11/3), and solve word problems of this kind.
- Multiply fractions; divide fractions in simple cases; and solve related word problems (e.g., find the area of a rectangle with fractional side lengths; determine how many 1/3-cup servings are in 2 cups of raisins; determine the size of a share if 9 people share a 50-pound sack of rice equally or if 3 people share 1/2 pound of chocolate equally).

Measurement and Data

- Convert like measurement units within a given measurement system.
- Make a line plot to display a data set with fractional units of measure and interpret the data to solve problems.
- Geometric measurement: Understand the concept of volume, and solve word problems that involve volume.

Geometry

- Graph points on the coordinate plane to solve real-world and mathematical problems.
- Classify two-dimensional figures into categories based on their properties.

Numbering of Standards

The following Mathematics Standards will be numbered continuously. The following ranges relate to the clusters found within Mathematics:

Operations and Algebraic Thinking	
Write and interpret numerical expressions.	Standards 1-2
Analyze patterns and relationships.	Standard 3
Number and Operations in Base Ten	
Understand the place value system.	Standard 4-7
Perform operations with multi-digit whole numbers and with decimals to hundredths.	Standards 8-10
Number and Operations- Fractions	
Use equivalent fractions as a strategy to add and subtract fractions.	Standards 11-12
Apply and extend previous understandings of multiplication and division to multiply and divide fractions.	Standards 13-17
Measurement and Data	
Convert like measurement units within a given measurement system.	Standard 18
Represent and interpret data.	Standard 19
Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.	Standards 20-22
Geometry	
Graph points on the coordinate plane to solve real-world and mathematical problems.	Standards 23-24
Classify two-dimensional figures into categories based on their properties.	Standards 25-26

Operations and Algebraic Thinking

Cluster	Write and Interpret numerical expressions.	Can this student?
M.5.1	Use parentheses, brackets or braces in numerical expressions and evaluate expressions with these symbols.	Use the four operations fluentlySolve multi-step problems
M.5.2	Write simple expressions that record calculations with numbers and interpret numerical expressions without evaluating them. (e.g., Express the calculation "add 8 and 7, then multiply by 2" as 2 × (8 + 7). Recognize that 3 × (18932 + 921) is three times as large as 18932 + 921, without having to calculate the indicated sum or product.)	 Write number sentences using any combination of the four operations Recognize the order of operations including grouping symbols Apply properties of operations
Cluster	Analyze patterns and relationships	Can this student?

Cluster	Analyze patterns and relationships	Can this student?
M.5.3	Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane. (e.g., Given the rule "Add 3" and the starting number 0 and given the rule "Add 6" and the starting number 0, generate terms in the resulting sequences and observe that the terms in one sequence are twice the corresponding terms in the other sequence. Explain informally why this is so.)	 Continue an existing pattern Recognize the relationship between corresponding terms of the pattern Construct a table of values given a certain rule Locate points on a number line

Number and Operations in Base Ten

Cluster	Understand the place value system	Can this student?
M.5.4	Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left.	 Compare and contrast the place value of whole numbers and decimals (e.g. 300, 30, 3, 0.3, 0.03) Identify the value of each digit's place value

M.5.5	Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10.	 Recognize that powers of ten can be written as factors of ten (e.g. 1000 = 10 x 10 x 10) Identify the value of each digit's place value to the hundredths Recall multiplication and division facts of ten Skip count forward and backward by ten
M.5.6	Read, write, and compare decimals to thousandths. a. Read and write decimals to thousandths using base-ten numerals, number names and expanded form (e.g., 347.392 = 3 × 100 + 4 × 10 + 7 × 1 + 3 × (1/10) + 9 × (1/100) + 2 × (1/1000)). b. Compare two decimals to thousandths based on meanings of the digits in each place, using >, = and < symbols to record the results of comparisons.	 a-b. Relate standard notation and expanded notation of whole numbers Read, write, compare numbers to the hundredths place Identify the value of each digit of a whole number and a decimal
M.5.7	Use place value understanding to round decimals to any place.	 Round whole numbers to a given place value Identify the place value of each digit in a multi-digit number Use benchmark fractions to compare and order decimals and fractions
Cluster	Perform operations with multi-digit whole numbers and with decimals to hundredths.	Can this student?
M.5.8	Fluently multiply multi-digit whole numbers using the standard algorithm.	 Connect previous strategies for multiplying multi-digit whole numbers to the standard algorithm Recall basic multiplication facts
M.5.9	Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations,	 Demonstrate division of a whole number by a single digit divisor Divide using a single digit divisor that produces a quotient with or without a remainder Recall basic division facts

M.5.10	Add, subtract, multiply and divide decimals to hundredths, using concrete models or	•	Add, subtract, multiply, and divide whole numbers
	drawings and strategies based on place	•	Demonstrate operations with whole
	value, properties of operations, and/or the		numbers
	relationship between related operations,		Use the properties of operations
	relate the strategy to a written method and		Identify place value
	explain the reasoning used.		

Number and Operations - Fractions

Cluster	Use equivalent fractions as a strategy to add and subtract fractions.	Can this student?
M.5.11	Add and subtract fractions with unlike denominators, including mixed numbers, by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators (e.g., 2/3 + 5/4 = 8/12 + 15/12 = 23/12). Instructional Note: In general, a/b + c/d = (ad + bc)/bd.	 Add and subtract fractions with like denominators Make equivalent fractions Write a mixed number as a fraction
M.5.12	Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators by using visual fraction models or equations to represent the problem. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers (e.g., recognize an incorrect result 2/5 + 1/2 = 3/7, by observing that 3/7 < 1/2).	 Write an addition and subtraction sentence that represents a number or word problem Estimate sums and differences Represent fractions, including whole numbers as fractions, concretely Use benchmark fractions to compare and order decimals and fractions

Cluster	Apply and extend previous understandings of multiplication and division to multiply and divide fractions.	Can this student?
M.5.13	Interpret a fraction as division of the numerator by the denominator (a/b = a ÷ b). Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers by using visual fraction models or equations to represent the problem. (e.g., Interpret 3/4 as the result of dividing 3 by 4, noting that 3/4 multiplied by 4 equals 3 and that when 3 wholes are shared equally among 4 people each person has a share of size 3/4. If 9 people want to share a 50-pound sack of rice equally by weight, how many pounds of rice should each person get? Between what two whole numbers does your answer lie?)	 Write a division sentence that represents a number or word problem Use models to represent equal parts Divide using single-digit divisors
M.5.14	Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction. a. Interpret the product (a/b) × q as a parts of a partition of q into b equal parts; equivalently, as the result of a sequence of operations a × q ÷ b. (e.g., Use a visual fraction model to show (2/3) × 4 = 8/3 and create a story context for this equation. Do the same with (2/3) × (4/5) = 8/15.) Instructional Note: In general, (a/b) × (c/d) = ac/bd. b. Find the area of a rectangle with fractional side lengths by tiling it with unit squares of the appropriate unit fraction side lengths and show that the area is the same as would be found by multiplying the side lengths. Multiply fractional side lengths to find areas of rectangles and represent fraction products as rectangular areas.	 a. Recognize that the denominator represents the number of equal parts of a whole Recall basic multiplication b. Show multiplication using an area model

M 545	Later and the High Continuous and Continuous A	- 1
M.5.15	Interpret multiplication as scaling (resizing), by: a. Comparing the size of a product to the size of one factor on the basis of the size of the other factor, without performing the indicated multiplication. b. Explaining why multiplying a given number by a fraction greater than 1 results in a product greater than the given number (recognizing multiplication by whole numbers greater than 1 as a familiar case); explaining why multiplying a given number by a fraction less than 1 results in a product smaller than the given number; and relating the principle of fraction equivalence a/b = (n×a)/(n×b) to the effect of	 a—b. Find the fractional part of a whole number or fraction with and without models and pictures Recall equivalent fractions b. Recall basic multiplication and division facts
M.5.16	multiplying a/b by 1. Solve real-world problems involving	Write a mixed number as a fraction
	multiplication of fractions and mixed numbers by using visual fraction models or equations to represent the problem.	 Solve real-world problems involving whole numbers Represent multiplication with an area model

M.5.17

Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions. Instructional Note: Students able to multiply fractions in general can develop strategies to divide fractions in general, by reasoning about the relationship between multiplication and division, but division of a fraction by a fraction is not a requirement at this grade.

- a. Interpret division of a unit fraction by a non-zero whole number and compute such quotients. (e.g., Create a story context for (1/3) ÷ 4 and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that (1/3) ÷ 4 = 1/12 because (1/12) × 4 = 1/3.)
- b. Interpret division of a whole number by a unit fraction and compute such quotients. (e.g., Create a story context for 4 ÷ (1/5) and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that 4 ÷ (1/5) = 20 because 20 × (1/5) = 4.)
- c. Solve real-world problems involving division of unit fractions by nonzero whole numbers and division of whole numbers by unit fractions by using visual fraction models and equations to represent the problem. (e.g., How much chocolate will each person get if 3 people share 1/2 lb. of chocolate equally? How many1/3-cup servings are in 2 cups of raisins?)

a-c.

- Find the unit fraction
- Demonstrate division in a variety of wavs

Measurement and Data

Cluster	Convert like measurement units within a given measurement system.	Can this student?
M.5.18	Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m) and use these conversions in solving multi-step, real-world problems.	 Identify relative sizes of measurement units within a system of units Identify units in customary and metric systems Solve real-world problems Recall multiplication and division facts
Cluster	Represent and interpret data.	Can this student?
M.5.19	Make a line plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 1/8). Use operations on fractions for this grade to solve problems involving information presented in line plots. (e.g., Given different measurements of liquid in identical beakers, find the amount of liquid each beaker would contain if the total amount in all the beakers were redistributed equally).	 Make a line plot with whole numbers and data set Use operations of fractions Use a graph or pictograph Create a number line
Cluster	Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.	Can this student?
M.5.20	Recognize volume as an attribute of solid figures and understand concepts of volume measurement. a. A cube with side length 1 unit, called a "unit cube," is said to have "one cubic unit" of volume and can be used to measure volume. b. A solid figure which can be packed without gaps or overlaps using b	 a—b. Calculate area of rectangles and squares Measure capacity using standard and nonstandard units Recognize attributes of threedimensional figures
	unit cubes is said to have a volume of b cubic units.	
M.5.21	Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and improvised units.	Recall area of rectangles and squaresMeasure capacity using standard and nonstandard units

M.5.22 Relate volume to the operations of multiplication and addition and solve realworld and mathematical problems involving volume.

- a. Find the volume of a right rectangular prism with whole-number side lengths by packing it with unit cubes and show that the volume is the same as would be found by multiplying the edge lengths, equivalently by multiplying the height by the area of the base. Represent threefold whole-number products as volumes (e.g., to represent the associative property of multiplication).
- b. Apply the formulas V = l × w × h and V = b × h for rectangular prisms to find volumes of right rectangular prisms with whole number edge lengths in the context of solving real-world and mathematical problems.
- c. Recognize volume as additive and find volumes of solid figures composed of two non-overlapping right rectangular prisms by adding the volumes of the non-overlapping parts, applying this technique to solve real-world problems.

a-b.

• Find the area of a rectangle and square

a-c.

- Recall the associative property of multiplication
- Use basic multiplication and division facts to 144

b.

 Recall the formula to find the area of a rectangle or square

C

· Find the area of a composite figure

Geometry

Cluster	Graph points on the coordinate plane to solve real-world and mathematical problems.	Can this student?
M.5.23	Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines, the origin, arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond (e.g., x-axis and x-coordinate, y-axis and y-coordinate).	 Identify lines including perpendicular lines Create a number line
M.5.24	Represent real-world mathematical problems by graphing points in the first quadrant of the coordinate plane and interpret coordinate values of points in the context of the situation.	 Locate points on a number line Use directional and positional words
Cluster	Classify two-dimensional figures into categories based on their properties.	Can this student?
M.5.25	Understand that attributes belonging to a category of two dimensional figures also belong to all subcategories of that category (e.g., all rectangles have four right angles and squares are rectangles, so all squares have four right angles).	 Recognize specified attributes of shapes Classify lines and angles
M.5.26	Classify two-dimensional figures in a hierarchy based on properties.	 Classify lines and angles Recall attributes of two-dimensional figures Measure lengths of sides



Steven L. Paine, Ed.D. West Virginia Superintendent of Schools