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# Content and Timeline for Mathematics

***Grade 1***



West Virginia DEPARTMENT OF  
**EDUCATION**



**West Virginia Board of Education  
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## Grade 1

The West Virginia College- and Career-Readiness Standards for mathematics emphasize key content, skills, and Mathematical Habits of Mind at each grade level. The focus of instruction is placed on grade-level standards. Instruction should be attentive to learning across all early and elementary learning grades and link major topics within grades. Instruction should develop conceptual understanding, procedural skill and fluency, and application.

Students in the first grade will focus on four critical areas: (1) developing understanding of addition, subtraction, and strategies for addition and subtraction within 10; (1) developing understanding of whole number relationships and place value, including grouping in tens and ones; (3) developing understanding of linear measurement and measuring lengths as repeating length units; and (4) reasoning about attributes of, and composing and decomposing geometric shapes.

The following table highlights the content at the cluster level for second grade standards. The bulk of instructional time should be given to the clusters and the standards within them. Standards should not be neglected; to do so would result in gaps in students' learning, including skills and understandings they may need in later grades. Instruction should reinforce standards within the clusters by including problems and activities that support natural connections between clusters. **Teachers and administrators alike should note that the standards are not topics to be checked off after being covered in isolated units of instruction;** rather, they provide content to be developed throughout the school year through rich instructional experiences presented in a coherent manner.

### Explanations

**Domains** are broad components that make up a content area. Domains in mathematics vary by grade-level and by course. For example, the four domains for mathematics in Grade 1 are Operations and Algebraic Thinking, Number and Operations in Base Ten, Measurement and Data, and Geometry.

**Clusters** are groups of standards that define the expectations students must demonstrate to be college- and career-ready.

**Standards** are expectations for what students should know, understand and be able to do; standards represent educational goals.



Grade 1 Cluster-Level Emphasis	West Virginia College- and Career- Readiness Standards
<b>Operations and Algebraic Thinking</b>	
<ul style="list-style-type: none"> <li>Represent and solve problems involving addition and subtraction.</li> <li>Understand and apply properties of operations and the relationship between addition and subtraction.</li> <li>Add and subtract within 20.</li> <li>Work with addition and subtraction equations.</li> </ul>	M.1.1- M.1.2 M.1.3- M.1.4 M.1.5- M.1.6 M.1.7- M.1.8
<b>Number and Operations in Base Ten</b>	
<ul style="list-style-type: none"> <li>Extend the counting sequence</li> <li>Understand place value.</li> <li>Use place value understanding and properties of operations to add and subtract.</li> </ul>	M.1.9 M.1.10 – M.1.11 M.1.12- M.1.14
<b>Measurement and Data</b>	
<ul style="list-style-type: none"> <li>Measure lengths indirectly and by iterating length units.</li> <li>Tell and write time.</li> <li>Represent and interpret data.</li> </ul>	M.1.15 – M.1.16 M.1.17 M.1.18
<b>Geometry</b>	
<ul style="list-style-type: none"> <li>Reason with shapes and their attributes.</li> </ul>	M.1.19 – M.1.21

*Adapted from California Mathematics Framework*



## Grade 1 Sample Content Plan

Curricula and how and when to teach certain topics are the responsibility of the classroom teacher. The following chart is an example of how a teacher might structure the school year to ensure all grade-level standards are taught. Teachers must provide students the opportunity to master each of the grade-level content standards. **It is important to understand that neglecting grade-level content standards, will leave gaps in students' skills and understandings and will leave students unprepared for the challenges they face in later grades.** Any content plan must demonstrate a means by which students can be provided the opportunity to address all grade-level content standards and to revisit and practice skills and strengthen understandings throughout the school year. The information below is an example of how to address all Grade 1 mathematics standards in a school year.

DOMAIN TOPIC	Operations and Algebraic Thinking	Measurement and Data	Number and Operations in Base Ten	Geometry
	<i>Problem-solve using addition and subtraction to build foundational understanding for multiplication</i>	<i>Relate addition and subtraction to length and time</i>	<i>Using place value to add and subtract numbers</i>	<i>Recognizing shapes, developing an understanding of sides and angles, and knowing shapes can be divided into parts to lay the foundation for fractional understanding</i>
SAMPLE TIMELINE	August/ November	November/ January	January/April	May/June
CONTENT STANDARDS	M.1.1 M.1.1 M.1.3 M.1.4 M.1.5 M.1.6 M.1.7 M.1.8	M.1.15 M.1.16 M.1.17 M.1.18	M.1.9 M.1.10 M.1.11 M.1.12 M.1.13 M.1.14	M.1.19 M.1.20
RATIONALE	In the sample above, Grade 1 mathematics begins with students supporting previous learning by solving word problems using addition, subtraction, and to begin to see the relationship between addition and subtraction. First grade students develop additive understanding to build fluency and strengthen quantitative literacy.			





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