

## Elementary Education: Curriculum, Instruction, and Assessment (5017) Match to Common Core State Standards

Knowledge and skills assessed by Mathematics questions are designated by their outline numbering in the test content specifications that appear on page 2.  
For example, IIB1 is II Mathematics / B Instruction / 1 Numbers and Operations: natural numbers, whole numbers, integers, and rational numbers.

Common Core Mathematics Domain		Grade Level						
		K	1	2	3	4	5	6
NUMBER and OPERATIONS	Counting and Cardinality (CC)	IIB1d, IIB1e						
	Operations and Algebraic Thinking (OA)*	IIB1a	IIB1a, IIB1b	IIB1a, IIB1c, IIB4a	IIB1a, IIB1b, IIB1c, IIB4a	IIB1a, IIB1c, IIB3a, IIB4a, IIB5a	IIB3a, IIB4a, IIB5a	
	Numbers and Operations in Base Ten (NBT)		IIB1a through IIB1d		IIB1a, IIB1b, IIB1c	IIB1a, IIB1b, IIB1c, IIB1d, IIB4a	IIB1a through IIB1d, IIB1f	
	Number and Operations — Fractions (NF)				IIB1d, IIB1f	IIB1a, IIB1b, IIB1d, IIB1f, IIB4a, IIB4b	IIB1a, IIB1c, IIB1g, IIB4a, IIB4b	
	Ratios and Proportional Relationships (RP)							IIB2a, IIB2b
	The Number System (NS)							IIB1a, IIB3a, IIB7a
ALGEBRA	Expressions and Equations (EE)							IIB5
GEOMETRY and MEASUREMENT	Measurement and Data (MD)**	IIB6a	IIB6a, IIB8b, IIB10a			IIB6a, IB8a, IIB8b, IB10a	IIB6a, IIB8a, IIB10a	
	Geometry (G)	IIB6b, IIB6c, IIB6e, IIB6g	IIB6c, IIB6g	IIB6c, IIB6e	IIB6b, IIB6c, IIB6e, IIB6g	IIB6b, IIB6c, IIB6e	IIB6b, IIB6c, IIB6e, IIB6f, IIB7a	IIB7a
STATISTICS and PROBABILITY	Statistics and Probability (SP)							IIB9a

\* The Operations and Algebraic Thinking domain also links to the conceptual category of Algebra.  
\*\* The Measurement and Data domain also links to the conceptual category of Statistics and Probability.

**Key**

- A vacant cell indicates that there are no CCSS Standards at that grade level in that Domain.
- A dash (—) indicates that the test does not have content specifications matching the Domain.

**II. Mathematics****A. Curriculum**

1. Knows how to sequence examples within a lesson to support understanding of concepts
2. Knows how to sequence lessons within a curriculum
3. Knows how to plan for strategies to address common student misconceptions
4. Knows how to make connections within math topics, across other disciplines, and in real-world contexts

**B. Instruction**

1. Numbers and operations: natural numbers, whole numbers, integers, and rational numbers
  - a. Knows algorithms, strategies, models, and problem situations for adding, subtracting, multiplying, and dividing numbers
  - b. Knows strategies for understanding properties of operations
  - c. Knows strategies for mental math, estimation, and rounding and knows how and when to use the strategies
  - d. Knows strategies for comparing numbers
  - e. Knows strategies for counting numbers
  - f. Knows strategies for modeling relationships between decimals and whole numbers, fractions, and percents
  - g. Knows strategies for relating a fraction to division and that  $\frac{a}{b}$  means  $a$  copies of  $\frac{1}{b}$
2. Numbers and operations: proportional relationships
  - a. Knows strategies for understanding ratios, rates, and unit rates
  - b. Knows strategies for understanding proportionality
3. Numbers and operations: Number theory
  - a. Knows strategies for understanding prime numbers, composite numbers, factors, and multiples
4. Algebraic thinking: expressions, equations, and formulas
  - a. Knows strategies for writing expressions, equations, and formulas from a context
  - b. Knows strategies for evaluating and symbolically manipulating expressions, equations, and formulas
5. Algebraic thinking: linear equations and inequalities
  - a. Knows strategies for writing an equation to represent a pattern
  - b. Knows strategies for writing and solving linear equations and inequalities

6. Geometry and measurement: one-, two-, and three-dimensional figures
  - a. Knows strategies for using standard and nonstandard tools and appropriate units to measure the length, area, perimeter, surface area, and volume of figures
  - b. Knows strategies for classifying figures and for comparing and contrasting figures
  - c. Knows strategies for understanding the vocabulary and definitions for figures
  - d. Knows strategies for using nets to represent three-dimensional figures
  - e. Knows strategies for representing figures and for modeling them with shapes and solids
  - f. Knows strategies for modeling and solving real-world problems involving two- and three-dimensional figures
  - g. Knows strategies for composing, decomposing, and manipulating figures
7. Geometry and measurement: coordinate plane
  - a. Knows strategies for plotting points
8. Geometry and measurement: measurement
  - a. Knows strategies for converting measurements
  - b. Knows strategies for representing time and elapsed time
9. Data, statistics, and probability: measures of center
  - a. Knows strategies for finding measures of center and for determining which measure is best to use in a given situation
10. Data, statistics, and probability: data
  - a. Knows strategies for collecting and displaying data to answer a statistical question
11. Data, statistics, and probability: probability
  - a. Knows strategies for linking probability to the likelihood that an event will occur

**C. Assessment**

1. Knows how to design and use formative assessment to adjust instruction
2. Knows how to design, use, and interpret summative assessments
3. Knows how to recognize when misconceptions occur and strategies for reteaching
4. Knows how to select and use appropriate assessments (e.g., observations, traditional, standardized) to evaluate student learning

