



Elementary Mathematics

2012
**ELEMENTARY MATHEMATICS STANDARDS
IN SEVENTH-DAY ADVENTIST SCHOOLS**

OFFICE OF EDUCATION | North American Division Seventh-day Adventist Church

Common Core State Standards for Mathematical Practice

1. Make sense of problems and persevere in solving them.
 2. Reason abstractly and quantitatively.
 3. Construct viable arguments and critique the reasoning of others.
 4. Model with mathematics.
 5. Use appropriate tools strategically.
 6. Attend to precision.
 7. Look for and make use of structure.
 8. Look for and express regularity in repeated reasoning.
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STANDARDS CODING

The standards have been coded so that educators can easily refer to them in their curriculum, instruction, and assessment practices. The coding system that precedes each standard begins with the content area abbreviation in letters; all are identified with M—Math (M.K.NO.1). The second part of the code refers to the grade level (M.K.NO.1). The third part of the code refers to the particular math domain (M.K.NO.1), with NO standing for Numbers and Operations. The fourth part of the code refers to a particular skill within the math domain (M.K.NO.1). The coding system that follows each standard is the Common Core State Standards for Mathematics (CCSSM) that aligns with the NAD standard. Where no CCSSM is noted, there is no corresponding CCSSM.

CREDITS

The following resources were referenced in developing *Elementary Mathematics Standards for Seventh-day Adventist Schools*: a sampling of state standards, the National Council of Teachers of Mathematics (NCTM), NAD Curriculum Guide for Mathematics, Common Core State Standards for Mathematics (CCSSM), and The Core of Adventist Education Curriculum.

DEVELOPMENT COMMITTEE MEMBERS

Carolyn Angelo	Madison Campus Elementary
Gene Brewer	Southern Union Conference
Carol Campbell	North American Division
Cathy Farkas	Middletown Christian School of SDA
Mike Furr	Southwestern Union Conference
Rayleen Hansen	Southview Christian School
Jim Martz	Lake Union Conference
Sandra Olivares	San Gabriel Academy
Liz Panda	Cincinnati Junior Academy

2012 ELEMENTARY MATHEMATICS — GEOMETRY

GRADE	CONTENT	SKILLS	GO MATH!/BIG IDEAS MATH LESSON CORRELATION
Essential Question: How do shapes and their parts help us appreciate God's creation?		Big Idea: Shapes and their parts help us appreciate the beauty and order in everything God has designed.	
K	Shapes	K.GEO.1 Identify, describe, analyze, and compare two- and three-dimensional shapes (regardless of size or orientation) by size, color, and shape; describe relative positions of objects (e.g., above, beside, behind, nearer, farther) (K.G.1,2,3,4) K.GEO.2 Create two- and three-dimensional shapes by building or drawing; compose simple shapes to form larger shapes (K.G.5,6)	
1	Shapes	1.GEO.1 Describe, build, and draw shapes with defining attributes (1.G.1) 1.GEO.2 Compose two- and three- dimensional shapes to form composite or new shapes (1.G.2)	Chapter 11.1, 11.5, 12.1, 12.2 Chapter , 11.2, 11.3, 11.4, 12.3, 12.4, 12.5, 12.6, 12.7
	Fractions	1.GEO.3 Partition circles and rectangles into two and four equal parts; describe the whole and its parts using the words halves, fourths, quarters, half of, quarter of and third of (1.G.3)	Chapter 12.8, 12.9, 12.10
2	Shapes	2.GEO.1 Recognize and draw two- and three- dimensional shapes having specified attributes (2.G.1)	Chapter 11.1, 11.2, 11.3, 11.4, 11.5
	Area	2.GEO.2 Partition a rectangle into rows and columns of same-size squares and count to find the total number of squares (2.G.2)	Chapter 11.6
	Fractions	2.GEO.3 Partition circles and rectangles into two, three, and four equal parts; describe the whole and its parts using the words halves, thirds, half of, third of, etc.; understand that equal parts need not have the same shape (2.G.3)	Chapter 11.7, 11.8, 11.9, 11.10
Assessments		Math Interviews; Checklists; Models and Drawings; Written Assessments; Art Projects	
Essential Question: What does geometry reveal about God?		Big Idea: God is revealed as the Master Designer when geometry is used as a means of describing the attributes of the physical world.	
3	Shapes	3.GEO.1 Sort and classify shapes to compare and contrast attributes (3.G.1,2)	Chapter 12.1, 12.2, 12.3, 12.4, 12.5, 12.6, 12.7, 12.8, 12.9
	Fractions	3.GEO.2 Partition shapes into equal areas and express as a fraction (3.G.2)	Chapter 12.9
4	Lines/Angles	4.GEO.1 Draw and identify points, lines, line segments, rays, angles, and perpendicular and parallel lines (4.G.1) 4.GEO.2 Classify figures with perpendicular and parallel lines, and angles of a specified size (4.G.2) 4.GEO.3 Recognize and draw lines of symmetry with two-dimensional figures (4.G.3)	Chapter 10.1, 10.3 Chapter 10.2, 10.4 Chapter 10.5, 10.6
5	Graphs	5.GEO.1 Graph points in the first quadrant of the coordinate plane to solve real-world and mathematical problems (5.G.1,2)	Chapter 9.2, 9.3, 9.4
	Sides/Angles	5.GEO.2 Classify two-dimensional figures into categories based on their properties of sides and angles (5.G.3,4)	Chapter 11.1, 11.2, 11.3, 11.4
Assessments		Written Assessments; Journal Entries; Class Discussions; Open-ended Projects and Problems; Visual and Virtual Models	
Essential Question: How does the study of geometrical principles help us to better understand God's creation?		Big Idea: Study of geometrical principles results in a greater understanding of the complexity of God's creation.	
6	Area/Volume	6.GEO.1 Solve real-world and mathematical problems involving area, surface area, and volume (6.G.1,2,3,4)	Chapter 10.1, 10.2, 10.3, 10.4, 10.5, 10.6, 10.7, 10.8, 10.9, 11.1, 11.2, 11.3, 11.4, 11.5, 11.6, 11.7/Section 6.4, 7.5, 7.6, 7.6b, Topic 4
7	Figures	7.GEO.1 Draw, construct, and describe geometrical figures and identify the relationships between them (7.G.1,2,3)	Section 5.1, 5.2, 5.3, 5.4, 5.4b, 5.5, 5.6, 5.7, 6.1, Topic 2
	Geometrical Measurements	7.GEO.2 Solve real-world and mathematical problems involving angle measure, perimeter, area, surface area, and volume (7.G.4,5,6)	Section 6.2, 6.2b, 6.3, 6.4, 6.5, 6.6, 7.1, 7.2, 7.3, 7.4, 7.5, 7.6, Topic 1
8	Figures	8.GEO.1 Understand congruence and similarity using various mediums including geometric software (8.G.1,2,3,4,5) 8.GEO.2 Understand and apply the Pythagorean Theorem (8.G.6,7,8)	Topic 1, Section 5.1, 5.2, 5.3, 5.4, 5.5 Section 6.2, 6.5
	Volume	8.GEO.3 Solve real-world and mathematical problems involving volume of cylinders, cones, and spheres (8.G.9)	Topic 2
Assessments		Open-ended Projects and Problems; Written Assessments; Journal Entries; Class Discussions; Oral Reports; Visual and Virtual Models	