

Correlation to South Carolina Academic Standards Mathematics – 2007

Fourth Grade Developing Measurement Benchmarks: Inside and Outside

In this module, students solve problems requiring the conversion of units within the metric system or the customary system. Units of time are compared and applied to everyday situations. Estimations of measurements using a variety of units are made and confirmed. Lessons address measurement of time, distance, area, volume, capacity, temperature, weight, and mass. Materials include rulers, tape measures, a class thermometer, clocks, centimeter cubes, balances and scales.

This correlation was developed by the Math Out of the Box Staff.

Send email to mootb@clemson.edu with questions and comments.



Correlation Information

The purpose of this document is to provide a correlation of Math Out of the Box lessons to the South Carolina Academic Standards for Mathematics, 2007. These correlations are intended to aid classroom teachers with lesson planning, schools with vertical planning, and districts with curriculum planning.

The correlation document is arranged in the following order:

Process Standards

Process standards that are used in the lessons of the subconcept to develop conceptual understanding of mathematics are listed in this column. It is recommended that one process standard be selected for formative assessment in each subconcept.

Content Standards

The content standards listed in this column are those that are addressed in one or more of the phases of the learning cycle in the listed lessons. Standards are connected by subconcept because conceptual knowledge is built in sets of lessons in the Math Out of the Box curriculum. These subconcepts are connected to a big idea of mathematics. The first lesson of a subconcept is an embedded pre-assessment, connecting to prior learning. The final lesson in a subconcept is designed to be formative and summative.

Horizontal Connections

Connections to mathematics standards in other strands are listed here to show the horizontal weave of the Math Out of the Box curriculum. These connections provide opportunities for the development of connections between mathematical concepts, maintenance of skills, and additional practice.

Vertical Connections

Foundation standards show the vertical articulation of the lessons. At times, an investigation is planned in a lesson to specifically build a foundation for the standards in the next grade or grades. These lessons, or parts of lessons, are essential so that concepts are connected from grade to grade.

Cross Curricular Connections

Connections to standards from other subject areas are listed to aid in cross curricular integration and the development of curriculum maps.



Big Idea: Systems of measurement can be used to solve problems in the world around us.

Subconcept: Attributes of length can be analyzed and described.

Lessons 1, 2, 3, 4, 5, 6

Focus Question: In what ways is accuracy affected when measuring length?

Process Standards	Content Standards	Horizontal Connections
<p>Mathematics Standard 4-1 (Process): The student will understand and utilize the mathematical processes of problem solving, reasoning and proof, communication, connections, and representation. Indicators 4-1.1 Analyze information to solve increasingly more sophisticated problems. 4-1.2 Construct arguments that lead to conclusions about general mathematical properties and relationships. 4-1.3 Explain and justify answers to problems on the basis of mathematical properties. 4-1.4 Generate descriptions and mathematical statements about relationships between and among classes of objects. 4-1.5 Use correct, complete, and clearly written and oral mathematical language to pose questions, communicate ideas, and extend problem situations. 4-1.6 Generalize connections between new mathematical ideas and related concepts and subjects that have been previously considered. 4-1.7 Use flexibility in mathematical representations. 4-1.8 Recognize the limitations of various forms of mathematical representations.</p>	<p>Mathematics Standard 4-5 (Measurement): The student will demonstrate through the mathematical processes an understanding of elapsed time; conversions within the U.S. Customary System; and accurate, efficient, and generalizable methods of determining area. Indicators 4-5.1 Use appropriate tools to measure objects to the nearest unit: measuring length in quarter inches, centimeters, and millimeters; measuring liquid volume in cups, quarts, and liters; and measuring weight and mass in pounds, milligrams, and kilograms. 4-5.3 Use equivalencies to convert units of measure within the U.S. Customary System: converting length in inches, feet, yards, and miles; converting weight in ounces, pounds, and tons; converting liquid volume in cups, pints, quarts, and gallons; and converting time in years, months, weeks, days, hours, minutes, and seconds. 4-5.4 Analyze the perimeter of a polygon. 4-5.9 Exemplify situations in which highly accurate measurements are required.</p>	<p>Mathematics Standard 4-3 (Algebra): The student will demonstrate through the mathematical processes an understanding of numeric and nonnumeric patterns, the representation of simple mathematical relationships, and the application of procedures to find the value of an unknown. Indicators 4-3.1 Analyze numeric, nonnumeric, and repeating patterns involving all operations and decimal patterns through hundredths. 4-3.2 Generalize a rule for numeric, nonnumeric, and repeating patterns involving all operations. 4-3.4 Translate among, letters, symbols, and words to represent quantities in simple mathematical expressions or equations. Standard 4-4 (Geometry): The student will demonstrate through the mathematical processes an understanding of the relationship between two- and three-dimensional shapes, the use of transformations to determine congruency, and the representation of location and movement within the first quadrant of a coordinate system. Indicators 4-4.1 Analyze the quadrilaterals squares, rectangles, trapezoids, rhombuses, and parallelograms according to their properties.</p>

Vertical Connections	Cross Curricular Connections
<p>Grade 5 Standard 5-5 (Measurement): The student will demonstrate through the mathematical processes an understanding of the units and systems of measurement and the application of tools and formulas to determine measurement.</p> <p>Indicators</p> <p>5-5.1 Use appropriate tools and units to measure objects to the precision of one-eighth inch.</p> <p>5-5.3 Use equivalencies to convert units of measure within the metric system: converting length in millimeters, centimeters, meters, and kilometers; converting liquid volume in milliliters, centiliters, liters, and kiloliters; and converting mass in milligrams, centigrams, grams, and kilograms.</p> <p>5-5.4 Apply formulas to determine the perimeters and areas of triangles, rectangles, and parallelograms.</p> <p>5-5.8 Recall equivalencies associated with length, liquid volume, and mass: 10 milliliters = 1 centimeter, 100 centimeters = 1 meter, 1000 meters = 1 kilometer; 10 milliliters = 1 centiliter, 100 centiliters = 1 liter, 1000 liters = 1 kiloliter; and 10 milligrams = 1 centigram, 100 centigrams = 1 gram, 1000 grams = 1 kilogram.</p> <p>Grade 6 Standard 6-5 (Measurement): The student will demonstrate through the mathematical processes an understanding of surface area; the perimeter and area of irregular shapes; the relationships among the circumference, diameter, and radius of a circle; the use of proportions to determine unit rates; and the use of scale to determine distance.</p> <p>Indicators</p> <p>6-5.4 Apply strategies and procedures to estimate the perimeters and areas of irregular shapes.</p> <p>6-5.5 Apply strategies and procedures of combining and subdividing to find the perimeters and areas of irregular shapes.</p> <p>Grade 7 Standard 7-5 (Measurement): The student will demonstrate through the mathematical processes an understanding of how to use ratio and proportion to solve problems involving scale factors and rates and how to use one-step unit analysis to convert between and within the U.S. Customary System and the metric system.</p> <p>Indicators</p> <p>7-5.3 Generate strategies to determine the perimeters and areas of trapezoids.</p>	<p>Language Arts Standard 4-1 (Reading): The student will read and comprehend a variety of literary texts in print and nonprint formats.</p> <p>Indicators</p> <p>4-1.1 Analyze literary texts to draw conclusions and make inferences.</p> <p>Standard 4-2 (Reading): The student will read and comprehend a variety of informational texts in print and nonprint formats.</p> <p>Indicators</p> <p>4-2.2 Analyze informational texts to draw conclusions and make inferences.</p> <p>4-2.5 Carry out independent reading for extended periods of time to gain information.</p> <p>4-2.7 Use graphic features such as illustrations, graphs, charts, maps, diagrams, and graphic organizers as sources of information.</p> <p>Standard 4-4 (Writing): The student will create written work that has a clear focus, sufficient detail, coherent organization, effective use of voice, and correct use of the conventions of written Standard American English.</p> <p>Indicators</p> <p>4-4.2 Use complete sentences in a variety of types (including simple and compound sentences) in writing.</p> <p>4-4.6 Use revision strategies to improve word choice and the organization and development of ideas in written works.</p> <p>Science Standard 4-1 (Scientific Inquiry): The student will demonstrate an understanding of scientific inquiry, including the processes, skills, and mathematical thinking necessary to conduct a simple scientific investigation.</p> <p>Indicators</p> <p>4-1.6 Construct and interpret diagrams, tables, and graphs, made from recorded measurements and observations.</p>



Big Idea: Systems of measurement can be used to solve problems in the world around us.

Subconcept: Attributes of area and volume can be analyzed and described.

Lessons 7, 8, 9, 10

Focus Question: What strategies can be used to determine areas of rectangles and triangles?

Process Standards	Content Standards	Horizontal Connections
<p>Mathematics Standard 4-1 (Process): The student will understand and utilize the mathematical processes of problem solving, reasoning and proof, communication, connections, and representation.</p> <p>Indicators</p> <p>4-1.1 Analyze information to solve increasingly more sophisticated problems.</p> <p>4-1.2 Construct arguments that lead to conclusions about general mathematical properties and relationships.</p> <p>4-1.3 Explain and justify answers to problems on the basis of mathematical properties.</p> <p>4-1.4 Generate descriptions and mathematical statements about relationships between and among classes of objects.</p> <p>4-1.5 Use correct, complete, and clearly written and oral mathematical language to pose questions, communicate ideas, and extend problem situations.</p> <p>4-1.6 Generalize connections between new mathematical ideas and related concepts and subjects that have been previously considered.</p> <p>4-1.7 Use flexibility in mathematical representations.</p> <p>4-1.8 Recognize the limitations of various forms of mathematical representations.</p>	<p>Mathematics Standard 4-5 (Measurement): The student will demonstrate through the mathematical processes an understanding of elapsed time; conversions within the U.S. Customary System; and accurate, efficient, and generalizable methods of determining area.</p> <p>Indicators</p> <p>4-5.1 Use appropriate tools to measure objects to the nearest unit: measuring length in quarter inches, centimeters, and millimeters; measuring liquid volume in cups, quarts, and liters; and measuring weight and mass in pounds, milligrams, and kilograms.</p> <p>4-5.5 Generate strategies to determine the area of rectangles and triangles.</p>	<p>Mathematics Standard 4-3 (Algebra): The student will demonstrate through the mathematical processes an understanding of numeric and nonnumeric patterns, the representation of simple mathematical relationships, and the application of procedures to find the value of an unknown.</p> <p>Indicators</p> <p>4-3.1 Analyze numeric, nonnumeric, and repeating patterns involving all operations and decimal patterns through hundredths.</p> <p>4-3.2 Generalize a rule for numeric, nonnumeric, and repeating patterns involving all operations.</p> <p>4-3.4 Translate among, letters, symbols, and words to represent quantities in simple mathematical expressions or equations.</p> <p>Standard 4-4 (Geometry): The student will demonstrate through the mathematical processes an understanding of the relationship between two- and three-dimensional shapes, the use of transformations to determine congruency, and the representation of location and movement within the first quadrant of a coordinate system.</p> <p>Indicators</p> <p>4-4.1 Analyze the quadrilaterals squares, rectangles, trapezoids, rhombuses, and parallelograms according to their properties.</p>

Notes:

Vertical Connections	Cross Curricular Connections
<p>Grade 5 Standard 5-5 (Measurement): The student will demonstrate through the mathematical processes an understanding of the units and systems of measurement and the application of tools and formulas to determine measurement. Indicators 5-5.4 Apply formulas to determine the perimeters and areas of triangles, rectangles, and parallelograms. 5-5.5 Apply strategies and formulas to determine the volume of rectangular prisms.</p> <p>Grade 6 Standard 6-5 (Measurement): The student will demonstrate through the mathematical processes an understanding of surface area; the perimeter and area of irregular shapes; the relationships among the circumference, diameter, and radius of a circle; the use of proportions to determine unit rates; and the use of scale to determine distance. Indicators 6-5.3 Generate strategies to determine the surface area of a rectangular prism and a cylinder. 6-5.4 Apply strategies and procedures to estimate the perimeters and areas of irregular shapes. 6-5.5 Apply strategies and procedures of combining and subdividing to find the perimeters and areas of irregular shapes.</p> <p>Grade 7 Standard 7-5 (Measurement): The student will demonstrate through the mathematical processes an understanding of how to use ratio and proportion to solve problems involving scale factors and rates and how to use one-step unit analysis to convert between and within the U.S. Customary System and the metric system. Indicators 7-5.2 Apply strategies and formulas to determine the surface area and volume of the three-dimensional shapes prism, pyramid, and cylinder. 7-5.3 Generate strategies to determine the perimeters and areas of trapezoids.</p>	<p>Language Arts Standard 4-1 (Reading): The student will read and comprehend a variety of literary texts in print and nonprint formats. Indicators 4-1.1 Analyze literary texts to draw conclusions and make inferences.</p> <p>Standard 4-2 (Reading): The student will read and comprehend a variety of informational texts in print and nonprint formats. Indicators 4-2.2 Analyze informational texts to draw conclusions and make inferences. 4-2.5 Carry out independent reading for extended periods of time to gain information. 4-2.7 Use graphic features such as illustrations, graphs, charts, maps, diagrams, and graphic organizers as sources of information.</p> <p>Standard 4-4 (Writing): The student will create written work that has a clear focus, sufficient detail, coherent organization, effective use of voice, and correct use of the conventions of written Standard American English. Indicators 4-4.2 Use complete sentences in a variety of types (including simple and compound sentences) in writing. 4-4.6 Use revision strategies to improve word choice and the organization and development of ideas in written works.</p> <p>Science Standard 4-1 (Scientific Inquiry): The student will demonstrate an understanding of scientific inquiry, including the processes, skills, and mathematical thinking necessary to conduct a simple scientific investigation. Indicators 4-1.6 Construct and interpret diagrams, tables, and graphs, made from recorded measurements and observations.</p>

Notes:

Big Idea: Systems of measurement can be used to solve problems in the world around us.

Subconcept: Attributes of time and temperature can be analyzed and described.

Lessons 11, 12, 13, 14

Focus Question: In what ways do scales used to determine time and temperature compare to scales used to determine length?

Process Standards	Content Standards	Horizontal Connections
<p>Mathematics Standard 4-1 (Process): The student will understand and utilize the mathematical processes of problem solving, reasoning and proof, communication, connections, and representation.</p> <p>Indicators</p> <p>4-1.1 Analyze information to solve increasingly more sophisticated problems.</p> <p>4-1.2 Construct arguments that lead to conclusions about general mathematical properties and relationships.</p> <p>4-1.3 Explain and justify answers to problems on the basis of mathematical properties.</p> <p>4-1.4 Generate descriptions and mathematical statements about relationships between and among classes of objects.</p> <p>4-1.5 Use correct, complete, and clearly written and oral mathematical language to pose questions, communicate ideas, and extend problem situations.</p> <p>4-1.6 Generalize connections between new mathematical ideas and related concepts and subjects that have been previously considered.</p> <p>4-1.7 Use flexibility in mathematical representations.</p> <p>4-1.8 Recognize the limitations of various forms of mathematical representations.</p>	<p>Mathematics Standard 4-5 (Measurement): The student will demonstrate through the mathematical processes an understanding of elapsed time; conversions within the U.S. Customary System; and accurate, efficient, and generalizable methods of determining area.</p> <p>Indicators</p> <p>4-5.3 Use equivalencies to convert units of measure within the U.S. Customary System: converting length in inches, feet, yards, and miles; converting weight in ounces, pounds, and tons; converting liquid volume in cups, pints, quarts, and gallons; and converting time in years, months, weeks, days, hours, minutes, and seconds.</p> <p>4-5.6 Apply strategies and procedures to determine the amount of elapsed time in hours and minutes within a 12-hour period, either a.m. or p.m.</p> <p>4-5.7 Use Celsius and Fahrenheit thermometers to determine temperature changes during time intervals.</p>	<p>Mathematics Standard 4-3 (Algebra): The student will demonstrate through the mathematical processes an understanding of numeric and nonnumeric patterns, the representation of simple mathematical relationships, and the application of procedures to find the value of an unknown.</p> <p>Indicators</p> <p>4-3.6 Illustrate situations that show change over time as either increasing, decreasing, or varying.</p> <p>Standard 4-6 Data Analysis and Probability): The student will demonstrate through the mathematical processes an understanding of the impact of data-collection methods, the appropriate graph for categorical or numerical data, and the analysis of possible outcomes for a simple event.</p> <p>Indicators</p> <p>4-6.1 Compare how data-collection methods impact survey results.</p> <p>4-6.2 Interpret data in tables, line graphs, bar graphs, and double bar graphs whose scale increments are greater than or equal to 1.</p> <p>4-6.3 Organize data in tables, line graphs, and bar graphs whose scale increments are greater than or equal to 1.</p> <p>4-6.4 Distinguish between categorical and numerical data.</p> <p>4-6.5 Match categorical and numerical data to appropriate graphs.</p>

Notes:

Vertical Connections	Cross Curricular Connections
<p>Grade 5 Standard 5-5 (Measurement): The student will demonstrate through the mathematical processes an understanding of the units and systems of measurement and the application of tools and formulas to determine measurement. Indicators 5-5.6 Apply procedures to determine the amount of elapsed time in hours, minutes, and seconds within a 24-hour period. 5-5.7 Understand the relationship between the Celsius and Fahrenheit temperature scales.</p> <p>Grade 6 Standard 6-3 (Algebra): The student will demonstrate through the mathematical processes an understanding of writing, interpreting, and using mathematical expressions, equations, and inequalities. Indicators 6-3.1 Analyze numeric and algebraic patterns and pattern relationships. 6-3.5 Use inverse operations to solve one-step equations that have whole-number solutions and variables with whole-number coefficients.</p> <p>Grade 7 Standard 7-3 (Algebra): The student will demonstrate through the mathematical processes an understanding of proportional relationships. Indicators 7-3.2 Analyze tables and graphs to describe the rate of change between and among quantities. 7-3.3 Understand slope as a constant rate of change.</p>	<p>Language Arts Standard 4-1 (Reading): The student will read and comprehend a variety of literary texts in print and nonprint formats. Indicators 4-1.1 Analyze literary texts to draw conclusions and make inferences.</p> <p>Standard 4-2 (Reading): The student will read and comprehend a variety of informational texts in print and nonprint formats. Indicators 4-2.2 Analyze informational texts to draw conclusions and make inferences. 4-2.5 Carry out independent reading for extended periods of time to gain information. 4-2.7 Use graphic features such as illustrations, graphs, charts, maps, diagrams, and graphic organizers as sources of information.</p> <p>Standard 4-4 (Writing): The student will create written work that has a clear focus, sufficient detail, coherent organization, effective use of voice, and correct use of the conventions of written Standard American English. Indicators 4-4.2 Use complete sentences in a variety of types (including simple and compound sentences) in writing. 4-4.6 Use revision strategies to improve word choice and the organization and development of ideas in written works.</p> <p>Standard 4-6 (Researching): The student will access and use information from a variety of sources. Indicators 4-6.2 Use print sources such as books, magazines, charts, graphs, diagrams, dictionaries, encyclopedias, atlases, thesauri, newspapers, and almanacs and nonprint media to access information. 4-6.6 Use the Internet with the aid of a teacher. 4-6.7 Use vocabulary (including Standard American English) that is appropriate for the particular audience or purpose.</p> <p>Science Standard 4-1 (Scientific Inquiry): The student will demonstrate an understanding of scientific inquiry, including the processes, skills, and mathematical thinking necessary to conduct a simple scientific investigation.</p>



	<p>Indicators</p> <p>4-1.5 Recognize the correct placement of variables on a line graph.</p> <p>4-1.6 Construct and interpret diagrams, tables, and graphs, made from recorded measurements and observations.</p> <p>4-1.7 Use appropriate safety procedures when conducting investigations.</p> <p>Science</p> <p>Standard 4-4 (Earth Science): The student will demonstrate an understanding of weather patterns and phenomena.</p> <p>Indicators</p> <p>4-4.3 Compare daily and seasonal changes in weather conditions (including wind speed and direction, precipitation, and temperature) and patterns.</p> <p>4-4.5 Carry out the procedures for data collecting and measuring weather conditions (including wind speed and direction, precipitation, and temperature) by using appropriate tools and instruments.</p>
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Notes:

Big Idea: Systems of measurement can be used to solve problems in the world around us.

Subconcept: Attributes of capacity and weight can be analyzed and described.

Lessons 15, 16, 17, 18, 19, 20

Focus Question: In what ways do scales used to determine capacity, weight, and mass compare to scales used to determine length?

Process Standards	Content Standards	Horizontal Connections
<p>Mathematics Standard 4-1 (Process): The student will understand and utilize the mathematical processes of problem solving, reasoning and proof, communication, connections, and representation.</p> <p>Indicators</p> <p>4-1.1 Analyze information to solve increasingly more sophisticated problems.</p> <p>4-1.2 Construct arguments that lead to conclusions about general mathematical properties and relationships.</p> <p>4-1.3 Explain and justify answers to problems on the basis of mathematical properties.</p> <p>4-1.4 Generate descriptions and mathematical statements about relationships between and among classes of objects.</p> <p>4-1.5 Use correct, complete, and clearly written and oral mathematical language to pose questions, communicate ideas, and extend problem situations.</p> <p>4-1.6 Generalize connections between new mathematical ideas and related concepts and subjects that have been previously considered.</p> <p>4-1.7 Use flexibility in mathematical representations.</p> <p>4-1.8 Recognize the limitations of various forms of mathematical representations.</p>	<p>Mathematics Standard 4-5 (Measurement): The student will demonstrate through the mathematical processes an understanding of elapsed time; conversions within the U.S. Customary System; and accurate, efficient, and generalizable methods of determining area.</p> <p>Indicators</p> <p>4-5.1 Use appropriate tools to measure objects to the nearest unit: measuring length in quarter inches, centimeters, and millimeters; measuring liquid volume in cups, quarts, and liters; and measuring weight and mass in pounds, milligrams, and kilograms.</p> <p>4-5.3 Use equivalencies to convert units of measure within the U.S. Customary System: converting length in inches, feet, yards, and miles; converting weight in ounces, pounds, and tons; converting liquid volume in cups, pints, quarts, and gallons; and converting time in years, months, weeks, days, hours, minutes, and seconds.</p> <p>4-5.8 Recall equivalences associated with liquid volume, time, weight, and length: 8 liquid ounces = 1 cup, 2 cups = 1 pint, 2 pints = 1 quart, 4 quarts = 1 gallon; 365 days = 1 year, 52 weeks = 1 year; 16 ounces = 1 pound, 2,000 pounds = 1 ton; and 5,280 feet = 1 mile.</p>	<p>Mathematics Standard 4-3 (Algebra): The student will demonstrate through the mathematical processes an understanding of numeric and nonnumeric patterns, the representation of simple mathematical relationships, and the application of procedures to find the value of an unknown.</p> <p>Indicators</p> <p>4-3.1 Analyze numeric, nonnumeric, and repeating patterns involving all operations and decimal patterns through hundredths.</p> <p>4-3.2 Generalize a rule for numeric, nonnumeric, and repeating patterns involving all operations.</p> <p>Standard 4-6 Data Analysis and Probability): The student will demonstrate through the mathematical processes an understanding of the impact of data-collection methods, the appropriate graph for categorical or numerical data, and the analysis of possible outcomes for a simple event.</p> <p>Indicators</p> <p>4-6.1 Compare how data-collection methods impact survey results.</p> <p>4-6.2 Interpret data in tables, line graphs, bar graphs, and double bar graphs whose scale increments are greater than or equal to 1.</p> <p>4-6.3 Organize data in tables, line graphs, and bar graphs whose scale increments are greater than or equal to 1.</p> <p>4-6.4 Distinguish between categorical and numerical data.</p> <p>4-6.5 Match categorical and numerical data to appropriate graphs.</p>

Notes:



Vertical Connections	Cross Curricular Connections
<p>Standard 5-5 (Measurement): The student will demonstrate through the mathematical processes an understanding of the units and systems of measurement and the application of tools and formulas to determine measurement.</p> <p>Indicators</p> <p>5-5.3 Use equivalencies to convert units of measure within the metric system: converting length in millimeters, centimeters, meters, and kilometers; converting liquid volume in milliliters, centiliters, liters, and kiloliters; and converting mass in milligrams, centigrams, grams, and kilograms.</p> <p>5-5.8 Recall equivalencies associated with length, liquid volume, and mass: 10 milliliters = 1 centimeter, 100 centimeters = 1 meter, 1000 meters = 1 kilometer; 10 milliliters = 1 centiliter, 100 centiliters = 1 liter, 1000 liters = 1 kiloliter; and 10 milligrams = 1 centigram, 100 centigrams = 1 gram, 1000 grams = 1 kilogram.</p> <p>Standard 6-5 (Measurement): The student will demonstrate through the mathematical processes an understanding of surface area; the perimeter and area of irregular shapes; the relationships among the circumference, diameter, and radius of a circle; the use of proportions to determine unit rates; and the use of scale to determine distance.</p> <p>Indicators</p> <p>6-5.6 Use proportions to determine unit rates.</p> <p>Standard 7-5 (Measurement): The student will demonstrate through the mathematical processes an understanding of how to use ratio and proportion to solve problems involving scale factors and rates and how to use one-step unit analysis to convert between and within the U.S. Customary System and the metric system.</p> <p>Indicators</p> <p>7-5.4 Recall equivalencies associated with length, mass and weight, and liquid volume: 1 square yard = 9 square feet, 1 cubic meter = 1 million cubic centimeters, 1 kilometer = $\frac{5}{8}$ mile, 1 inch = 2.54 centimeters; 2.2 kilograms = 1 pound; and 1.06 quarts = 1 liter.</p> <p>7-5.5 Use one-step unit analysis to convert between and within the U.S. Customary System and the metric system.</p>	<p>Language Arts</p> <p>Standard 4-1 (Reading): The student will read and comprehend a variety of literary texts in print and nonprint formats.</p> <p>Indicators</p> <p>4-1.1 Analyze literary texts to draw conclusions and make inferences.</p> <p>Standard 4-2 (Reading): The student will read and comprehend a variety of informational texts in print and nonprint formats.</p> <p>Indicators</p> <p>4-2.2 Analyze informational texts to draw conclusions and make inferences.</p> <p>4-2.5 Carry out independent reading for extended periods of time to gain information.</p> <p>4-2.7 Use graphic features such as illustrations, graphs, charts, maps, diagrams, and graphic organizers as sources of information.</p> <p>Standard 4-4 (Writing): The student will create written work that has a clear focus, sufficient detail, coherent organization, effective use of voice, and correct use of the conventions of written Standard American English.</p> <p>Indicators</p> <p>4-4.2 Use complete sentences in a variety of types (including simple and compound sentences) in writing.</p> <p>4-4.6 Use revision strategies to improve word choice and the organization and development of ideas in written works.</p> <p>Standard 4-6 (Researching): The student will access and use information from a variety of sources.</p> <p>Indicators</p> <p>4-6.1 Clarify and refine a research topic.</p> <p>4-6.2 Use print sources such as books, magazines, charts, graphs, diagrams, dictionaries, encyclopedias, atlases, thesauri, newspapers, and almanacs and nonprint media to access information.</p> <p>4-6.4 Paraphrase research information accurately and meaningfully.</p> <p>4-6.6 Use the Internet with the aid of a teacher.</p> <p>4-6.7 Use vocabulary (including Standard American English) that is appropriate for the particular audience or purpose.</p> <p>Science</p> <p>Standard 4-1 (Scientific Inquiry): The student will demonstrate an understanding of scientific inquiry, including the processes, skills, and mathematical</p>



	thinking necessary to conduct a simple scientific investigation. Indicators 4-1.6 Construct and interpret diagrams, tables, and graphs, made from recorded measurements and observations.
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Notes: