
Grade 7 | South Carolina College and Career Ready Standards for Mathematics Correlation to *Eureka Math*²TM

When the original *Eureka Math*[®] curriculum was released, it quickly became the most widely used K–5 mathematics curriculum in the country. Now, the Great Minds[®] teacher–writers have created *Eureka Math*²TM, a groundbreaking new curriculum that helps teachers deliver exponentially better math instruction while still providing students with the same deep understanding of and fluency in math. *Eureka Math*² carefully sequences mathematical content to maximize vertical alignment—a principle tested and proven to be essential in students’ mastery of math—from kindergarten through high school.

While this innovative new curriculum includes all the trademark *Eureka Math* aha moments that have been delighting students and teachers for years, it also boasts these exciting new features:

Teachability

*Eureka Math*² employs streamlined materials that allow teachers to plan more efficiently and focus their energy on delivering high-quality instruction that meets the individual needs of their students. Differentiation suggestions, slide decks, digital interactives, and multiple forms of assessment are just a few of the resources built right into the teacher materials.

Accessibility

*Eureka Math*² incorporates Universal Design for Learning principles so all learners can access the mathematics and take on challenging math concepts. Student supports are built into the instructional design and are clearly identified in the *Teach* book. Further, the curriculum carries a focus on readability. By eliminating unnecessary words and using simple, clear sentences, the *Eureka Math*² teacher–writers have created one of the most readable mathematics curricula on the market. The curriculum’s readability and accessibility help all students see themselves as mathematical thinkers and doers who are fully capable of owning their mathematics learning.

Digital Engagement

The digital elements of *Eureka Math*² add to students’ engagement with the math. The curriculum provides teachers with digital slides for each lesson. In addition, each grade level includes wordless videos that spark students’ interest and curiosity. Students at all levels work through mathematical explorations that help lead to their own mathematical discoveries. Digital lessons and videos provide opportunities for students to wonder, explore, and make sense of mathematics, which contributes to the development of a strong, positive mathematical identity.

Standards for Mathematical Practice

Aligned Components of *Eureka Math*²

<p>MP.1 Make sense of problems and persevere in solving them.</p>	<p>Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.</p>
<p>MP.2 Reason abstractly and quantitatively.</p>	<p>Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.</p>
<p>MP.3 Construct viable arguments and critique the reasoning of others.</p>	<p>Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.</p>
<p>MP.4 Model with mathematics.</p>	<p>Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.</p>
<p>MP.5 Use appropriate tools strategically.</p>	<p>Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.</p>
<p>MP.6 Attend to precision.</p>	<p>Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.</p>
<p>MP.7 Look for and make use of structure.</p>	<p>Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.</p>
<p>MP.8 Look for and express regularity in repeated reasoning.</p>	<p>Lessons in every module engage students in mathematical practices. These are indicated in margin notes included with every lesson.</p>

The Number System

7.NS The Number System

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Aligned Components of *Eureka Math*²

<p>7.NS.1</p> <p>Extend prior knowledge of operations with positive rational numbers to add and to subtract all rational numbers and represent the sum or difference on a number line.</p>	<p>7 M2 Lesson 23: Properties of Operations with Rational Numbers</p> <p>7 M2 Lesson 24: Order of Operations with Rational Numbers</p>
<p>7.NS.1.a</p> <p>Understand that the additive inverse of a number is its opposite and their sum is equal to zero.</p>	<p>7 M2 Lesson 1: Combining Opposites</p> <p>7 M2 Lesson 12: The Integer Game</p>
<p>7.NS.1.b</p> <p>Understand that the sum of two rational numbers $(p + q)$ represents a distance from p on the number line equal to q where the direction is indicated by the sign of q.</p>	<p>7 M2 Lesson 1: Combining Opposites</p> <p>7 M2 Lesson 2: Adding Integers</p> <p>7 M2 Lesson 3: Adding Integers Efficiently</p> <p>7 M2 Lesson 5: Decomposing Rational Numbers to Make Addition More Efficient</p> <p>7 M2 Lesson 6: Adding Rational Numbers</p> <p>7 M2 Lesson 8: Subtracting Integers, Part 1</p>
<p>7.NS.1.c</p> <p>Translate between the subtraction of rational numbers and addition using the additive inverse, $p - q = p + (-q)$.</p>	<p>7 M2 Lesson 7: What Subtraction Means</p> <p>7 M2 Lesson 8: Subtracting Integers, Part 1</p> <p>7 M2 Lesson 9: Subtracting Integers, Part 2</p> <p>7 M2 Lesson 10: Subtracting Rational Numbers, Part 1</p> <p>7 M2 Lesson 11: Subtracting Rational Numbers, Part 2</p>

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<p>7.NS.1.d</p> <p>Demonstrate that the distance between two rational numbers on the number line is the absolute value of their difference.</p>	<p>7 M2 Lesson 7: What Subtraction Means</p> <p>7 M2 Lesson 8: Subtracting Integers, Part 1</p> <p>7 M2 Lesson 9: Subtracting Integers, Part 2</p> <p>7 M2 Lesson 10: Subtracting Rational Numbers, Part 1</p> <p>7 M2 Lesson 11: Subtracting Rational Numbers, Part 2</p>
<p>7.NS.1.e</p> <p>Apply mathematical properties (e.g., commutative, associative, distributive, or the properties of identity and inverse elements) to add and subtract rational numbers.</p>	<p>7 M2 Lesson 4: KAKOOMA[®]</p> <p>7 M2 Lesson 5: Decomposing Rational Numbers to Make Addition More Efficient</p> <p>7 M2 Lesson 6: Adding Rational Numbers</p> <p>7 M2 Lesson 9: Subtracting Integers, Part 2</p> <p>7 M2 Lesson 10: Subtracting Rational Numbers, Part 1</p> <p>7 M2 Lesson 11: Subtracting Rational Numbers, Part 2</p> <p>7 M2 Lesson 12: The Integer Game</p>
<p>7.NS.2</p> <p>Extend prior knowledge of operations with positive rational numbers to multiply and to divide all rational numbers.</p>	<p>7 M2 Lesson 23: Properties of Operations with Rational Numbers</p> <p>7 M2 Lesson 24: Order of Operations with Rational Numbers</p>
<p>7.NS.2.a</p> <p>Understand that the multiplicative inverse of a number is its reciprocal and their product is equal to one.</p>	<p>6 M4 Lesson 20: Solving Equations with Multiplication and Division</p>
<p>7.NS.2.b</p> <p>Understand sign rules for multiplying rational numbers.</p>	<p>7 M2 Topic C: Multiplying Rational Numbers</p>

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<p>7.NS.2.c</p> <p>Understand sign rules for dividing rational numbers and that a quotient of integers (with a non-zero divisor) is a rational number.</p>	<p>7 M2 Lesson 18: Understanding Negative Divisors</p> <p>7 M2 Lesson 21: Comparing and Ordering Rational Numbers</p>
<p>7.NS.2.d</p> <p>Apply mathematical properties (e.g., commutative, associative, distributive, or the properties of identity and inverse elements) to multiply and divide rational numbers.</p>	<p>7 M2 Topic C: Multiplying Rational Numbers</p> <p>7 M2 Lesson 17: Understanding Negative Dividends</p> <p>7 M2 Lesson 18: Understanding Negative Divisors</p> <p>7 M2 Lesson 22: Multiplication and Division Expressions</p> <p>7 M2 Lesson 24: Order of Operations with Rational Numbers</p>
<p>7.NS.2.e</p> <p>Understand that some rational numbers can be written as integers and all rational numbers can be written as fractions or decimal numbers that terminate or repeat.</p>	<p>7 M2 Lesson 19: Rational Numbers as Decimals, Part 1</p> <p>7 M2 Lesson 20: Rational Numbers as Decimals, Part 2</p> <p>7 M2 Lesson 21: Comparing and Ordering Rational Numbers</p>
<p>7.NS.3</p> <p>Apply the concepts of all four operations with rational numbers to solve real-world and mathematical problems.</p>	<p>7 M2 Lesson 25: Writing and Evaluating Expressions with Rational Numbers, Part 1</p> <p>7 M2 Lesson 26: Writing and Evaluating Expressions with Rational Numbers, Part 2</p>
<p>7.NS.4</p> <p>Understand and apply the concepts of comparing and ordering to rational numbers.</p>	<p><i>This standard is fully addressed by the lessons aligned to its subsections.</i></p>

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<p>7.NS.4.a</p> <p>Interpret statements using less than (<), greater than (>), less than or equal to (\leq), greater than or equal to (\geq), and equal to (=) as relative locations on the number line.</p>	<p>6 M3 Lesson 5: Comparing Rational Numbers</p> <p>6 M3 Lesson 6: Ordering Rational Numbers</p> <p><i>Supplemental material is necessary to address the less than or equal to and greater than or equal to symbols.</i></p>
<p>7.NS.4.b</p> <p>Use concepts of equality and inequality to write and explain real-world and mathematical situations.</p>	<p>6 M3 Lesson 5: Comparing Rational Numbers</p> <p>6 M3 Lesson 6: Ordering Rational Numbers</p>
<p>7.NS.5</p> <p>Extend prior knowledge to translate among multiple representations of rational numbers (fractions, decimal numbers, percentages). Exclude the conversion of repeating decimal numbers to fractions.</p>	<p>6 M1 Lesson 22: Introduction to Percents</p> <p>7 M2 Lesson 19: Rational Numbers as Decimals, Part 1</p> <p>7 M2 Lesson 20: Rational Numbers as Decimals, Part 2</p> <p>7 M2 Lesson 21: Comparing and Ordering Rational Numbers</p>

Ratios and Proportional Relationships

7.RP Ratios and Proportional Relationships

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<p>7.RP.1</p> <p>Compute unit rates, including those involving complex fractions, with like or different units.</p>	<p>7 M1 Lesson 1: An Experiment with Ratios and Rates</p> <p>7 M1 Lesson 2: Exploring Tables of Proportional Relationships</p> <p>7 M1 Lesson 3: Identifying Proportional Relationships in Tables</p>
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<p>7.RP.2</p> <p>Identify and model proportional relationships given multiple representations, including tables, graphs, equations, diagrams, verbal descriptions, and real-world situations.</p>	<p><i>This standard is fully addressed by the lessons aligned to its subsections.</i></p>
<p>7.RP.2.a</p> <p>Determine when two quantities are in a proportional relationship.</p>	<p>7 M1 Topic A: Understanding Proportional Relationships</p> <p>7 M1 Lesson 14: Extreme Bicycles</p>
<p>7.RP.2.b</p> <p>Recognize or compute the constant of proportionality.</p>	<p>7 M1 Lesson 4: Exploring Graphs of Proportional Relationships</p> <p>7 M1 Lesson 5: Analyzing Graphs of Proportional Relationships</p> <p>7 M1 Lesson 6: Identifying Proportional Relationships in Written Descriptions</p> <p>7 M1 Lesson 8: Relating Representations of Proportional Relationships</p> <p>7 M1 Lesson 9: Comparing Proportional Relationships</p> <p>7 M1 Lesson 11: Constant Rates</p> <p>7 M1 Lesson 12: Multi-Step Ratio Problems, Part 1</p> <p>7 M1 Lesson 13: Multi-Step Ratio Problems, Part 2</p> <p>7 M1 Lesson 16: Using a Scale Factor</p> <p>7 M1 Lesson 18: Relating Areas of Scale Drawings</p>
<p>7.RP.2.c</p> <p>Understand that the constant of proportionality is the unit rate.</p>	<p>7 M1 Lesson 4: Exploring Graphs of Proportional Relationships</p> <p>7 M1 Lesson 5: Analyzing Graphs of Proportional Relationships</p> <p>7 M1 Lesson 6: Identifying Proportional Relationships in Written Descriptions</p> <p>7 M1 Lesson 8: Relating Representations of Proportional Relationships</p>

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<p>7.RP.2.c <i>continued</i></p>	<p>7 M1 Lesson 9: Comparing Proportional Relationships</p> <p>7 M1 Lesson 11: Constant Rates</p> <p>7 M1 Lesson 12: Multi-Step Ratio Problems, Part 1</p> <p>7 M1 Lesson 13: Multi-Step Ratio Problems, Part 2</p> <p>7 M1 Lesson 16: Using a Scale Factor</p> <p>7 M1 Lesson 18: Relating Areas of Scale Drawings</p>
<p>7.RP.2.d</p> <p>Use equations to model proportional relationships.</p>	<p>7 M1 Lesson 2: Exploring Tables of Proportional Relationships</p> <p>7 M1 Lesson 3: Identifying Proportional Relationships in Tables</p> <p>7 M1 Lesson 8: Relating Representations of Proportional Relationships</p> <p>7 M1 Lesson 10: Applying Proportional Reasoning</p> <p>7 M1 Lesson 11: Constant Rates</p> <p>7 M1 Lesson 12: Multi-Step Ratio Problems, Part 1</p> <p>7 M1 Lesson 13: Multi-Step Ratio Problems, Part 2</p> <p>7 M5 Lesson 1: Proportionality and Scale Factor</p> <p>7 M5 Lesson 4: Proportion and Percent</p> <p>7 M5 Lesson 5: Common Denominators or Common Numerators</p>
<p>7.RP.2.e</p> <p>Investigate the graph of a proportional relationship and explain the meaning of specific points (e.g., origin, unit rate) in the context of the situation.</p>	<p>7 M1 Lesson 4: Exploring Graphs of Proportional Relationships</p> <p>7 M1 Lesson 5: Analyzing Graphs of Proportional Relationships</p> <p>7 M1 Lesson 9: Comparing Proportional Relationships</p>

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<p>7.RP.3</p> <p>Solve real-world and mathematical problems involving ratios and percentages using proportional reasoning (e.g., multi-step dimensional analysis, percent increase/decrease, tax).</p>	<p>7 M1 Lesson 7: Handstand Sprint</p> <p>7 M1 Lesson 10: Applying Proportional Reasoning</p> <p>7 M1 Lesson 11: Constant Rates</p> <p>7 M1 Lesson 12: Multi-Step Ratio Problems, Part 1</p> <p>7 M1 Lesson 13: Multi-Step Ratio Problems, Part 2</p> <p>7 M5 Lesson 2: Racing for Percents</p> <p>7 M5 Lesson 3: Percent as a Rate per 100</p> <p>7 M5 Lesson 4: Proportion and Percent</p> <p>7 M5 Lesson 5: Common Denominators or Common Numerators</p> <p>7 M5 Topic B: Part of 100</p> <p>7 M5 Lesson 10: Percent Increase</p> <p>7 M5 Lesson 11: Percent Decrease</p> <p>7 M5 Lesson 12: More Discounts</p> <p>7 M5 Lesson 13: What is the Best Deal?</p> <p>7 M5 Topic D: Applications of Percent</p> <p>7 M5 Lesson 20: Making Money, Day 1</p> <p>7 M5 Lesson 21: Making Money, Day 2</p> <p>7 M5 Lesson 22: Making Mixtures</p> <p>7 M5 Lesson 23: Percents of Percents</p> <p>7 M5 Lesson 24: Counting Problems</p>
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Expressions, Equations, and Inequalities

7.EE1 Expressions, Equations, and Inequalities

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<p>7.EE1.1</p> <p>Apply mathematical properties (e.g., commutative, associative, distributive) to simplify and to factor linear algebraic expressions with rational coefficients.</p>	<p>7 M3 Topic A: Equivalent Expressions</p>
<p>7.EE1.2</p> <p>Recognize that algebraic expressions may have a variety of equivalent forms and determine an appropriate form for a given real-world situation.</p>	<p>7 M3 Lesson 2: The Distributive Property and the Tabular Model</p> <p>7 M3 Lesson 4: Adding and Subtracting Expressions</p> <p>7 M3 Lesson 5: Factoring Expressions</p> <p>7 M3 Lesson 6: Comparing Expressions</p> <p>7 M3 Lesson 9: Solving Equations to Determine Unknown Angle Measures</p> <p>7 M5 Lesson 10: Percent Increase</p> <p>7 M5 Lesson 11: Percent Decrease</p> <p>7 M5 Lesson 12: More Discounts</p> <p>7 M5 Lesson 14: Scale Factor—Percent Increase and Decrease</p> <p>7 M5 Lesson 15: Tips and Taxes</p> <p>7 M5 Lesson 16: Mark-Ups and Discounts</p> <p>7 M5 Lesson 23: Percents of Percents</p>

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<p>7.EE1.3</p> <p>Extend previous understanding of Order of Operations to solve multi-step real-world and mathematical problems involving rational numbers. Include fraction bars as a grouping symbol.</p>	<p>7 M2 Lesson 25: Writing and Evaluating Expressions with Rational Numbers, Part 1</p> <p>7 M2 Lesson 26: Writing and Evaluating Expressions with Rational Numbers, Part 2</p> <p>7 M3 Lesson 9: Solving Equations to Determine Unknown Angle Measures</p> <p>7 M3 Lesson 10: Problem Solving with Unknown Angle Measures</p> <p>7 M3 Lesson 11: Dominoes and Dominoes</p> <p>7 M3 Lesson 16: Using Equations to Solve Rate Problems</p> <p>7 M3 Lesson 17: Using Equations to Solve Problems</p>
<p>7.EE1.4</p> <p>Apply the concepts of linear equations and inequalities in one variable to real-world and mathematical situations.</p>	<p>7 M3 Lesson 11: Dominoes and Dominoes</p> <p>7 M3 Lesson 12: Solving Problems Algebraically and Arithmetically</p> <p>7 M3 Lesson 13: Solving Equations—Puzzles</p> <p>7 M3 Lesson 16: Using Equations to Solve Rate Problems</p> <p>7 M3 Lesson 17: Using Equations to Solve Problems</p> <p>7 M3 Lesson 18: Understanding Inequalities and Their Solutions</p> <p>7 M3 Lesson 19: Using Equations to Solve Inequalities</p> <p>7 M3 Lesson 21: Solving Two-Step Inequalities</p> <p>7 M3 Lesson 22: Solving Problems Involving Inequalities</p> <p>7 M3 Lesson 23: Inequalities vs. Equations</p>
<p>7.EE1.4.a</p> <p>Write and fluently solve linear equations of the form $ax + b = c$ and $a(x + b) = c$ where a, b, and c are rational numbers.</p>	<p>7 M3 Lesson 7: Angle Relationships and Unknown Angle Measures</p> <p>7 M3 Lesson 8: Strategies to Determine Unknown Angle Measures</p> <p>7 M3 Lesson 12: Solving Problems Algebraically and Arithmetically</p> <p>7 M3 Lesson 13: Solving Equations—Puzzles</p>

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<p>7.EE.4.a <i>continued</i></p>	<p>7 M3 Lesson 14: Solving Equations—Scavenger Hunt 7 M3 Lesson 15: Solving Equations Fluently 7 M3 Lesson 16: Using Equations to Solve Rate Problems</p>
<p>7.EE.4.b Write and solve multi-step linear equations that include the use of the distributive property and combining like terms. Exclude equations that contain variables on both sides.</p>	<p>7 M3 Lesson 7: Angle Relationships and Unknown Angle Measures 7 M3 Lesson 8: Strategies to Determine Unknown Angle Measures 7 M3 Lesson 12: Solving Problems Algebraically and Arithmetically 7 M3 Lesson 13: Solving Equations—Puzzles 7 M3 Lesson 14: Solving Equations—Scavenger Hunt 7 M3 Lesson 15: Solving Equations Fluently 7 M3 Lesson 16: Using Equations to Solve Rate Problems</p>
<p>7.EE.4.c Write and solve two-step linear inequalities. Graph the solution set on a number line and interpret its meaning.</p>	<p>7 M3 Topic D: Inequalities</p>
<p>7.EE.4.d Identify and justify the steps for solving multi-step linear equations and two-step linear inequalities.</p>	<p>7 M3 Lesson 7: Angle Relationships and Unknown Angle Measures 7 M3 Lesson 8: Strategies to Determine Unknown Angle Measures 7 M3 Lesson 12: Solving Problems Algebraically and Arithmetically 7 M3 Lesson 13: Solving Equations—Puzzles 7 M3 Lesson 14: Solving Equations—Scavenger Hunt 7 M3 Lesson 15: Solving Equations Fluently 7 M3 Lesson 16: Using Equations to Solve Rate Problems 7 M3 Topic D: Inequalities</p>

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<p>7.EE1.5</p> <p>Understand and apply the laws of exponents (i.e., product rule, quotient rule, power to a power, product to a power, quotient to a power, zero power property) to simplify numerical expressions that include whole-number exponents.</p>	<p>8 M1 Topic B: Properties and Definitions of Exponents</p>
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Geometry and Measurement

7.GM Geometry and Measurement

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<p>7.GM.1</p> <p>Determine the scale factor and translate between scale models and actual measurements (e.g., lengths, area) of real-world objects and geometric figures using proportional reasoning.</p>	<p>7 M1 Lesson 15: Scale Drawings</p> <p>7 M1 Lesson 16: Using a Scale Factor</p> <p>7 M1 Lesson 17: Finding Actual Distances from a Scale Drawing</p> <p>7 M1 Lesson 18: Relating Areas of Scale Drawings</p> <p>7 M1 Lesson 19: Scale and Scale Factor</p> <p>7 M1 Lesson 20: Creating Multiple Scale Drawings</p> <p>7 M5 Lesson 1: Proportionality and Scale Factor</p> <p>7 M5 Lesson 14: Scale Factor—Percent Increase and Decrease</p>
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<p>7.GM.2</p> <p>Construct triangles and special quadrilaterals using a variety of tools (e.g., freehand, ruler and protractor, technology).</p>	<p><i>This standard is fully addressed by the lessons aligned to its subsections.</i></p>
<p>7.GM.2.a</p> <p>Construct triangles given all measurements of either angles or sides.</p>	<p>7 M4 Topic A: Constructing Geometric Figures 7 M4 Topic B: Constructing Triangles 7 M4 Lesson 9: Constructing a Circle</p>
<p>7.GM.2.b</p> <p>Decide if the measurements determine a unique triangle, more than one triangle, or no triangle.</p>	<p>7 M4 Topic A: Constructing Geometric Figures 7 M4 Topic B: Constructing Triangles 7 M4 Lesson 9: Constructing a Circle</p>
<p>7.GM.2.c</p> <p>Construct special quadrilaterals (i.e., kite, trapezoid, isosceles trapezoid, rhombus, parallelogram, rectangle) given specific parameters about angles or sides.</p>	<p>7 M4 Lesson 2: Constructing Parallelograms and Other Quadrilaterals 7 M4 Lesson 5: Constructing Quadrilaterals and Triangles</p>
<p>7.GM.3</p> <p>Describe two-dimensional cross-sections of three-dimensional figures, specifically right rectangular prisms and right rectangular pyramids.</p>	<p>7 M4 Lesson 22: Understanding Planes and Cross Sections 7 M4 Lesson 23: Cross Section Scavenger Hunt</p>
<p>7.GM.4</p> <p>Investigate the concept of circles.</p>	<p>7 M4 Topic C: Circumference and Area of Circles</p>

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<p>7.GM.4.a</p> <p>Demonstrate an understanding of the proportional relationships between diameter, radius, and circumference of a circle.</p>	<p>7 M4 Lesson 10: The Outside of a Circle</p> <p>7 M4 Lesson 11: The Inside of a Circle</p> <p>7 M4 Lesson 12: Exploring the Area and Circumference of a Circle</p> <p>7 M4 Lesson 13: Finding Areas of Circular Regions</p> <p>7 M4 Lesson 14: Composite Figures with Circular Regions</p> <p>7 M4 Lesson 15: Watering a Lawn</p>
<p>7.GM.4.b</p> <p>Understand that the constant of proportionality between the circumference and diameter is equivalent to π.</p>	<p>7 M4 Lesson 10: The Outside of a Circle</p> <p>7 M4 Lesson 12: Exploring the Area and Circumference of a Circle</p>
<p>7.GM.4.c</p> <p>Explore the relationship between circumference and area using a visual model.</p>	<p>7 M4 Lesson 10: The Outside of a Circle</p> <p>7 M4 Lesson 11: The Inside of a Circle</p> <p>7 M4 Lesson 12: Exploring the Area and Circumference of a Circle</p> <p>7 M4 Lesson 13: Finding Areas of Circular Regions</p> <p>7 M4 Lesson 14: Composite Figures with Circular Regions</p> <p>7 M4 Lesson 15: Watering a Lawn</p>
<p>7.GM.4.d</p> <p>Use the formulas for circumference and area of circles appropriately to solve real-world and mathematical problems.</p>	<p>7 M4 Lesson 10: The Outside of a Circle</p> <p>7 M4 Lesson 11: The Inside of a Circle</p> <p>7 M4 Lesson 12: Exploring the Area and Circumference of a Circle</p> <p>7 M4 Lesson 13: Finding Areas of Circular Regions</p> <p>7 M4 Lesson 14: Composite Figures with Circular Regions</p> <p>7 M4 Lesson 15: Watering a Lawn</p>

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<p>7.GM.5</p> <p>Write equations to solve problems involving the relationships between angles formed by two intersecting lines, including supplementary, complementary, vertical, and adjacent.</p>	<p>7 M3 Lesson 7: Angle Relationships and Unknown Angle Measures</p> <p>7 M3 Lesson 8: Strategies to Determine Unknown Angle Measures</p> <p>7 M3 Lesson 10: Problem Solving with Unknown Angle Measures</p>
<p>7.GM.6</p> <p>Apply the concepts of two- and three-dimensional figures to real-world and mathematical situations.</p>	<p><i>This standard is fully addressed by the lessons aligned to its subsections.</i></p>
<p>7.GM.6.a</p> <p>Understand that the concept of area is applied to two-dimensional figures such as triangles, quadrilaterals, and polygons.</p>	<p>7 M4 Lesson 14: Composite Figures with Circular Regions</p> <p>7 M4 Lesson 16: Solving Area Problems by Composition and Decomposition</p> <p>7 M4 Lesson 17: Surface Area of Right Rectangular and Right Triangular Prisms</p> <p>7 M4 Lesson 18: Surface Area of Right Prisms</p> <p>7 M4 Lesson 20: Surface Area of Right Pyramids</p> <p>7 M4 Lesson 21: Surface Area of Other Solids</p> <p>7 M4 Lesson 24: Volume of Prisms</p> <p>7 M4 Lesson 25: Volume of Composite Solids</p> <p>7 M4 Lesson 26: Designing a Fish Tank</p>

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<p>7.GM.6.b</p> <p>Understand that the concepts of volume and surface area are applied to three-dimensional figures such as cubes, right rectangular prisms, and right triangular prisms.</p>	<p>7 M4 Lesson 14: Composite Figures with Circular Regions</p> <p>7 M4 Lesson 16: Solving Area Problems by Composition and Decomposition</p> <p>7 M4 Lesson 17: Surface Area of Right Rectangular and Right Triangular Prisms</p> <p>7 M4 Lesson 18: Surface Area of Right Prisms</p> <p>7 M4 Lesson 20: Surface Area of Right Pyramids</p> <p>7 M4 Lesson 21: Surface Area of Other Solids</p> <p>7 M4 Lesson 24: Volume of Prisms</p> <p>7 M4 Lesson 25: Volume of Composite Solids</p> <p>7 M4 Lesson 26: Designing a Fish Tank</p>
<p>7.GM.6.c</p> <p>Decompose cubes, right rectangular prisms, and right triangular prisms into rectangles and triangles to derive the formulas for volume and surface area.</p>	<p>7 M4 Lesson 14: Composite Figures with Circular Regions</p> <p>7 M4 Lesson 16: Solving Area Problems by Composition and Decomposition</p> <p>7 M4 Lesson 17: Surface Area of Right Rectangular and Right Triangular Prisms</p> <p>7 M4 Lesson 18: Surface Area of Right Prisms</p> <p>7 M4 Lesson 20: Surface Area of Right Pyramids</p> <p>7 M4 Lesson 21: Surface Area of Other Solids</p> <p>7 M4 Lesson 24: Volume of Prisms</p> <p>7 M4 Lesson 25: Volume of Composite Solids</p> <p>7 M4 Lesson 26: Designing a Fish Tank</p>

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<p>7.GM.6.d</p> <p>Use the formulas for area, volume, and surface area appropriately.</p>	<p>7 M4 Lesson 14: Composite Figures with Circular Regions</p> <p>7 M4 Lesson 16: Solving Area Problems by Composition and Decomposition</p> <p>7 M4 Lesson 17: Surface Area of Right Rectangular and Right Triangular Prisms</p> <p>7 M4 Lesson 18: Surface Area of Right Prisms</p> <p>7 M4 Lesson 20: Surface Area of Right Pyramids</p> <p>7 M4 Lesson 21: Surface Area of Other Solids</p> <p>7 M4 Lesson 24: Volume of Prisms</p> <p>7 M4 Lesson 25: Volume of Composite Solids</p> <p>7 M4 Lesson 26: Designing a Fish Tank</p>
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Data Analysis, Statistics, and Probability

7.DSP Data Analysis, Statistics, and Probability

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<p>7.DSP.1</p> <p>Investigate concepts of random sampling.</p>	<p><i>This standard is fully addressed by the lessons aligned to its subsections.</i></p>
<p>7.DSP.1.a</p> <p>Understand that a sample is a subset of a population and both possess the same characteristics.</p>	<p>7 M6 Lesson 11: Populations and Samples</p> <p>7 M6 Lesson 12: Selecting a Sample</p> <p>7 M6 Lesson 13: Variability Between Samples</p> <p>7 M6 Lesson 14: Sampling Variability When Estimating a Population Mean</p>

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<p>7.DSP.1.b</p> <p>Differentiate between random and non-random sampling.</p>	<p>7 M6 Lesson 11: Populations and Samples</p> <p>7 M6 Lesson 12: Selecting a Sample</p> <p>7 M6 Lesson 13: Variability Between Samples</p> <p>7 M6 Lesson 14: Sampling Variability When Estimating a Population Mean</p>
<p>7.DSP.1.c</p> <p>Understand that generalizations from a sample are valid only if the sample is representative of the population.</p>	<p>7 M6 Lesson 11: Populations and Samples</p> <p>7 M6 Lesson 12: Selecting a Sample</p> <p>7 M6 Lesson 13: Variability Between Samples</p> <p>7 M6 Lesson 14: Sampling Variability When Estimating a Population Mean</p>
<p>7.DSP.1.d</p> <p>Understand that random sampling is used to gather a representative sample and supports valid inferences about the population.</p>	<p>7 M6 Lesson 11: Populations and Samples</p> <p>7 M6 Lesson 12: Selecting a Sample</p> <p>7 M6 Lesson 13: Variability Between Samples</p> <p>7 M6 Lesson 14: Sampling Variability When Estimating a Population Mean</p>
<p>7.DSP.2</p> <p>Draw inferences about a population by collecting multiple random samples of the same size to investigate variability in estimates of the characteristic of interest.</p>	<p>7 M6 Lesson 13: Variability Between Samples</p> <p>7 M6 Lesson 14: Sampling Variability When Estimating a Population Mean</p> <p>7 M6 Lesson 15: Sampling Variability and the Effect of Sample Size</p> <p>7 M6 Lesson 16: Sampling Variability When Estimating a Population Proportion</p>
<p>7.DSP.3</p> <p>Visually compare the centers, spreads, and overlap of two displays of data (i.e., dot plots, histograms, box plots) that are graphed on the same scale and draw inferences about this data.</p>	<p>7 M6 Topic D: Comparing Populations</p>

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<p>7.DSP.4</p> <p>Compare the numerical measures of center (mean, median, mode) and variability (range, interquartile range, mean absolute deviation) from two random samples to draw inferences about the populations.</p>	<p>7 M6 Topic D: Comparing Populations</p>
<p>7.DSP.5</p> <p>Investigate the concept of probability of chance events.</p>	<p><i>This standard is fully addressed by the lessons aligned to its subsections.</i></p>
<p>7.DSP.5.a</p> <p>Determine probabilities of simple events.</p>	<p>7 M6 Lesson 2: Empirical Probability 7 M6 Lesson 3: Outcomes of Chance Experiments 7 M6 Lesson 4: Theoretical Probability 7 M6 Lesson 7: The Law of Large Numbers</p>
<p>7.DSP.5.b</p> <p>Understand that probability measures likelihood of a chance event occurring.</p>	<p>7 M6 Lesson 1: What is Probability?</p>
<p>7.DSP.5.c</p> <p>Understand that the probability of a chance event is a number between 0 and 1.</p>	<p>7 M6 Lesson 1: What is Probability?</p>
<p>7.DSP.5.d</p> <p>Understand that a probability closer to 1 indicates a likely chance event.</p>	<p>7 M6 Lesson 1: What is Probability?</p>

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<p>7.DSP.5.e</p> <p>Understand that a probability close to $\frac{1}{2}$ indicates that a chance event is neither likely nor unlikely.</p>	<p>7 M6 Lesson 1: What is Probability?</p>
<p>7.DSP.5.f</p> <p>Understand that a probability closer to 0 indicates an unlikely chance event.</p>	<p>7 M6 Lesson 1: What is Probability?</p>
<p>7.DSP.6</p> <p>Investigate the relationship between theoretical and experimental probabilities for simple events.</p>	<p><i>This standard is fully addressed by the lessons aligned to its subsections.</i></p>
<p>7.DSP.6.a</p> <p>Determine approximate outcomes using theoretical probability.</p>	<p>7 M6 Lesson 2: Empirical Probability</p> <p>7 M6 Lesson 3: Outcomes of Chance Experiments</p> <p>7 M6 Lesson 4: Theoretical Probability</p> <p>7 M6 Lesson 6: Outcomes that are Not Equally Likely</p> <p>7 M6 Lesson 7: The Law of Large Numbers</p> <p>7 M6 Lesson 8: Picking Blue</p>
<p>7.DSP.6.b</p> <p>Perform experiments that model theoretical probability.</p>	<p>7 M6 Lesson 4: Theoretical Probability</p> <p>7 M6 Lesson 5: Multistage Experiments</p> <p>7 M6 Lesson 7: The Law of Large Numbers</p> <p>7 M6 Lesson 8: Picking Blue</p> <p>7 M6 Lesson 9: Probability Simulations</p> <p>7 M6 Lesson 10: Simulations with Random Number Tables</p>

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<p>7.DSP.6.c</p> <p>Compare theoretical and experimental probabilities.</p>	<p>7 M6 Lesson 2: Empirical Probability</p> <p>7 M6 Lesson 3: Outcomes of Chance Experiments</p> <p>7 M6 Lesson 6: Outcomes That Are Not Equally Likely</p> <p>7 M6 Lesson 8: Picking Blue</p> <p>7 M6 Lesson 9: Probability Simulations</p> <p>7 M6 Lesson 10: Simulations with Random Number Tables</p>
<p>7.DSP.7</p> <p>Apply the concepts of theoretical and experimental probabilities for simple events.</p>	<p><i>This standard is fully addressed by the lessons aligned to its subsections.</i></p>
<p>7.DSP.7.a</p> <p>Differentiate between uniform and non-uniform probability models (distributions).</p>	<p>7 M6 Lesson 4: Theoretical Probability</p> <p>7 M6 Lesson 6: Outcomes that are Not Equally Likely</p> <p>7 M6 Lesson 7: The Law of Large Numbers</p> <p>7 M6 Lesson 8: Picking Blue</p>
<p>7.DSP.7.b</p> <p>Develop both uniform and non-uniform probability models.</p>	<p>7 M6 Lesson 4: Theoretical Probability</p> <p>7 M6 Lesson 7: The Law of Large Numbers</p> <p>7 M6 Lesson 8: Picking Blue</p>
<p>7.DSP.7.c</p> <p>Perform experiments to test the validity of probability models.</p>	<p>7 M6 Lesson 4: Theoretical Probability</p> <p>7 M6 Lesson 7: The Law of Large Numbers</p> <p>7 M6 Lesson 8: Picking Blue</p>

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<p>7.DSP.8</p> <p>Extend the concepts of simple events to investigate compound events.</p>	<p><i>This standard is fully addressed by the lessons aligned to its subsections.</i></p>
<p>7.DSP.8.a</p> <p>Understand that the probability of a compound event is between 0 and 1.</p>	<p>7 M6 Lesson 5: Multistage Experiments</p>
<p>7.DSP.8.b</p> <p>Identify the outcomes in a sample space using organized lists, tables, and tree diagrams.</p>	<p>7 M6 Lesson 5: Multistage Experiments</p>
<p>7.DSP.8.c</p> <p>Determine probabilities of compound events using organized lists, tables, and tree diagrams.</p>	<p>7 M6 Lesson 5: Multistage Experiments</p>
<p>7.DSP.8.d</p> <p>Design and use simulations to collect data and determine probabilities.</p>	<p>7 M6 Lesson 9: Probability Simulations 7 M6 Lesson 10: Simulations with Random Number Tables</p>
<p>7.DSP.8.e</p> <p>Compare theoretical and experimental probabilities for compound events.</p>	<p>7 M6 Lesson 7: The Law of Large Numbers 7 M6 Lesson 8: Picking Blue</p>