

Pacing Guide

Build Understanding

Connect Concepts and Skills

Apply and Practice

Lesson	South Carolina College- and Career-Ready Standards for Mathematics, Grade 6		Pacing
Unit 1 NUMBER SYSTEMS AND OPERATIONS			
Module 1: Integer Concepts			
Lesson 1.1 Identify and Interpret Integers	6.NS.5	Understand that the positive and negative representations of a number are opposites in direction and value. Use integers to represent quantities in real-world situations and explain the meaning of zero in each situation.	2 days
	6.NS.6.a	Understand the concept of opposite numbers, including zero, and their relative locations on the number line.	
Lesson 1.2 Compare and Order Integers on a Number Line	6.NS.7.c	Use concepts of equality and inequality to write and to explain real-world and mathematical situations.	2 days
Lesson 1.3 Find and Apply Absolute Value	6.NS.7.d	Understand that absolute value represents a number’s distance from zero on the number line and use the absolute value of a rational number to represent real-world situations.	1 day
	6.NS.7.e	Recognize the difference between comparing absolute values and ordering rational numbers. For negative rational numbers, understand that as the absolute value increases, the value of the negative number decreases.	
Module 2: Rational Number Concepts			
Lesson 2.1 Interpret Rational Numbers	6.NS.6	Extend the understanding of the number line to include all rational numbers and apply this concept to the coordinate plane.	1 day
	6.NS.6.d	Plot rational numbers on number lines and ordered pairs on coordinate planes.	
	6.NS.7.d	Understand that absolute value represents a number’s distance from zero on the number line and use the absolute value of a rational number to represent real-world situations.	
	6.NS.7.e	Recognize the difference between comparing absolute values and ordering rational numbers. For negative rational numbers, understand that as the absolute value increases, the value of the negative number decreases.	
Lesson 2.2 Compare Rational Numbers on a Number Line	6.NS.6.d	Plot rational numbers on number lines and ordered pairs on coordinate planes.	1 day
	6.NS.7.b	Interpret statements using less than (<), greater than (>), and equal to (=) as relative locations on the number line.	
Lesson 2.3 Find and Apply LCM and GCF	6.NS.4.a	Compute the greatest common factor (GCF) of two numbers both less than or equal to 100.	2 days
	6.NS.4.b	Compute the least common multiple (LCM) of two numbers both less than or equal to 12.	
	6.NS.4.c	Express sums of two whole numbers, each less than or equal to 100, using the distributive property to factor out a common factor of the original addends.	
	6.NS.7.c	Use concepts of equality and inequality to write and to explain real-world and mathematical situations.	

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In addition to the core instructional pacing below, HMH recommends the following:




- 3 days per year for the HMH Into Math Growth Measure powered by Math Inventory
- 3 days per module for the Module Opener, Are You Ready?, Module Review, and Module Test
- 2 days per unit for the Performance Task

Using these recommendations, the total pacing for Grade 6 is 162 days.

"One day" is equal to one instructional period in a traditional schedule and needs to be adjusted to account for longer class periods in a block schedule.

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Lesson 2.4 Order Rational Numbers	6.NS.4.a	Compute the greatest common factor (GCF) of two numbers both less than or equal to 100.	1 day
	6.NS.4.b	Compute the least common multiple (LCM) of two numbers both less than or equal to 12.	
	6.NS.7.c	Use concepts of equality and inequality to write and to explain real-world and mathematical situations.	
	6.NS.9	Investigate and translate among multiple representations of rational numbers (fractions, decimal numbers, percentages). Fractions should be limited to those with denominators of 2, 3, 4, 5, 8, 10, and 100.	
Module 3: Fraction Division			
Lesson 3.1 Understand Fraction Division	6.NS.1	Compute and represent quotients of positive fractions using a variety of procedures (e.g., visual models, equations, and real-world situations).	2 days
Lesson 3.2 Explore Division of Fractions with Unlike Denominators	6.NS.1	Compute and represent quotients of positive fractions using a variety of procedures (e.g., visual models, equations, and real-world situations).	2 days
Lesson 3.3 Explore Division of Mixed Numbers	6.NS.1	Compute and represent quotients of positive fractions using a variety of procedures (e.g., visual models, equations, and real-world situations).	2 days
Lesson 3.4 Practice and Apply Division of Fractions and Mixed Numbers	6.NS.1	Compute and represent quotients of positive fractions using a variety of procedures (e.g., visual models, equations, and real-world situations).	1 day
Lesson 3.5 Practice Fraction Operations	6.NS.1	Compute and represent quotients of positive fractions using a variety of procedures (e.g., visual models, equations, and real-world situations).	2 days
	6.NS.4.a	Compute the greatest common factor (GCF) of two numbers both less than or equal to 100.	
	6.NS.4.b	Compute the least common multiple (LCM) of two numbers both less than or equal to 12.	
Module 4: Fluency with Multi-Digit Decimal Operations			
Lesson 4.1 Add and Subtract Multi-Digit Decimals	6.NS.3	Fluently add, subtract, multiply and divide multi-digit decimal numbers using a standard algorithmic approach.	1 day
Lesson 4.2 Multiply Multi-Digit Decimals	6.NS.3	Fluently add, subtract, multiply and divide multi-digit decimal numbers using a standard algorithmic approach.	1 day
Lesson 4.3 Divide Multi-Digit Whole Numbers	6.NS.2	Fluently divide multi-digit whole numbers using a standard algorithmic approach.	1 day
Lesson 4.4 Divide Multi-Digit Decimals	6.NS.3	Fluently add, subtract, multiply and divide multi-digit decimal numbers using a standard algorithmic approach.	1 day
Lesson 4.5 Apply Operations with Multi-Digit Decimals	6.NS.3	Fluently add, subtract, multiply and divide multi-digit decimal numbers using a standard algorithmic approach.	1 day




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Unit 2 RATIO AND RATE REASONING			
Module 5: Ratios and Rates			
Lesson 5.1 Understand the Concept and Language of Ratios	6.RP.1	Interpret the concept of a ratio as the relationship between two quantities, including part to part and part to whole.	1 day
	6.RP.2.a	Translate between multiple representations of ratios (i.e., $\frac{a}{b}$, $a:b$, a to b , visual models).	
Lesson 5.2 Represent Ratios and Rates with Tables and Graphs	6.RP.2.b	Recognize that a rate is a type of ratio involving two different units.	2 days
	6.RP.2.c	Convert from rates to unit rates.	
	6.RP.3.a	Create a table consisting of equivalent ratios and plot the results on the coordinate plane.	
	6.RP.3.c	Use two tables to compare related ratios.	
Lesson 5.3 Compare Ratios and Rates	6.RP.3.b	Use multiple representations, including tape diagrams, tables, double number lines, and equations, to find missing values of equivalent ratios.	1 day
	6.RP.3.c	Use two tables to compare related ratios.	
Lesson 5.4 Find and Apply Unit Rates	6.RP.2.b	Recognize that a rate is a type of ratio involving two different units.	2 days
	6.RP.2.c	Convert from rates to unit rates.	
	6.RP.3	Apply the concepts of ratios and rates to solve real-world and mathematical problems.	
	6.RP.3.d	Apply concepts of unit rate to solve problems, including unit pricing and constant speed.	
Lesson 5.5 Solve Ratio and Rate Problems Using Proportional Reasoning	6.RP.3	Apply the concepts of ratios and rates to solve real-world and mathematical problems.	2 days
	6.RP.3.b	Use multiple representations, including tape diagrams, tables, double number lines, and equations, to find missing values of equivalent ratios.	
	6.RP.3.d	Apply concepts of unit rate to solve problems, including unit pricing and constant speed.	
Module 6: Apply Ratios and Rates to Measurement			
Lesson 6.1 Use Ratio Reasoning With Circle Graphs	6.RP.3	Apply the concepts of ratios and rates to solve real-world and mathematical problems.	1 day
Lesson 6.2 Use Rate Reasoning to Convert Within Measurement Systems	6.RP.3.f	Solve one-step problems involving ratios and unit rates (e.g., dimensional analysis).	2 days
Lesson 6.3 Use Rate Reasoning to Convert Between Measurement Systems	6.RP.3.f	Solve one-step problems involving ratios and unit rates (e.g., dimensional analysis).	2 days
Module 7: Understand and Apply Percent			
Lesson 7.1 Understand, Express, and Compare Percent Ratios	6.NS.9	Investigate and translate among multiple representations of rational numbers (fractions, decimal numbers, percentages). Fractions should be limited to those with denominators of 2, 3, 4, 5, 8, 10, and 100.	2 days
	6.RP.3.e	Understand that a percentage is a rate per 100 and use this to solve problems involving wholes, parts, and percentages.	

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Lesson 7.2 Use Strategies to Find a Percent of a Quantity	6.NS.9	Investigate and translate among multiple representations of rational numbers (fractions, decimal numbers, percentages). Fractions should be limited to those with denominators of 2, 3, 4, 5, 8, 10, and 100.	2 days
	6.RP.3.e	Understand that a percentage is a rate per 100 and use this to solve problems involving wholes, parts, and percentages.	
Lesson 7.3 Solve a Variety of Percent Problems	6.NS.9	Investigate and translate among multiple representations of rational numbers (fractions, decimal numbers, percentages). Fractions should be limited to those with denominators of 2, 3, 4, 5, 8, 10, and 100.	2 days
	6.RP.3.e	Understand that a percentage is a rate per 100 and use this to solve problems involving wholes, parts, and percentages.	
Unit 3 EXPRESSIONS, EQUATIONS, AND INEQUALITIES			
Module 8: Numerical and Algebraic Expressions			
Lesson 8.1 Understand and Apply Exponents	6.EE.1	Write and evaluate numerical expressions involving whole-number exponents and positive rational number bases using the Order of Operations.	1 day
Lesson 8.2 Write and Evaluate Numerical Expressions for Situations	6.EE.1	Write and evaluate numerical expressions involving whole-number exponents and positive rational number bases using the Order of Operations.	2 days
	6.EE.2.b	Investigate and identify parts of algebraic expressions using mathematical terminology, including term, coefficient, constant, and factor.	
Lesson 8.3 Write Algebraic Expressions to Model Situations	6.EE.2	Extend the concepts of numerical expressions to algebraic expressions involving positive rational numbers.	1 day
	6.EE.2.a	Translate between algebraic expressions and verbal phrases that include variables.	
	6.EE.2.b	Investigate and identify parts of algebraic expressions using mathematical terminology, including term, coefficient, constant, and factor.	
	6.EE.6	Write expressions using variables to represent quantities in real-world and mathematical situations. Understand the meaning of the variable in the context of the situation.	
Lesson 8.4 Interpret and Evaluate Algebraic Expressions	6.EE.2	Extend the concepts of numerical expressions to algebraic expressions involving positive rational numbers.	2 days
	6.EE.2.c	Evaluate real-world and algebraic expressions for specific values using the Order of Operations. Grouping symbols should be limited to parentheses, braces, and brackets. Exponents should be limited to whole-numbers.	
Lesson 8.5 Identify and Generate Equivalent Algebraic Expressions	6.EE.2	Extend the concepts of numerical expressions to algebraic expressions involving positive rational numbers..	2 days
	6.EE.3	Apply mathematical properties (e.g., commutative, associative, distributive) to generate equivalent expressions.	
	6.EE.4	Apply mathematical properties (e.g., commutative, associative, distributive) to justify that two expressions are equivalent.	

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Module 9: Solve Problems Using Equations and Inequalities			
Lesson 9.1 Write Equations to Represent Situations	6.NS.7.a	Interpret statements using equal to ($=$) and not equal to (\neq).	1 day
	6.EE1.5	Understand that if any solutions exist, the solution set for an equation or inequality consists of values that make the equation or inequality true.	
	6.EE1.7	Write and solve one-step linear equations in one variable involving nonnegative rational numbers for real-world and mathematical situations.	
Lesson 9.2 Use Addition and Subtraction Equations to Solve Problems	6.NS.7.a	Interpret statements using equal to ($=$) and not equal to (\neq).	2 days
	6.EE1.7	Write and solve one-step linear equations in one variable involving nonnegative rational numbers for real-world and mathematical situations.	
Lesson 9.3 Use Multiplication and Division Equations to Solve Problems	6.NS.7.a	Interpret statements using equal to ($=$) and not equal to (\neq).	2 days
	6.EE1.7	Write and solve one-step linear equations in one variable involving nonnegative rational numbers for real-world and mathematical situations.	
Lesson 9.4 Use One-Step Equations to Solve a Variety of Problems	6.NS.7.a	Interpret statements using equal to ($=$) and not equal to (\neq).	1 day
	6.EE1.7	Write and solve one-step linear equations in one variable involving nonnegative rational numbers for real-world and mathematical situations.	
Lesson 9.5 Write and Graph Inequalities	6.EE1.5	Understand that if any solutions exist, the solution set for an equation or inequality consists of values that make the equation or inequality true.	2 days
	6.EE1.8.a	Write an inequality of the form $x > c$ or $x < c$ and graph the solution set on a number line.	
	6.EE1.8.b	Recognize that inequalities have infinitely many solutions.	
Module 10: Real-World Relationships Between Variables			
Lesson 10.1 Represent Equations in Tables and Graphs	6.EE1.9.a	Write an equation that models a relationship between independent and dependent variables.	2 days
	6.EE1.9.b	Analyze the relationship between independent and dependent variables using graphs and tables.	
	6.EE1.9.c	Translate among graphs, tables, and equations.	
Lesson 10.2 Write Equations from Verbal Descriptions	6.EE1.9.a	Write an equation that models a relationship between independent and dependent variables.	1 day
	6.EE1.9.b	Analyze the relationship between independent and dependent variables using graphs and tables.	
Lesson 10.3 Write Equations from Tables and Graphs	6.EE1.9.a	Write an equation that models a relationship between independent and dependent variables.	2 days
	6.EE1.9.b	Analyze the relationship between independent and dependent variables using graphs and tables.	
	6.EE1.9.c	Translate among graphs, tables, and equations.	

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Unit 4 RELATIONSHIPS IN GEOMETRY				
Module 11: Polygons on the Coordinate Plane				
Lesson 11.1 Graph Rational Numbers on the Coordinate Plane	6.NS.6.b	Understand that the signs of the coordinates in ordered pairs indicate their location on an axis or in a quadrant on the coordinate plane.	2 days	
	6.NS.6.d	Plot rational numbers on number lines and ordered pairs on coordinate planes.		
Lesson 11.2 Graph Polygons on the Coordinate Plane	6.NS.6.b	Understand that the signs of the coordinates in ordered pairs indicate their location on an axis or in a quadrant on the coordinate plane.	2 days	
	6.NS.6.d	Plot rational numbers on number lines and ordered pairs on coordinate planes.		
	6.GM.3.a	Given coordinates of the vertices, draw a polygon in the coordinate plane.		
	6.GM.3.b	Find the length of an edge if the vertices have the same x-coordinates or same y-coordinates.		
Lesson 11.3 Find Distance on the Coordinate Plane	6.NS.6.b	Understand that the signs of the coordinates in ordered pairs indicate their location on an axis or in a quadrant on the coordinate plane.	2 days	
	6.NS.6.c	Recognize when ordered pairs are reflections of each other on the coordinate plane across one axis, both axes, or the origin.		
	6.NS.6.d	Plot rational numbers on number lines and ordered pairs on coordinate planes.		
	6.NS.8.a	Plot points in all four quadrants to represent the problem.		
	6.NS.8.b	Find the distance between two points when ordered pairs have the same x-coordinates or same y-coordinates.		
	6.NS.8.c	Relate finding the distance between two points in a coordinate plane to absolute value using a number line.		
Lesson 11.4 Find Perimeter and Area on the Coordinate Plane	6.GM.3.b	Find the length of an edge if the vertices have the same x-coordinates or same y-coordinates.	2 days	
	6.NS.6.b	Understand that the signs of the coordinates in ordered pairs indicate their location on an axis or in a quadrant on the coordinate plane.		
	6.NS.8.a	Plot points in all four quadrants to represent the problem.		
	6.NS.8.b	Find the distance between two points when ordered pairs have the same x-coordinates or same y-coordinates.		
	6.NS.8.c	Relate finding the distance between two points in a coordinate plane to absolute value using a number line.		
	6.GM.3.a	Given coordinates of the vertices, draw a polygon in the coordinate plane.		
	6.GM.3.b	Find the length of an edge if the vertices have the same x-coordinates or same y-coordinates.		

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Module 12: Area of Triangles and Special Quadrilaterals			
Lesson 12.1 Develop and Use the Formula for Area of Parallelograms	6.EE1.2.c	Evaluate real-world and algebraic expressions for specific values using the Order of Operations. Grouping symbols should be limited to parentheses, braces, and brackets. Exponents should be limited to whole-numbers.	2 days
	6.GM.1	Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems.	
Lesson 12.2 Develop and Use the Formula for Area of Triangles	6.EE1.2.c	Evaluate real-world and algebraic expressions for specific values using the Order of Operations. Grouping symbols should be limited to parentheses, braces, and brackets. Exponents should be limited to whole-numbers.	2 days
	6.GM.1	Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems.	
Lesson 12.3 Develop and Use the Formula for Area of Trapezoids	6.EE1.2.c	Evaluate real-world and algebraic expressions for specific values using the Order of Operations. Grouping symbols should be limited to parentheses, braces, and brackets. Exponents should be limited to whole-numbers.	2 days
	6.GM.1	Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems.	
Lesson 12.4 Find Area of Composite Figures	6.GM.1	Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems.	2 days
Module 13: Surface Area and Volume			
Lesson 13.1 Explore Nets and Surface Area	6.GM.4	Unfold three-dimensional figures into two-dimensional rectangles and triangles (nets) to find the surface area and to solve real-world and mathematical problems.	2 days
Lesson 13.2 Find Volume of Rectangular Prisms	6.EE1.2.c	Evaluate real-world and algebraic expressions for specific values using the Order of Operations. Grouping symbols should be limited to parentheses, braces, and brackets. Exponents should be limited to whole-numbers.	1 day
	6.GM.2	Use visual models (e.g., model by packing) to discover that the formulas for the volume of a right rectangular prism ($V = lwh$, $V = Bh$) are the same for whole or fractional edge lengths. Apply these formulas to solve real-world and mathematical problems.	
Lesson 13.3 Solve Volume Problems	6.EE1.2.c	Evaluate real-world and algebraic expressions for specific values using the Order of Operations. Grouping symbols should be limited to parentheses, braces, and brackets. Exponents should be limited to whole-numbers.	1 day
	6.GM.2	Use visual models (e.g., model by packing) to discover that the formulas for the volume of a right rectangular prism ($V = lwh$, $V = Bh$) are the same for whole or fractional edge lengths. Apply these formulas to solve real-world and mathematical problems.	

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Unit 5 DATA COLLECTION AND ANALYSIS			
Module 14: Data Collection and Displays			
Lesson 14.1 Explore Statistical Data Collection	6.DS.1	Differentiate between statistical and non-statistical questions.	1 day
	6.DS.5.a	State the sample size.	
	6.DS.5.b	Describe the qualitative aspects of the data (e.g., how it was measured, units of measurement).	
Lesson 14.2 Display Data in Dot Plots	6.DS.4	Select and create an appropriate display for numerical data, including dot plots, histograms, and box plots.	2 days
Lesson 14.3 Make Histograms and Frequency Tables	6.DS.4	Select and create an appropriate display for numerical data, including dot plots, histograms, and box plots.	2 days
Module 15: Measures of Center			
Lesson 15.1 Explore Mean as Fair Share	6.DS.3	Recognize that a measure of center for a numerical data set summarizes all of its values with a single number, while a measure of variation describes how its values vary with a single number.	1 day
Lesson 15.2 Find Measures of Center	6.DS.3	Recognize that a measure of center for a numerical data set summarizes all of its values with a single number, while a measure of variation describes how its values vary with a single number.	1 day
	6.DS.5.a	State the sample size.	
Lesson 15.3 Choose a Measure of Center	6.DS.5.f	Justify the choices for measure of center and measure of variability based on the shape of the distribution.	1 day
	6.DS.5.g	Describe the impact that inserting or deleting a data point has on the measures of center (median, mean) for a data set.	
Module 16: Variability and Data Distribution			
Lesson 16.1 Explore Patterns of Data	6.DS.5.c	Give measures of center (median, mean).	1 day
	6.DS.5.e	Describe the overall pattern (shape) of the distribution.	
Lesson 16.2 Display Data in Box Plots	6.DS.4	Select and create an appropriate display for numerical data, including dot plots, histograms, and box plots.	2 days
	6.DS.5.d	Find measures of variability (interquartile range, mean, absolute deviation) using a number line.	
Lesson 16.3 Find Mean Absolute Deviation	6.DS.5.c	Give measures of center (median, mean).	2 days
	6.DS.5.d	Find measures of variability (interquartile range, mean absolute deviation) using a number line.	
	6.DS.5.e	Describe the overall pattern (shape) of the distribution.	

Pacing Guide

● Build Understanding

● Connect Concepts and Skills

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Module 16: Variability and Data Distribution			
Lesson 16.4 Explore Measures of Variability	6.DS.3	Recognize that a measure of center for a numerical data set summarizes all of its values with a single number, while a measure of variation describes how its values vary with a single number.	2 days
	6.DS.5.c	Give measures of center (median, mean).	
	6.DS.5.d	Find measures of variability (interquartile range, mean absolute deviation) using a number line.	
	6.DS.5.e	Describe the overall pattern (shape) of the distribution.	
	6.DS.5.f	Justify the choices for measure of center and measure of variability based on the shape of the distribution.	
Lesson 16.5 Describe Distributions	6.DS.2	Use center (mean, median, mode), spread (range, interquartile range, mean absolute value), and shape (symmetrical, skewed left, skewed right) to describe the distribution of a set of data collected to answer a statistical question.	2 days
	6.DS.5.c	Give measures of center (median, mean).	
	6.DS.5.d	Find measures of variability (interquartile range, mean absolute deviation) using a number line.	
	6.DS.5.e	Describe the overall pattern (shape) of the distribution.	
	6.DS.5.f	Justify the choices for measure of center and measure of variability based on the shape of the distribution.	
	6.DS.5.g	Describe the impact that inserting or deleting a data point has on the measures of center (median, mean) for a data set.	