

Math 7

Strand	Common Curriculum Goal	Standard	Lesson Name
7.1. Core Content: Rational numbers and linear equations (Numbers, Operations, Algebra)		7.1.A Compare and order rational numbers using the number line, lists, and the symbols $<$, $>$, or $=$.	Lesson 4 Comparing and Ordering Fractions
		7.1.B Represent addition, subtraction, multiplication, and division of positive and negative integers visually and numerically.	Lesson 1 Integers
		7.1.C Fluently and accurately add, subtract, multiply, and divide rational numbers.	Lesson 1 Integers Lesson 5 Addition and Subtraction of Fractions Lesson 6 Multiplication and Division Fractions Lesson 11 Addition and Subtraction of Decimals Lesson 12 Multiplication and Division of Decimals
		7.1.D Define and determine the absolute value of a number.	Lesson 1 Integers
		7.1.E Solve two-step linear equations.	Lesson 35: Functions, Graphs, and Linear Equations
		7.1.F Write an equation that corresponds to a given problem situation, and describe a problem situation that corresponds to a given equation.	Lesson 32: Number Concepts
		7.1.G Solve single- and multi-step word problems involving rational numbers and verify the solutions.	Lesson 5: Addition and Subtraction of Fractions Lesson 6: Multiplication and

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			<p>Division of Fractions</p> <p>Lesson 8: Solving Equations with Fractions</p> <p>Lesson 13: Solving Equations with Decimals</p> <p>Lesson 7: Mixed Numbers</p>
7.2. Core Content: Proportionality and similarity (Operations, Geometry/Measurement, Algebra)		7.2.A Mentally add, subtract, multiply, and divide simple fractions, decimals, and percents.	<p>Lesson 5: Addition and Subtraction of Fractions</p> <p>Lesson 6: Multiplication and Division of Fractions</p> <p>Lesson 8: Solving Equations with Fractions</p> <p>Lesson 13: Solving Equations with Decimals</p> <p>Lesson 7: Mixed Numbers</p> <p>Lesson 18: Solving Equations with Percents</p>
		7.2.B Solve single- and multi-step problems involving proportional relationships and verify the solutions.	Lesson 31: Ratios and Proportions
		7.2.C Describe proportional relationships in similar figures and solve problems involving similar figures.	Lesson 31: Ratios and Proportions
		7.2.D Make scale drawings and solve problems related to scale.	

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		7.2.E Represent proportional relationships using graphs, tables, and equations, and make connections among the representations.	Lesson 31: Ratios and Proportions
		7.2.F Determine the slope of a line corresponding to the graph of a proportional relationship and relate slope to similar triangles.	Lesson 31: Ratios and Proportions
		7.2.G Determine the unit rate in a proportional relationship and relate it to the slope of the associated line.	
		7.2.H Determine whether or not a relationship is proportional and explain your reasoning.	
		7.2.I Solve single- and multi-step problems involving conversions within or between measurement systems and verify the solutions	Lesson 29: Measurement
7.3. Core Content: Surface area and volume (Algebra, Geometry/Measurement)		7.3.A Determine the surface area and volume of cylinders using the appropriate formulas and explain why the formulas work.	Lesson 27: Volume and Surface Area
		7.3.B Determine the volume of pyramids and cones using formulas.	Lesson 27: Volume and Surface Area
		7.3.C Describe the effect that a change in scale factor on one attribute of a two- or three-dimensional figure has on other	Lesson 27: Volume and Surface Area

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		attributes of the figure, such as the side or edge length, perimeter, area, surface area, or volume of a geometric figure.	
		7.3.D Solve single- and multi-step word problems involving surface area or volume and verify the solutions.	Lesson 27: Volume and Surface Area
7.4. Core Content: Probability and data (Data/Statistics/Probability)		7.4.A Represent the sample space of probability experiments in multiple ways, including tree diagrams and organized lists.	Lesson 20: Probability
		7.4.B Determine the theoretical probability of a particular event and use theoretical probability to predict experimental outcomes.	Lesson 20: Probability
		7.4.C Describe a data set using measures of center (median, mean, and mode) and variability (maximum, minimum, and range) and evaluate the suitability and limitations of using each measure for different situations.	Lesson 19: Mean, Median, Mode, Range
		7.4.D Construct and interpret histograms, stem-and-leaf plots, and circle graphs.	Lesson 30: Graphs and Data Analysis
		7.4.E Evaluate different displays of the same data for effectiveness and bias, and explain reasoning.	
7.5. Additional Key Content (Numbers, Algebra)		7.5.A Graph ordered pairs of rational	Lesson 35: Functions, Graphs,

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		numbers and determine the coordinates of a given point in the coordinate plane.	and Linear Equations
		7.5.B Write the prime factorization of whole numbers greater than 1, using exponents when appropriate.	Lesson 4: Comparing and Ordering Fractions
7.6. Core Processes: Reasoning, problem solving, and communication		7.6.A Analyze a problem situation to determine the question(s) to be answered.	Lesson 16: Percent of Change Lesson 17: Simple Interest
		7.6.B Identify relevant, missing, and extraneous information related to the solution to a problem.	Lesson 16: Percent of Change Lesson 17: Simple Interest
		7.6.C Analyze and compare mathematical strategies for solving problems, and select and use one or more strategies to solve a problem.	Lesson 20: Probability
		7.6.D Represent a problem situation, describe the process used to solve the problem, and verify the reasonableness of the solution.	Lesson 32: Number Concepts
		7.6.E Communicate the answer(s) to the question(s) in a problem using appropriate representations, including symbols and informal and formal mathematical language.	Lesson 32: Number Concepts
		7.6.F Apply a previously used problem-solving strategy in a new	Lesson 11: Addition and Subtraction of Decimals Lesson 12:

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		context.	Multiplication and Division of Decimals
		7.6.G Extract and organize mathematical information from symbols, diagrams, and graphs to make inferences, draw conclusions, and justify reasoning.	Lesson 32: Number Concepts Lesson 30: Graphs and Data Analysis
		7.6.H Make and test conjectures based on data (or information) collected from explorations and experiments.	