



# Scope & Sequence

## *Exploring Creation with Mathematics, Level 6*

**GRADE LEVEL:** 6

**TEXT SUMMARY:** *Exploring Creation with Mathematics, Level 6* is designed to launch your mind on an educational journey to learn how numbers help us describe our world and universe. Students will learn new concepts in mathematical operations including multiplication, fractions, decimals, ratios, probabilities, percents, negative numbers, algebra and geometry. The text is deliberate in providing examples of real-world applications and offers several practice opportunities and activities.

### Unit 1: WHOLE NUMBERS, DECIMALS, AND FRACTIONS

Chapter	Summary	Main Themes	Supporting Activities
<b>CHAPTER 1</b> <i>Whole Numbers</i>	In this chapter the student will learn how to find multiples and factors. The student will also learn how to evaluate exponents and use the order of operations.	<ul style="list-style-type: none"> <li>• Multiples</li> <li>• Multiplication</li> <li>• Factors</li> <li>• Prime Factorization</li> <li>• Long Division (Day One)</li> <li>• Long Division (Day Two)</li> <li>• Exponents</li> <li>• Squares and Square Roots</li> <li>• The Order of Operations (Day One)</li> <li>• The Order of Operations (Day Two)</li> <li>• Distributive Property</li> </ul>	<ul style="list-style-type: none"> <li>• The Most Multiples</li> <li>• Fabulous Factors</li> <li>• Long Division Scramble</li> <li>• Exponent Exploration</li> <li>• Square Number Bingo</li> <li>• Order of Operations Foldable</li> <li>• Skills Check</li> </ul>
<b>CHAPTER 2</b> <i>Decimals</i>	In this chapter the student will learn to add, subtract, multiply and divide decimals.	<ul style="list-style-type: none"> <li>• Adding Decimals</li> <li>• Subtracting Decimals</li> <li>• Adding &amp; Subtracting Decimals</li> <li>• Multiplying Decimals</li> <li>• Dividing Whole Numbers with Decimal Answers</li> <li>• Dividing Decimals</li> <li>• Decimal Mixed Review</li> <li>• Problem Solving Practice #1</li> </ul>	<ul style="list-style-type: none"> <li>• Decimals Board Game</li> <li>• Splitting the Bill</li> <li>• Dividing Grids</li> <li>• Takeout Night Money Management</li> <li>• Skills Check</li> </ul>

Continued on next page.



## Scope & Sequence

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Chapter	Summary	Main Themes	Supporting Activities
<b>CHAPTER 3</b> <i>Fractions</i>	<p>In this chapter the student will learn how to convert between fractions and decimals. The student will also learn how to add, subtract, multiply and divide fractions and mixed numbers.</p>	<ul style="list-style-type: none"> <li>• Fractions and Decimals</li> <li>• Repeating Decimals</li> <li>• Adding and Subtracting Fractions</li> <li>• Add and Subtract Mixed Numbers (Day One)</li> <li>• Add and Subtract Mixed Numbers (Day Two)</li> <li>• Multiply Fractions</li> <li>• Multiply Mixed Numbers</li> <li>• Divide Fractions</li> <li>• Divide Whole Numbers with Fraction Answers</li> <li>• Divide Mixed Numbers</li> <li>• Mixed Fraction Review</li> </ul>	<ul style="list-style-type: none"> <li>• Fraction and Decimal Memory</li> <li>• Calculator Conversions</li> <li>• Improper Domino War</li> <li>• Fill the Squares</li> <li>• Mixed Number Roll</li> <li>• Dividing Fraction Tiles</li> <li>• Splitting a Recipe</li> <li>• Improper Domino War</li> <li>• Skills Check</li> <li>• <b>Unit 1 Project: Geometric Art</b></li> </ul>

### Unit 2: RATIOS, RATES, AND PERCENTS

Chapter	Summary	Main Themes	Supporting Activities
<b>CHAPTER 4</b> <i>Ratios &amp; Rates</i>	<p>In this chapter the student will learn to use ratios to compare amounts. They will also learn how to find unit rates as well as compare rates.</p>	<ul style="list-style-type: none"> <li>• Ratios (Day One)</li> <li>• Ratios (Day Two)</li> <li>• Equivalent Ratios</li> <li>• Ratio Tables</li> <li>• Rates</li> <li>• Sugar Rates</li> <li>• Unit Prices</li> <li>• Zip Line Rates</li> </ul>	<ul style="list-style-type: none"> <li>• The Most Multiples</li> <li>• Fruit Salad Ratios</li> <li>• Flipping Coins</li> <li>• Acting Out Ratios</li> <li>• Sugar Rates</li> <li>• Comparing Prices</li> <li>• Zip Line Rates</li> <li>• Skills Check</li> </ul>
<b>CHAPTER 5</b> <i>Percents</i>	<p>In this chapter the student will learn to convert between fractions, decimals, and percents. They will also learn to find percents as well as find the percent of a number.</p>	<ul style="list-style-type: none"> <li>• Introduction to Percents</li> <li>• Percent to Decimal</li> <li>• Percent to Fraction</li> <li>• Fractions, Decimals, and Percents (Day One)</li> <li>• Fractions, Decimals, and Percents (Day Two)</li> <li>• Ordering Fractions, Decimals, and Percents</li> <li>• Finding a Percent</li> <li>• Percent of a Number</li> <li>• Problem Solving Practice #2</li> </ul>	<ul style="list-style-type: none"> <li>• Fabulous Fiber</li> <li>• Percents Scavenger Hunt</li> <li>• Fractions, Decimals, and Percents Foldable</li> <li>• Crayon Sort</li> <li>• Paper Clip Number Line</li> <li>• Dice Roll</li> <li>• Skills Check</li> <li>• <b>Unit 2 Project: Ratios in the Human Body</b></li> </ul>

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## Scope & Sequence

### *Exploring Creation with Mathematics, Level 6*

#### Unit 3: MEASUREMENT, DATA, AND PROBABILITY

Chapter	Summary	Main Themes	Supporting Activities
<b>CHAPTER 6</b> <i>Measurement &amp; Conversions</i>	In this chapter the student will learn how to convert units of time as well as convert in the metric and customary systems.	<ul style="list-style-type: none"> <li>• Elapsed Time</li> <li>• Celsius and Fahrenheit</li> <li>• Measuring and Converting Length</li> <li>• Measuring and Converting Capacity</li> <li>• Measuring and Converting Weight and Mass</li> <li>• Problem Solving Practice #3</li> </ul>	<ul style="list-style-type: none"> <li>• Movie Math</li> <li>• Global Temperatures</li> <li>• Conversion</li> <li>• Skills Check</li> </ul>
<b>CHAPTER 7</b> <i>Displaying &amp; Analyzing Data</i>	In this chapter the student will learn how to display and analyze data. Your student will also learn how to find the mean, median and mode as well as the range of a set of data.	<ul style="list-style-type: none"> <li>• Bar Graphs and Line Graphs</li> <li>• Circle Graphs</li> <li>• Mean, Median, Mode, and Range</li> <li>• Box Plots</li> <li>• Histograms</li> <li>• Survey Mini-Project</li> </ul>	<ul style="list-style-type: none"> <li>• Measuring Melting</li> <li>• Left-Handed or Right-Handed Circle Graph</li> <li>• How Many Bikes?</li> <li>• Cut and Paste Histogram</li> <li>• Create Your Own Survey</li> <li>• Skills Check</li> </ul>
<b>CHAPTER 8</b> <i>Probability</i>	In this chapter the student will learn how to find the experimental and theoretical probability of an event.	<ul style="list-style-type: none"> <li>• Experimental Probability</li> <li>• Theoretical Probability</li> <li>• Experimental and Theoretical Probability</li> <li>• Probability Word Problems</li> <li>• Probability in Monopoly</li> </ul>	<ul style="list-style-type: none"> <li>• Flipping a Coin</li> <li>• Dominating Dice</li> <li>• Comparing Experimental and Theoretical Probability</li> <li>• Probability with Cards</li> <li>• Winning Monopoly</li> <li>• Skills Check</li> <li>• <b>Unit 3 Project: Create Your Own Board Game</b></li> </ul>

Continued on next page.



# Scope & Sequence

## *Exploring Creation with Mathematics, Level 6*

### Unit 4: NEGATIVE NUMBERS

Chapter	Summary	Main Themes	Supporting Activities
<p><b>CHAPTER 9</b> <i>Introduction to Negative Numbers</i></p>	<p>In this chapter the student will learn to graph and compare negative numbers. Your student will also learn to find opposites and the absolute value of integers.</p>	<ul style="list-style-type: none"> <li>• Integers and Opposites</li> <li>• Negative Numbers on the Number line (Part One)</li> <li>• Negative Numbers on the Number line (Part Two)</li> <li>• Comparing Negative Numbers</li> <li>• Absolute Value</li> <li>• Problem Solving Practice #4</li> </ul>	<ul style="list-style-type: none"> <li>• Negative Numbers in Real Life</li> <li>• Walkable Number Line (Part One)</li> <li>• Walkable Number Line (Part Two)</li> <li>• Absolute Value Exploration</li> <li>• Skills Check</li> </ul>
<p><b>CHAPTER 10</b> <i>Operations with Negative Numbers</i></p>	<p>The student will learn how to add, subtract, multiply, and divide positive and negative integers.</p>	<ul style="list-style-type: none"> <li>• Adding Integers (Part One)</li> <li>• Adding Integers (Part Two)</li> <li>• Subtracting Integers (Part One)</li> <li>• Subtracting Integers (Part Two)</li> <li>• Multiplying Integers (Part One)</li> <li>• Multiplying Integers (Part Two)</li> <li>• Dividing Integers</li> <li>• Multiplying and Dividing Integers</li> </ul>	<ul style="list-style-type: none"> <li>• Walkable Number Line Addition</li> <li>• Negative and Positive Counting Chips</li> <li>• Walkable Number Line Subtraction</li> <li>• Subtracting a Negative with Counters</li> <li>• Multiplying Counters (Part One)</li> <li>• Dividing Counters (Part One)</li> <li>• Skills Check</li> <li>• <b>Unit 4 Project: Elevations</b></li> </ul>

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# Scope & Sequence

## Exploring Creation with Mathematics, Level 6

### UNIT 5: INTRODUCTION TO ALGEBRA

Chapter	Summary	Main Themes	Supporting Activities
<b>CHAPTER 11</b> <i>Algebraic Expressions and Equations</i>	<p>In this chapter the student will learn how to write and evaluate algebraic expressions. Your student will also learn how to write and solve algebraic equations.</p>	<ul style="list-style-type: none"> <li>• Properties of Numbers</li> <li>• Algebraic Expressions (Part One)</li> <li>• Algebraic Expressions (Part Two)</li> <li>• Simplifying Algebraic Expressions (Part One)</li> <li>• Simplifying Algebraic Expressions (Part Two)</li> <li>• Evaluating Algebraic Expressions (Part One)</li> <li>• Evaluating Algebraic Expressions (Part Two)</li> <li>• Writing Equations</li> <li>• Addition and Subtraction Equations (Part One)</li> <li>• Addition and Subtraction Equations (Part Two)</li> <li>• Multiplication and Division Equations</li> <li>• Mixed Equations</li> </ul>	<ul style="list-style-type: none"> <li>• Properties of Numbers Flipbook</li> <li>• Color the Expressions</li> <li>• Algebraic Expressions Matching Activity</li> <li>• Imaginary Job</li> <li>• Balancing Banana Boxes (Part 1)</li> <li>• Equation Chain</li> <li>• Balancing Banana Boxes (Part 2)</li> <li>• Balancing Banana Boxes (Part 3)</li> <li>• Skills Check</li> </ul>
<b>CHAPTER 12</b> <i>Inequalities</i>	<p>This chapter will teach the student how to interpret inequalities with negative numbers as well as graphing inequalities.</p>	<ul style="list-style-type: none"> <li>• Introduction to Inequalities</li> <li>• Negative Inequalities</li> <li>• Graphing Inequalities</li> <li>• Inequality Word Problems</li> <li>• Mixed Inequality Review</li> </ul>	<ul style="list-style-type: none"> <li>• Inequalities in Real Life</li> <li>• Inequality Matching Activity</li> <li>• Inequalities in Real Life</li> <li>• Skills Check</li> </ul>
<b>CHAPTER 13</b> <i>Graphing Equations</i>	<p>In this chapter your student will learn how to graph points on the four quadrants of the coordinate plane. Your student will also learn how to make a table of solutions for an equation as well as graph an equation.</p>	<ul style="list-style-type: none"> <li>• The Coordinate Plane</li> <li>• Graphing Points</li> <li>• Graphing Points with Zeros</li> <li>• Making Tables for Equations</li> <li>• Tables and Graphs (Part One)</li> <li>• Tables and Graphs (Part Two)</li> <li>• Problem Solving Practice #5</li> </ul>	<ul style="list-style-type: none"> <li>• Coordinate Plane Foldable</li> <li>• Graphing Bingo</li> <li>• Graphing Bingo with Zeros</li> <li>• Age Differences</li> <li>• Tables and Graphs Matching Activity</li> <li>• Skills Check</li> <li>• <b>Unit 5 Project: Equation Poster</b></li> </ul>

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## Scope & Sequence

### *Exploring Creation with Mathematics, Level 6*

#### Unit 6: GEOMETRY

Chapter	Summary	Main Themes	Supporting Activities
<p><b>CHAPTER 14</b> <i>Area and Two- Dimensional Figures</i></p>	<p>In this chapter the student will learn how to find the area of figures as well as find distances on the coordinate plane.</p>	<ul style="list-style-type: none"> <li>• Area of Triangles (Part One)</li> <li>• Area of Triangles (Part Two)</li> <li>• Area of Parallelograms (Part One)</li> <li>• Area of Parallelograms (Part Two)</li> <li>• Composite Figures</li> <li>• Distance on the Coordinate Plane</li> <li>• Graphing Figures</li> <li>• Area and Perimeter on the Coordinate Plane</li> </ul>	<ul style="list-style-type: none"> <li>• Gridded Triangles</li> <li>• Dot Paper Triangles</li> <li>• Cutting Up Parallelograms</li> <li>• Composite Figure Exploration</li> <li>• Guess the Polygon</li> <li>• Skills Check</li> </ul>
<p><b>CHAPTER 15</b> <i>Three- Dimensional Figures</i></p>	<p>In this chapter the student will learn how to identify 3D shapes and their properties. Your student will also learn how to find the surface area and volume of rectangular solids.</p>	<ul style="list-style-type: none"> <li>• 3D Shapes and Their Properties</li> <li>• Nets</li> <li>• Surface Area (Part One)</li> <li>• Surface Area (Part Two)</li> <li>• Volume (Part One)</li> <li>• Volume (Part Two)</li> </ul>	<ul style="list-style-type: none"> <li>• Sorting 3D Shapes</li> <li>• Fold-Up Shapes</li> <li>• Gridded Net</li> <li>• Surface Area of a Box</li> <li>• Volume of a Rectangular Prism</li> <li>• Measure Your Refrigerator</li> <li>• Skills Check</li> <li>• <b>Unit 6 Project: Marshmallow Mansions</b></li> </ul>

**ADDITIONAL INFORMATION:** All consumable materials found in the Answer Key are also available as a PDF on the title's Book Extras site. There are also additional PDF worksheets available for struggling students.