

# 1 Factors, Multiples, Primes, and Composites

This chapter reviews factors, multiples, primes, composites, and divisibility rules.

**Standards:** 6.7D, 6.2A, 6.3D, 6.7A, 6.8D

Lesson	Lesson Title / Subtitle	Lesson Subtitle	TEKS	Key Math Objectives	Key Terms
1.1	<b>Collection Connections</b>	Factors and Multiples	6.7D	<ul style="list-style-type: none"> <li>List factor pairs of numbers.</li> <li>Relate factors, multiples, and divisibility.</li> </ul>	<ul style="list-style-type: none"> <li>Array</li> <li>Factor pair</li> <li>Factor</li> <li>Commutative Property of Multiplication</li> <li>Distinct factors</li> <li>Perfect square</li> <li>Multiple</li> <li>Divisible</li> </ul>
1.2	<b>Models and More</b>	Physical Models of Factors and Multiples	6.2A	<ul style="list-style-type: none"> <li>Determine factor pairs using arrays and area models.</li> <li>Classify numbers using Venn diagrams.</li> </ul>	<ul style="list-style-type: none"> <li>Area model</li> <li>Set</li> <li>Venn diagram</li> </ul>
1.3	<b>Sifting for Prime Numbers</b>	Investigating Prime and Composite Numbers	6.3D	<ul style="list-style-type: none"> <li>Distinguish between prime and composite numbers.</li> <li>Identify and use the multiplicative identity.</li> </ul>	<ul style="list-style-type: none"> <li>Prime numbers</li> <li>Composite numbers</li> <li>Multiplicative identity</li> </ul>
1.4	<b>Divisibility Rules!</b>	Investigating Divisibility Rules	6.3D	<ul style="list-style-type: none"> <li>Formulate divisibility rules based on patterns seen in factors.</li> <li>Use factors to help you develop divisibility rules.</li> </ul>	<ul style="list-style-type: none"> <li>Divisibility rules</li> </ul>

## 2 Prime Factorization and the Fundamental Theorem of Arithmetic

This chapter demonstrates how least common multiples and greatest common factors are used to solve real-world problems.

**Standards:** 6.3D, 6.7A, 6.8D

Lesson	Lesson Title / Subtitle	Lesson Subtitle	TEKS	Key Math Objectives	Key Terms
2.1	<b>The Think Tank</b>	Prime Factorization and Factor Trees	6.3D 6.7A 6.8D	<ul style="list-style-type: none"> <li>Determine the prime factorization of a number.</li> <li>Understand the usefulness of prime <math>\neq</math>factors.</li> <li>Recognize that each whole number has exactly one prime factorization.</li> </ul>	<ul style="list-style-type: none"> <li>Prime factorization</li> <li>Associative Property of Multiplication</li> <li>Factor tree</li> <li>Power</li> <li>Base</li> <li>Exponent</li> <li>Fundamental Theorem of Arithmetic</li> </ul>
2.2	<b>Together Again</b>	Investigating Multiples and Least Common Multiples	6.3D	<ul style="list-style-type: none"> <li>Determine the least common multiple of two numbers.</li> </ul>	<ul style="list-style-type: none"> <li>Common multiple</li> <li>Least common multiple (LCM)</li> </ul>
2.3	<b>Happenings at Harvest Day</b>	Investigating Factors and Greatest Common Factors	6.3D	<ul style="list-style-type: none"> <li>Determine the greatest common factor of two or more numbers.</li> </ul>	<ul style="list-style-type: none"> <li>Common factor</li> <li>Greatest common factor (GCF)</li> <li>Relatively prime numbers</li> </ul>
2.4	<b>Common Factors or Common Multiples?</b>	Using GCF and LCM to Solve Problems	6.3D	<ul style="list-style-type: none"> <li>Recognize how to use common factors and common multiples to solve problems.</li> </ul>	
<b>Learning Individually with MATHia or Skills Practice</b>			6.3D	In the MATHia software, students identify greatest common factors and least common multiples.	

# 3 Fractions

This chapter begins with a review of how to model parts of a whole and various fractional representations. Students create their own fraction strips and use them to model operations with fractions. The focus then shifts to the relationship between multiplication and division to understand the procedures for dividing fractions. An emphasis is placed on estimation skills throughout the chapter.

**Standards:** 6.2C, 6.2D, 6.4F, 6.4G, 6.5C

Lesson	Lesson Title / Subtitle	Lesson Subtitle	TEKS	Key Math Objectives	Key Terms
3.1	<b>Flags and Fractions</b>	Modeling Parts of a Whole	6.4F 6.5C	<ul style="list-style-type: none"> <li>Determine equal parts of a whole.</li> <li>Draw different representations of equal parts.</li> </ul>	<ul style="list-style-type: none"> <li>Fraction</li> <li>Numerator</li> <li>Denominator</li> </ul>
3.2	<b>You Mean Three Can Be One?</b>	Fractional Representations	6.5C	<ul style="list-style-type: none"> <li>Create different fractional representations using pattern blocks.</li> <li>Write fractional statements for different representations given the whole.</li> <li>Determine fractional representations given the whole.</li> <li>Determine fractional representations given parts of the whole.</li> </ul>	
3.3	<b>Rocket Strips</b>	Dividing a Whole into Fractional Parts	6.4F 6.5C	<ul style="list-style-type: none"> <li>Create equal parts of a whole.</li> <li>Determine if fractions are equal.</li> <li>Graph fractions on a number line.</li> </ul>	<ul style="list-style-type: none"> <li>Unit fraction</li> <li>Equivalent fractions</li> </ul>
3.4	<b>Getting Closer</b>	Benchmark Fractions	6.2C 6.4F	<ul style="list-style-type: none"> <li>Estimate fractions by using benchmark fractions.</li> <li>Order fractions in ascending order.</li> <li>Compare fractions.</li> </ul>	<ul style="list-style-type: none"> <li>Benchmark fractions</li> <li>Inequality</li> </ul>
3.5	<b>What's My Cut?</b>	Equivalent Fractions	6.2D 6.4G 6.5C	<ul style="list-style-type: none"> <li>Determine equal portions of a whole.</li> <li>Determine equivalent fractions.</li> <li>Calculate equivalent fractions using a form of 1.</li> <li>Simplify fractions.</li> <li>Order fractions.</li> </ul>	<ul style="list-style-type: none"> <li>Simplest form</li> <li>Multiplicative Identity Property</li> </ul>

Lesson	Lesson Title / Subtitle	Lesson Subtitle	TEKS	Key Math Objectives	Key Terms
3.6	<b>Trail Mix</b>	Adding and Subtracting Fractions with Like and Unlike Denominators	5.3.H 5.3.K	<ul style="list-style-type: none"> <li>• Write number sentences to represent</li> <li>• Create models to represent addition and subtraction of fractions.</li> <li>• Add and subtract fractions with common denominators.</li> <li>• Add and subtract fractions with unlike denominators.</li> </ul>	<ul style="list-style-type: none"> <li>• Common denominator</li> <li>• Least common denominator (LCD)</li> </ul>
3.7	<b>Trail Mix Extravaganza</b>	Improper Fractions and Mixed Numbers	5.3.H 5.3.K	<ul style="list-style-type: none"> <li>• Create models to represent mixed numbers.</li> <li>• Write mixed numbers as improper fractions.</li> <li>• Write improper fractions as mixed numbers.</li> </ul>	<ul style="list-style-type: none"> <li>• Mixed number</li> <li>• Improper fraction</li> </ul>
3.8	<b>Pizzas By the Slice— or the Rectangle!</b>	Parts of Parts	6.3B 6.3E 6.4F	<ul style="list-style-type: none"> <li>• Create models to represent parts of parts.</li> <li>• Analyze various methods for multiplying fractions.</li> <li>• Multiply fractions.</li> </ul>	
3.9	<b>Yours Is to Reason Why!</b>	Parts in a Part	6.2A 6.2E 6.3A 6.3E	<ul style="list-style-type: none"> <li>• Determine how many groups of a certain size are in a number.</li> <li>• Create a representation for division problems.</li> <li>• Divide fractions.</li> </ul>	<ul style="list-style-type: none"> <li>• Reciprocal</li> <li>• Multiplicative Inverse Property</li> <li>• Multiplicative inverse</li> </ul>
3.10	<b>Divide Your Time Well, and Your Trail Mix, and Your . . .</b>	Mixed Number Division	6.2E 6.3A 6.3B 6.3E	<ul style="list-style-type: none"> <li>• Determine how many groups of a certain size are in a number.</li> <li>• Create a representation for division problems involving mixed numbers.</li> <li>• Divide fractions involving mixed numbers.</li> </ul>	
<b>Learning Individually with MATHia or Skills Practice</b>			6.2E 6.3A 6.3B	In the MATHia software, students reason about how fraction multiplication increases or decreases a quantity. They model fraction division and relate fraction division to fraction multiplication to solve problems. Students develop an understanding of the algorithm for fraction division before calculating products and quotients of fractions.	

# 4 Decimals

This chapter begins with a comprehensive review of decimals. Models are used to develop the conceptual understanding of operations with decimals. Estimation is emphasized throughout.

**Standards:** 6.2C, 6.2D, 6.3E, 6.3D, 6.4F, 6.4G, 6.5C

Lesson	Lesson Title / Subtitle	Lesson Subtitle	TEKS	Key Math Objectives	Key Terms
4.1	<b>Minty Fresh-Coins?</b>	Introduction to Decimals	6.2C 6.4G	<ul style="list-style-type: none"> <li>Understand decimals as parts of wholes.</li> <li>Represent decimals on a hundredths grid.</li> <li>Write decimals.</li> <li>Represent decimals on a number line.</li> </ul>	<ul style="list-style-type: none"> <li>Decimal</li> </ul>
4.2	<b>You Be the Judge</b>	Comparing, Ordering, Estimating, and Rounding Decimals	6.2C 6.2D	<ul style="list-style-type: none"> <li>Compare decimal representations.</li> <li>Order decimals.</li> <li>Estimate sums and differences of decimals.</li> <li>Estimate decimals to benchmark numbers.</li> <li>Round decimals.</li> </ul>	<ul style="list-style-type: none"> <li>Benchmark decimal</li> <li>Round</li> </ul>
4.3	<b>The Ancient Spaniards Didn't Count the Thumbs!</b>	Fraction-Decimal Equivalents	6.2C 6.4G 6.5C	<ul style="list-style-type: none"> <li>Write fractions as decimals.</li> </ul>	<ul style="list-style-type: none"> <li>Terminating decimal</li> <li>Repeating decimal</li> </ul>
4.4	<b>When Less Is Better</b>	Adding and Subtracting Decimals	6.2D	<ul style="list-style-type: none"> <li>Estimate the sum and difference with decimals.</li> <li>Add and subtract decimals.</li> </ul>	
4.5	<b>I Just Spent One Week Going to Work!</b>	Multiplying by Decimals	6.3E	<ul style="list-style-type: none"> <li>Use hundredths and decimal grids to multiply two decimals.</li> <li>Multiply decimals by whole numbers.</li> <li>Multiply two decimals.</li> <li>Use fractions to calculate the products of decimals.</li> <li>Calculate the product of decimals using fractional forms.</li> <li>Estimate the product of decimals.</li> </ul>	

Lesson	Lesson Title / Subtitle	Lesson Subtitle	TEKS	Key Math Objectives	Key Terms
4.6	<b>Organized Estimation</b>	Long Division of Whole Numbers	6.3D	<ul style="list-style-type: none"> <li>Estimate quotients.</li> <li>Develop an algorithm for dividing whole numbers.</li> </ul>	<ul style="list-style-type: none"> <li>Dividend</li> <li>Divisor</li> <li>Quotient</li> </ul>
4.7	<b>Los Angeles Commute Didn't Top the List?</b>	Dividing Decimals	6.3E	<ul style="list-style-type: none"> <li>Estimate quotients of division of decimals.</li> <li>Divide decimals.</li> </ul>	
<b>Learning Individually with MATHia or Skills Practice</b>			6.3E 6.4G	In the MATHia software, students convert fractions to decimals. They operate with decimals to solve problems by examining worked examples, completing partially-completed worked examples, analyzing patterns, and using a standard algorithm.	

# 5 Ratios

This chapter focuses on the concept of ratios and the ratio relationship between two quantities. Ratio reasoning is developed through the use of tables, double number lines, and graphs. Rate and ratio reasoning is used to solve various real-world problems.

**Standards:** 6.3E, 6.4A, 6.4B, 6.4C, 6.4D, 6.4E, 6.4G, 6.4H, 6.5A

Lesson	Lesson Title / Subtitle	Lesson Subtitle	TEKS	Key Math Objectives	Key Terms
5.1	<b>Mixing Paint</b>	Introduction to Ratios	6.4A 6.4B 6.4C 6.4D 6.4E	<ul style="list-style-type: none"> <li>Write ratios as part-to-part and part-to-whole relationships.</li> <li>Represent ratios using models.</li> <li>Use models to determine equivalent ratios.</li> </ul>	<ul style="list-style-type: none"> <li>Ratio</li> </ul>
5.2	<b>What's in a Name?</b>	Ratio Representations	6.4B 6.4C 6.4D 6.4E	<ul style="list-style-type: none"> <li>Write comparisons using ratios.</li> <li>Distinguish between part-to-part and part-to-whole ratios.</li> <li>Write equivalent ratios.</li> </ul>	
5.3	<b>I'd Like to Solve the Puzzle . . .</b>	Writing Equivalent Ratios	6.4A 6.4B 6.4C 6.4D 6.4E 6.4H 6.5A	<ul style="list-style-type: none"> <li>Write ratios.</li> <li>Scale up and scale down ratios.</li> </ul>	<ul style="list-style-type: none"> <li>Rate</li> <li>Scaling up</li> <li>Scaling down</li> </ul>
5.4	<b>The Most Important Meal of the Day</b>	Modeling Ratios	6.4B 6.4D 6.4E 6.5A	<ul style="list-style-type: none"> <li>Use double number lines and diagrams to solve problems involving ratios.</li> </ul>	<ul style="list-style-type: none"> <li>Double number line</li> </ul>
5.5	<b>A Trip to the Moon</b>	Using Tables to Represent Equivalent Ratios	6.4A 6.4B 6.4C 6.4D 6.4E 6.5A	<ul style="list-style-type: none"> <li>Create tables of equivalent ratios.</li> <li>Use known values in a table to determine equivalent ratios.</li> </ul>	
5.6	<b>Graphing Out Equivalence</b>	Using Graphs to Represent Equivalent Ratios	6.4A 6.4B 6.4C 6.4E 6.4G 6.5A	<ul style="list-style-type: none"> <li>Graph a table of equivalent values.</li> <li>Read equivalent ratios from graphs.</li> <li>Use graphs to determine equivalent ratios.</li> <li>Use graphs to compare different ratios.</li> </ul>	

Lesson	Lesson Title / Subtitle	Lesson Subtitle	TEKS	Key Math Objectives	Key Terms
5.7	<b>Water Is a Precious Resource</b>	Using Multiple Ratio Representations to Solve Problems	6.4A 6.4B 6.4C 6.4E 6.5A	<ul style="list-style-type: none"> <li>• Read and interpret ratios from graphs, double number lines, and tables.</li> <li>• Use multiple ratio models to solve problems.</li> <li>• Determine equivalent ratios using multiple representations.</li> </ul>	
5.8	<b>What Is the Better Buy?</b>	Introduction to Unit Rates	6.3E 6.4B 6.4D	<ul style="list-style-type: none"> <li>• Use unit rates to solve problems.</li> <li>• Use unit rates to calculate the best buy.</li> <li>• Calculate unit rates.</li> </ul>	<ul style="list-style-type: none"> <li>• Unit rate</li> </ul>
<b>Learning Individually with MATHia or Skills Practice</b>			6.4A 6.4D 6.5A	In the MATHia software, students write part-to-part and part-to-whole ratios using different notations. They use tables, double number lines, and graphs to solve real-world and mathematical problems involving equivalent ratios and rates.	



# 6 Percents

This chapter extends ratio reasoning to include percents. Estimation and benchmark percents are emphasized to continue the development of number sense. Various strategies are presented to help students think about efficiency when solving problems.

**Standards:** 6.2D, 6.3E, 6.4B, 6.4C, 6.4E, 6.4F, 6.4G, 6.5A, 6.5B, 6.5C

Lesson	Lesson Title / Subtitle	Lesson Subtitle	TEKS	Key Math Objectives	Key Terms
6.1	<b>Percents Can Make or Break You!</b>	Introduction to Percents	6.3E 6.4E 6.4F 6.4G 6.5B 6.5C	<ul style="list-style-type: none"> <li>• Write fractions, decimals, and percents.</li> <li>• Model percents on a hundredths grid.</li> <li>• Explain the similarities and differences of percents, fractions, and decimals.</li> </ul>	<ul style="list-style-type: none"> <li>• Percent</li> </ul>
6.2	<b>Wacky Weather!</b>	Estimating Percents	6.2D 6.3E 6.4E 6.4F 6.5B 6.5C	<ul style="list-style-type: none"> <li>• Estimate percents as fractions and decimals.</li> <li>• Write fractions as percents.</li> <li>• Identify equivalent forms of fractions, decimals, and percents.</li> <li>• Order fractions, decimals, and percents.</li> </ul>	<ul style="list-style-type: none"> <li>• Benchmark percents</li> </ul>
6.3	<b>It's All in the Follow-through</b>	Determining the Percent of a Number	6.3E 6.4B 6.4C 6.4E 6.4F 6.4G 6.5A 6.5B	<ul style="list-style-type: none"> <li>• Determine the percent of a number.</li> <li>• Use double number lines.</li> </ul>	
6.4	<b>Mi Mi Mi Mi Mi Mi Mi!</b>	Determining the Part, Whole, or Percent of Percent Problems	6.3E 6.4B 6.4C 6.4E 6.4F 6.5A 6.5B 6.5C	<ul style="list-style-type: none"> <li>• Determine the percent given the part and the whole.</li> <li>• Determine the whole given a part and the percent.</li> <li>• Determine the part given the whole and the percent.</li> </ul>	
6.5	<b>Practical Percents Practice!</b>	Using Percents in Real-World Situations	6.3E 6.4B 6.4E 6.5B	<ul style="list-style-type: none"> <li>• Calculate the percent increase and decrease.</li> <li>• Calculate the discount of a base price.</li> <li>• Calculate additional discount on sales price.</li> <li>• Calculate gratuity on a bill.</li> <li>• Calculate sales tax.</li> </ul>	<ul style="list-style-type: none"> <li>• Commission</li> <li>• Gratuity</li> </ul>

Lesson	Lesson Title / Subtitle	Lesson Subtitle	TEKS	Key Math Objectives	Key Terms
			6.4E 6.4F	In the MATHia software, students convert between fractions, decimals, and percents. They solve real-world and mathematical percent problems by using bar models, using equivalent fractions, or determining a fraction of a quantity.	

# 7 Introduction to Expressions

This chapter reviews numerical expressions that lead to algebraic expressions. A variable is introduced as a representation of a quantity that varies. An emphasis is placed on writing and representing expressions in multiple ways.

**Standards:** 6.6A, 6.6C, 6.7A, 6.7B, 6.7C, 6.8D, 6.11A

Lesson	Lesson Title / Subtitle	Lesson Subtitle	TEKS	Key Math Objectives	Key Terms
7.1	<b>There's a Reason Behind the Rhyme</b>	Order of Operations	6.7A 6.7C	<ul style="list-style-type: none"> <li>Evaluate numerical expressions with addition, subtraction, multiplication, and division.</li> <li>Evaluate numerical expressions involving exponents and parentheses.</li> <li>Justify the order of operations used to simplify numerical expressions.</li> </ul>	<ul style="list-style-type: none"> <li>Conventions</li> <li>Numerical expression</li> <li>Evaluate</li> <li>Operations</li> <li>Parentheses</li> <li>Order of operations</li> </ul>
7.2	<b>Getting to the Root of It</b>	Exploring Squares, Cubes, and Roots	6.8D	<ul style="list-style-type: none"> <li>Determine the square of a number.</li> <li>Calculate the square root of a number.</li> <li>Determine the cube of a number.</li> <li>Calculate the cube root of a number.</li> </ul>	<ul style="list-style-type: none"> <li>Square of a number</li> <li>Perfect squares</li> <li>Square root</li> <li>Radical</li> <li>Radicand</li> <li>Perfect cube</li> <li>Cube of a number</li> <li>Cube root</li> <li>Index</li> </ul>
7.3	<b>Things that Vary</b>	Understanding Variables	6.7B	<ul style="list-style-type: none"> <li>Analyze problem situations.</li> <li>Solve problems.</li> <li>Define variables.</li> <li>Write algebraic expressions.</li> <li>Evaluate algebraic expressions.</li> <li>Write equations.</li> </ul>	<ul style="list-style-type: none"> <li>Variable</li> <li>Algebraic expression</li> <li>Equation</li> </ul>
7.4	<b>What's My Number?</b>	Writing Algebraic Expressions	6.7B	<ul style="list-style-type: none"> <li>Write expressions.</li> <li>Write algebraic expressions to determine values for real world situations.</li> <li>Determine the parts of an algebraic expression.</li> </ul>	<ul style="list-style-type: none"> <li>Numerical coefficient</li> <li>Constant</li> <li>Evaluate an algebraic expression</li> </ul>
7.5	<b>Different Ways</b>	Multiple Representations of Algebraic Expressions	6.6A 6.6C 6.11A	<ul style="list-style-type: none"> <li>Use verbal descriptions, diagrams, algebraic expressions, tables, and graphs to represent problem situations.</li> </ul>	<ul style="list-style-type: none"> <li>Multiple representations</li> </ul>

Lesson	Lesson Title / Subtitle	Lesson Subtitle	TEKS	Key Math Objectives	Key Terms
7.6	<b>There's More than One Way</b>	Using Multiple Representations of Problems	6.6C	<ul style="list-style-type: none"> <li>• Use multiple representations to analyze and solve problems.</li> </ul>	
<b>Learning Individually with MATHia or Skills Practice</b>			6.7A	In the MATHia software, students rewrite and evaluate expressions using the Order of Operations and properties, including expressions with parentheses and exponents.	

## 8 Algebraic Expressions

This chapter develops an understanding of the Distributive Property through real-world situations, manipulatives, and analysis of student work. An emphasis is placed on extending and applying properties of operations to generate equivalent expressions, and to determine when two expressions are equivalent.

**Standards:** 6.6C, 6.7A, 6.7B, 6.7D, 6.7C, 6.7D

Lesson	Lesson Title / Subtitle	Lesson Subtitle	TEKS	Key Math Objectives	Key Terms
8.1	<b>The Parts of Cars You Don't See</b>	Relationships between Quantities	6.7B	<ul style="list-style-type: none"> <li>Predict the next term in a sequence.</li> <li>Write numerical and algebraic expressions.</li> </ul>	<ul style="list-style-type: none"> <li>Sequence</li> <li>Term</li> </ul>
8.2	<b>Tile Work</b>	Simplifying Algebraic Expressions	6.7D	<ul style="list-style-type: none"> <li>Use the Associative and Commutative Properties of Addition and Multiplication to simplify expressions.</li> <li>Use the Order of Operations.</li> <li>Use algebra tiles to simplify algebraic expressions.</li> </ul>	<ul style="list-style-type: none"> <li>Commutative Property of Addition</li> <li>Commutative Property of Multiplication</li> <li>Associative Property of Addition</li> <li>Associative Property of Multiplication</li> <li>Simplify</li> <li>Like terms</li> </ul>
8.3	<b>Blueprints to Floor Plans to Computers</b>	Using the Distributive Property to Simplify Algebraic Expressions	6.7D 6.7C	<ul style="list-style-type: none"> <li>Simplify algebraic expressions using the Distributive Property.</li> <li>Write algebraic expressions using the Distributive Property.</li> <li>Model the Distributive Property using algebra tiles.</li> </ul>	<ul style="list-style-type: none"> <li>Distributive Property of Multiplication over Addition</li> <li>Distributive Property of Multiplication over Subtraction</li> <li>Distributive Property of Division over Addition</li> <li>Distributive Property of Division over Subtraction</li> </ul>
8.4	<b>Are They Saying the Same Thing?</b>	Multiple Representations of Equivalent Expressions	6.6C 6.7C 6.7D	<ul style="list-style-type: none"> <li>Compare expressions using properties, tables, and graphs.</li> <li>Graph expressions on a calculator.</li> <li>Determine if two expressions are equivalent.</li> <li>Write the corresponding expressions to problem situations.</li> </ul>	<ul style="list-style-type: none"> <li>Equivalent expressions</li> </ul>
8.5	<b>Like and Unlike</b>	Combining Like Terms	6.7D	<ul style="list-style-type: none"> <li>Develop models for algebraic terms.</li> <li>Use models to combine like terms in algebraic expressions.</li> <li>Combine like terms in algebraic expressions.</li> </ul>	
8.6	<b>DVDs and Songs: Fun with Expressions</b>	Using Algebraic Expressions to Analyze and Solve Problems	6.7D	<ul style="list-style-type: none"> <li>Represent problem situations with algebraic expressions.</li> <li>Analyze and solve problems with algebraic expressions.</li> </ul>	

Lesson	Lesson Title / Subtitle	Lesson Subtitle	TEKS	Key Math Objectives	Key Terms
			6.7A 6.7C 6.7D	In the MATHia software, students identify parts of simple algebraic expressions. They write and evaluate algebraic expressions with multiple variables for real-world and mathematical problems. Students create and identify equivalent expressions.	

# 9 Inequalities and Equations

This chapter introduces algebraic equations and inequalities. A pan balance model is used to develop the conceptual understanding of solving equations involving one step. Equations, tables, and graphs are used to represent and solve real-world problems.

**Standards:** 6.2A, 6.2B, 6.2E, 6.3E, 6.4A, 6.4B, 6.4D, 6.6A, 6.6B, 6.6C, 6.7B, 6.7D, 6.9A, 6.9B, 6.9C, 6.10A, 6.10B

Lesson	Lesson Title / Subtitle	Lesson Subtitle	TEKS	Key Math Objectives	Key Terms
9.1	<b>Call to Order</b>	Inequalities	6.2A 6.9A 6.9B 6.9C	<ul style="list-style-type: none"> <li>Use inequalities to order the number system.</li> <li>Graph inequalities on the number line.</li> </ul>	<ul style="list-style-type: none"> <li>Inequality</li> <li>Graph of an inequality</li> <li>Solution set of an inequality</li> <li>Ray</li> </ul>
9.2	<b>Opposites Attract to Maintain a Balance</b>	Solving One-Step Equation Using Addition and Subtraction	6.4A 6.7D 6.9A 6.9B 6.9C 6.10A 6.10B	<ul style="list-style-type: none"> <li>Use inverse operations to solve one-step equations.</li> <li>Use models to represent one-step equations.</li> </ul>	<ul style="list-style-type: none"> <li>One-step equation</li> <li>Properties of Equality for Addition and Subtraction</li> <li>Solution</li> <li>Inverse operations</li> </ul>
9.3	<b>Statements of Equality Redux</b>	Solving One-Step Equations Using Multiplication and Division	6.2E 6.3E 6.4B 6.7D 6.9A 6.9B 6.9C 6.10B	<ul style="list-style-type: none"> <li>Use inverse operations to solve one-step equations.</li> <li>Use models to represent one-step equations.</li> </ul>	<ul style="list-style-type: none"> <li>Properties of Equality for Multiplication and Division</li> </ul>
9.4	<b>There Are Many Ways ...</b>	Representing Situations in Multiple Ways	6.4A 6.4B 6.4D 6.6C 6.7B 6.9A 6.9C	<ul style="list-style-type: none"> <li>Represent two quantities that change in words, symbols, tables, and graphs.</li> <li>Solve one-step equations.</li> </ul>	
9.5	<b>Measuring Short</b>	Using Multiple Representations to Solve Problems	6.4A 6.4B 6.4D 6.6B 6.6C 6.7B 6.9A	<ul style="list-style-type: none"> <li>Use multiple representations (words, symbols, tables, and graphs) to solve problems.</li> </ul>	

Lesson	Lesson Title / Subtitle	Lesson Subtitle	TEKS	Key Math Objectives	Key Terms
9.6	<b>Variables and More Variables</b>	The Many Uses of Variables in Mathematics	6.6B 6.6C 6.9A	<ul style="list-style-type: none"> <li>Examine the many different uses of variables in mathematics.</li> </ul>	<ul style="list-style-type: none"> <li>Homonyms</li> </ul>
9.7	<b>Quantities that Change</b>	Independent and Dependent Variables	6.4B 6.4D 6.6A 6.6B 6.6C 6.9A	<ul style="list-style-type: none"> <li>Identify and define independent and dependent variables and quantities.</li> </ul>	<ul style="list-style-type: none"> <li>Dependent quantity</li> <li>Independent quantity</li> <li>Independent variable</li> <li>Dependent variable</li> </ul>
<b>Learning Individually with MATHia or Skills Practice</b>			6.2B 6.6A 6.6B 6.6C 6.9A 6.9B 6.10A 6.10B	<p>In the MATHia software, students solve one-step equations in the form <math>p + x = q</math> and <math>px = q</math>. They determine which given values for a variable are solutions to an equation. Students represent simple inequalities on a number line and identify solutions. They use substitution to identify solutions to inequalities. Students interpret the model of a one-step linear equation in the context of a scenario. They use multiple representations to represent problem scenarios.</p>	



# 10 Signed Numbers

This chapter develops the concept of negative numbers and moves toward the broader understanding of the rational number system including order and absolute value.

**Standards:** 6.2A, 6.2B, 6.2C, 6.2D, 6.3C, 6.6C

Lesson	Lesson Title / Subtitle	Lesson Subtitle	TEKS	Key Math Objectives	Key Terms
10.1	<b>What, Me Negative?</b>	Introduction to Negative Numbers	6.2A 6.2B 6.2C 6.2D	<ul style="list-style-type: none"> <li>Plot integers on a number line.</li> <li>Solve problems where quantities increase and decrease.</li> <li>Calculate the differences between quantities.</li> <li>Represent quantities using positive and negative numbers.</li> </ul>	<ul style="list-style-type: none"> <li>Negative numbers</li> <li>Infinity</li> <li>Negative sign</li> <li>Positive sign</li> <li>Integers</li> <li>Ellipses</li> </ul>
10.2	<b>Number Sets</b>	Number Systems	6.2A 6.2B 6.2C	<ul style="list-style-type: none"> <li>Classify sets of numbers.</li> </ul>	<ul style="list-style-type: none"> <li>Fractional numbers</li> <li>Rational numbers</li> <li>Density Property</li> </ul>
10.3	<b>Ordering and Absolute Value</b>	Ordering the Rational Numbers	6.2B 6.2C 6.2D	<ul style="list-style-type: none"> <li>Order rational numbers.</li> <li>Define the absolute value of a number.</li> <li>Calculate the absolute value of a number.</li> </ul>	<ul style="list-style-type: none"> <li>Absolute value</li> </ul>
10.4	<b>Elevators, Making Money Redux and Water Level</b>	Solving Problems with Rational Numbers	6.2B 6.3C	<ul style="list-style-type: none"> <li>Solve problems using rational numbers.</li> <li>Use positive and negative numbers to represent quantities in real-world situations.</li> </ul>	
<b>Learning Individually with MATHia or Skills Practice</b>			6.2A 6.2B 6.2C 6.6C	In the MATHia software, students explore numbers and their opposites on number lines and develop an understanding of absolute value as the distance of a number from 0. They identify the number sets to which rational numbers belong. Students graph simple inequalities involving rational numbers on number lines.	

# 11 Addition and Subtraction with Rational Numbers

This chapter uses models to develop a conceptual understanding of addition and subtraction with respect to the set of integers. These strategies are formalized through questioning, and then extended to operations with respect to the set of rational numbers.

**Standards:** 6.2B, 6.2C, 6.3C, 6.3D, 6.6A, 6.6B, 6.6C, 6.7B, 6.7D

Lesson	Lesson Title / Subtitle	Lesson Subtitle	TEKS	Key Math Objectives	Key Terms
11.1	<b>Math Football</b>	Using Models to Understand Integers	6.3C	<ul style="list-style-type: none"> <li>• Represent numbers as positive and negative integers.</li> <li>• Use a model to represent the sum of a positive and a negative integer.</li> </ul>	
11.2	<b>Walk the Line</b>	Adding Integers, Part I	6.2B 6.2C 6.3C 6.3D	<ul style="list-style-type: none"> <li>• Model the addition of integers on a number line.</li> <li>• Develop a rule for adding integers.</li> </ul>	
11.3	<b>Two-Color Counters</b>	Adding Integers, Part II	6.3C 6.3D 6.6A 6.6B 6.6C 6.7D	<ul style="list-style-type: none"> <li>• Model the addition of integers using two-color counters.</li> <li>• Develop a rule for adding integers.</li> </ul>	• Additive inverses
11.4	<b>What's the Difference?</b>	Subtracting Integers	6.2B 6.2C 6.3C 6.3D 6.9C	<ul style="list-style-type: none"> <li>• Model subtraction of integers using two-color counters.</li> <li>• Model subtraction of integers on a number line.</li> <li>• Develop a rule for subtracting integers.</li> </ul>	• Zero pair
11.5	<b>What Do We Do Now?</b>	Adding and Subtracting Rational Numbers	6.3C 6.6A 6.7B	<ul style="list-style-type: none"> <li>• Add and subtract rational numbers.</li> </ul>	
<b>Learning Individually with MATHia or Skills Practice</b>			6.2B 6.3C	In the MATHia software, students describe situations in which opposite quantities combine to make 0. They identify $p + q$ as the number located a distance $ q $ from $p$ . Students add and subtract integers using a number line and an algorithm.	

# 12 Multiplication and Division with Rational Numbers

This chapter use models to develop a conceptual understanding of multiplication and division with respect to the set of integers. These strategies are formalized, and then extended to operations with respect to the set of rational numbers.

**Standards:** 6.3C, 6.3D, 6.3E, 6.4G, 6.7D

Lesson	Lesson Title / Subtitle	Lesson Subtitle	TEKS	Key Math Objectives	Key Terms
12.1	<b>Equal Groups</b>	Multiplying and Dividing Integers	6.3C 6.3D	<ul style="list-style-type: none"> <li>• Multiply integers.</li> <li>• Divide integers.</li> </ul>	
12.2	<b>What's My Product or Quotient?</b>	Multiplying and Dividing Rational Numbers	6.3C 6.3D	<ul style="list-style-type: none"> <li>• Multiply rational numbers.</li> <li>• Divide rational numbers.</li> </ul>	
12.3	<b>Properties Schmoperties</b>	Simplifying Arithmetic Expressions with Rational Numbers	6.3E	<ul style="list-style-type: none"> <li>• Simplify arithmetic expressions using the number properties and the order of operations.</li> </ul>	
12.4	<b>Building a Wright Brothers' Flyer</b>	Evaluating Expressions with Rational Numbers	6.3E	<ul style="list-style-type: none"> <li>• Model a situation with an expression using rational numbers.</li> <li>• Evaluate rational expressions.</li> </ul>	<ul style="list-style-type: none"> <li>• Properties of Inequalities for Multiplication and Division, when <math>c &lt; 0</math></li> </ul>
12.5	<b>Repeat or Not? That Is the Question!</b>	Exact Decimal Representations of Fractions	6.4G	<ul style="list-style-type: none"> <li>• Use decimals and fractions to evaluate arithmetic expressions.</li> <li>• Convert fractions to decimals.</li> <li>• Represent fractions as repeating decimals.</li> </ul>	<ul style="list-style-type: none"> <li>• Terminating decimals</li> <li>• Non-terminating decimals</li> <li>• Repeating decimals</li> <li>• Non-repeating decimals</li> <li>• Bar notation</li> </ul>
<b>Learning Individually with MATHia or Skills Practice</b>			6.3C 6.3D 6.7D	In the MATHia software, students use fact families to explore dividing integers. They operate with rational numbers to solve mathematical and real-world problems. Students rewrite algebraic expressions involving integer coefficients using the Distributive Property and Order of Operations.	

# 13 The Cartesian Coordinate Plane

This chapter extends plotting points to four quadrants and includes an introduction to coordinate geometry. Representations of algebraic expressions and equations are used to solve real-world problems.

**Standards:** 6.6A, 6.6C, 6.9A, 6.9C, 6.11A

Lesson	Lesson Title / Subtitle	Lesson Subtitle	TEKS	Key Math Objectives	Key Terms
13.1	<b>Four Quadrants</b>	Extending the Coordinate Plane	6.6A 6.11A	<ul style="list-style-type: none"> <li>Extend the coordinate system to four quadrants</li> <li>Name points on the plane.</li> <li>Graph ordered pairs on the Cartesian Coordinate Plane.</li> <li>Calculate the distance between points on the coordinate plane which are on the same vertical or horizontal line.</li> </ul>	<ul style="list-style-type: none"> <li>x-axis</li> <li>y-axis</li> <li>Origin</li> <li>Quadrant</li> <li>Ordered pair</li> <li>Cartesian Coordinate Plane</li> </ul>
13.2	<b>Geometry and Graphs</b>	Graphing Geometric Figures	6.11A	<ul style="list-style-type: none"> <li>Plot points to form geometric figures.</li> <li>Identify points on the coordinate plane to form geometric figures.</li> <li>Identify geometric figures plotted on the coordinate plane.</li> </ul>	
13.3	<b>Water, Water Everywhere</b>	Solving Problems with Multiple Representations	6.9A 6.11A	<ul style="list-style-type: none"> <li>Analyze and solve problems with multiple representations.</li> </ul>	
13.4	<b>Every Graph Tells a Story</b>	Interpreting Graphs	6.6C 6.9C	<ul style="list-style-type: none"> <li>Interpret information about a situation from a graphical representation.</li> <li>Identify the graphs of situations.</li> </ul>	
<b>Learning Individually with MATHia or Skills Practice</b>			6.11	In the MATHia software, students plot and interpret ordered pairs in all quadrants to answer questions in mathematical and real-world contexts. They create tables of values, write algebraic expressions with one operation, and create graphs to represent and answer questions about problem scenarios.	

# 14 Financial Literacy: Accounts, Credit, and Careers

Standards: 6.14A, 6.14B, 6.14C, 6.14D, 6.14E, 6.14F, 6.14G, 6.14H

Lesson	Lesson Title / Subtitle	Lesson Subtitle	TEKS	Key Math Objectives	Key Terms
14.1	<b>Knowledge You Can Bank On</b>	Checking Accounts	6.14A 6.14C	<ul style="list-style-type: none"> <li>Analyze the features of a checking account.</li> <li>Write a check.</li> <li>Balance a checkbook.</li> <li>Determine money earned on an interest-bearing checking account.</li> <li>Compare checking account options.</li> </ul>	<ul style="list-style-type: none"> <li>Checking account</li> <li>Check</li> <li>Statement</li> <li>Account balance</li> <li>Deposit</li> <li>Withdrawal</li> <li>Debit</li> <li>Transfer</li> <li>Overdraft</li> <li>Annual Percentage Yield (APY)</li> </ul>
14.2	<b>You Are a Real Card!</b>	Debit Cards vs. Credit Cards	6.14A 6.14B	<ul style="list-style-type: none"> <li>Analyze the features of a debit card.</li> <li>Analyze the features of a credit card.</li> <li>Distinguish between debit cards and credit cards.</li> </ul>	<ul style="list-style-type: none"> <li>Debit card</li> <li>Credit card</li> <li>Interest</li> <li>Interest rate</li> </ul>
14.3	<b>Financial Report Card</b>	Understanding Credit Reports	6.14D 6.14E 6.14F	<ul style="list-style-type: none"> <li>Describe the features of a credit report.</li> <li>Describe the importance of a good credit score.</li> <li>Determine the significance of a credit report to borrowers and lenders.</li> </ul>	<ul style="list-style-type: none"> <li>Credit report</li> <li>Credit history</li> <li>Credit score</li> <li>Circle graph</li> </ul>
14.4	<b>The Possibilities Are Endless</b>	Career Exploration	6.14G 6.14H	<ul style="list-style-type: none"> <li>Compare the education and training required for various careers.</li> <li>Analyze the impact that education has on career possibilities.</li> </ul>	<ul style="list-style-type: none"> <li>Post-secondary education</li> <li>Associate's degree</li> <li>Undergraduate degree</li> <li>Master's degree</li> <li>Vocational school</li> <li>Student loan</li> </ul>
14.5	<b>Student Aid 101</b>	Paying for College	6.14G	<ul style="list-style-type: none"> <li>Explore various methods of paying for post-secondary education.</li> <li>Determine the differences among grants, scholarships, loans, and work-study programs.</li> <li>Compare the salaries of various occupations.</li> </ul>	<ul style="list-style-type: none"> <li>Tuition</li> <li>Grant</li> <li>Scholarship</li> <li>Work-study program</li> <li>Public school</li> <li>Private school</li> </ul>

# 15 Units of Measure

This chapter extends ratio reasoning to convert measurement units within and between Customary and Metric systems.

**Standards:** 6.4H, 6.5A

Lesson	Lesson Title / Subtitle	Lesson Subtitle	TEKS	Key Math Objectives	Key Terms
15.1	<b>Customary to Whom?</b>	Customary Measurement	6.4H	<ul style="list-style-type: none"> <li>• Select appropriate types of customary measurement.</li> <li>• Select appropriate units for each type of customary measurement.</li> <li>• Convert from one unit of customary measurement to another.</li> </ul>	<ul style="list-style-type: none"> <li>• Standard units of measure</li> <li>• Measurement</li> <li>• Convert</li> </ul>
15.2	<b>It's All Based on Powers of 10!</b>	Metric Measurement	6.4H	<ul style="list-style-type: none"> <li>• Select appropriate types of metric measurement.</li> <li>• Select appropriate units for each type of metric measurement.</li> <li>• Convert from one metric unit to another.</li> </ul>	<ul style="list-style-type: none"> <li>• Meter (m)</li> <li>• Gram (g)</li> <li>• Liter (L)</li> <li>• Prefix</li> </ul>
15.3	<b>They're Saying the Same Thing?</b>	Moving Between Measurement Systems	6.5A	<ul style="list-style-type: none"> <li>• Select appropriate types of measurement between customary and metric measurement systems.</li> <li>• Select appropriate units for each type of measurement.</li> <li>• Convert from one unit to another in different systems.</li> </ul>	
15.4	<b>Is That Appropriate?</b>	Choose Appropriate Measures	6.5A	<ul style="list-style-type: none"> <li>• Select appropriate types of measurement.</li> <li>• Select appropriate units for each type of measurement.</li> <li>• Determine approximate measurement for a variety of objects.</li> <li>• Determine appropriate measures for area, perimeter, and volume.</li> </ul>	
<b>Learning Individually with MATHia or Skills Practice</b>			6.4H	In the MATHia software, students use ratios and dimensional analysis to convert measurements within the Customary and metric measurement systems.	

# 16 Triangles

This chapter investigates the conditions that determine unique triangles.

**Standards:** 6.8A, 6.8D, 6.10A

Lesson	Lesson Title / Subtitle	Lesson Subtitle	TEKS	Key Math Objectives	Key Terms
16.1	<b>The Language of Geometry</b>	Sketching, Drawing, Naming, and Sorting Basic Geometric Figures	6.8A	<ul style="list-style-type: none"> <li>Classify geometric figures as polygons, triangles, quadrilaterals, pentagons, hexagons, heptagons, octagons, nonagons, and decagons.</li> <li>Define consecutive sides and opposite sides.</li> <li>Sort polygons into categories.</li> </ul>	<ul style="list-style-type: none"> <li>Protractor</li> <li>Compass</li> <li>Straightedge</li> <li>Sketch</li> <li>Draw</li> <li>Construct</li> <li>Triangle</li> <li>Equilateral triangle</li> <li>Isosceles triangle</li> <li>Scalene triangle</li> <li>Equiangular triangle</li> <li>Acute triangle</li> <li>Right triangle</li> <li>Obtuse triangle</li> <li>Quadrilateral</li> <li>Opposite sides</li> <li>Consecutive sides</li> <li>Square</li> <li>Rectangle</li> <li>Rhombus</li> <li>Parallelogram</li> <li>Kite</li> <li>Trapezoid</li> <li>Isosceles trapezoid</li> <li>Polygon</li> <li>Regular polygon</li> <li>Irregular polygon</li> <li>Pentagon</li> <li>Hexagon</li> <li>Heptagon</li> <li>Octagon</li> <li>Nonagon</li> <li>Decagon</li> </ul>
16.2	<b>Pulling a One-Eighty!</b>	Triangle Sum, Exterior Angle, and Exterior Angle Inequality Theorems	6.8A 6.8D 6.10A	<ul style="list-style-type: none"> <li>Prove the Triangle Sum Theorem.</li> <li>Explore the relationship between the interior angle measures and the side lengths of a triangle.</li> <li>Identify the remote interior angles of a triangle.</li> <li>Identify the exterior angle of a triangle.</li> <li>Explore the relationship between the exterior angle measures and two remote interior angles of a triangle.</li> <li>Prove the Exterior Angle Theorem.</li> <li>Prove the Exterior Angle Inequality Theorem.</li> </ul>	<ul style="list-style-type: none"> <li>Triangle Sum Theorem</li> <li>Remote interior angles of a triangle</li> <li>Exterior Angle Theorem</li> <li>Exterior Angle Inequality Theorem</li> </ul>
16.3	<b>Triangle Construction 1</b>	Constructing Triangles	6.8A	<ul style="list-style-type: none"> <li>Construct triangles to determine uniqueness.</li> </ul>	
16.4	<b>Triangle Construction 2</b>	Congruent Figures and Constructing Congruent Triangles	6.8A	<ul style="list-style-type: none"> <li>Define congruent figures.</li> <li>Determine whether figures are congruent.</li> <li>Determine whether triangles are congruent.</li> <li>Construct congruent triangles.</li> </ul>	<ul style="list-style-type: none"> <li>Geometric figures</li> <li>Congruent geometric figures</li> <li>Corresponding sides</li> <li>Corresponding angles</li> <li>Included angle</li> <li>Included side</li> </ul>

Lesson	Lesson Title / Subtitle	Lesson Subtitle	TEKS	Key Math Objectives	Key Terms
16.5	<b>Pasta Anyone?</b>	Triangle Inequality Theorem	6.8A 6.8D	<ul style="list-style-type: none"> <li>• Explore the relationships between the side lengths of a triangle and the measures of its interior angles.</li> <li>• Prove the Triangle Inequality Theorem.</li> </ul>	<ul style="list-style-type: none"> <li>• Triangle Inequality Theorem</li> </ul>
<b>Learning Individually with MATHia or Skills Practice</b>			6.8A	In the MATHia software, students triangle theorems to determine unknown angle measures on the interior and exterior of triangles.	



# 17 Area

This chapter connects the knowledge related to the areas of rectangles and squares to determine the areas of triangles, parallelograms, trapezoids, and rhombi. Formulas are used to solve real-world problems. Volume of rectangular prisms is introduced.

**Standards:** 6.3E, 6.5A, 6.5E, 6.8B, 6.8C, 6.8D, 6.10A

Lesson	Lesson Title / Subtitle	Lesson Subtitle	TEKS	Key Math Objectives	Key Terms
17.1	<b>Bigger and Smaller</b>	Scale Drawings, Scale Models, and Scale Factors	6.3E 6.5A 6.5E	<ul style="list-style-type: none"> <li>Use scale models to calculate measurements.</li> <li>Use scale factors to enlarge and shrink models.</li> </ul>	<ul style="list-style-type: none"> <li>Scale factor</li> </ul>
17.2	<b>Weaving a Rug</b>	Area and Perimeter of Rectangles and Squares	6.8B 6.8C 6.8D 6.10A	<ul style="list-style-type: none"> <li>Calculate the area of rectangles and squares.</li> <li>Calculate the perimeter of rectangles and squares.</li> <li>Write a formula for the perimeter and area of a rectangle and a square.</li> <li>Determine the effect of altering the dimensions of a rectangle or a square on the perimeter and area.</li> <li>Calculate the area of composite figures.</li> </ul>	
17.3	<b>Boundary Lines</b>	Area of Parallelograms and Triangles	6.8B 6.8C 6.8D 6.10A	<ul style="list-style-type: none"> <li>Calculate the area of parallelograms and triangles.</li> <li>Write a formula for the area of a parallelogram and a triangle.</li> <li>Calculate the area of composite figures.</li> </ul>	<ul style="list-style-type: none"> <li>Altitude of a parallelogram</li> <li>Height of a parallelogram</li> <li>Altitude of a triangle</li> <li>Height of a triangle</li> </ul>
17.4	<b>The Keystone Effect</b>	Area of Trapezoids	6.8B 6.8C 6.8D	<ul style="list-style-type: none"> <li>Calculate the area of trapezoids.</li> <li>Write a formula for the area of a trapezoid.</li> <li>Calculate the area of composite figures.</li> </ul>	<ul style="list-style-type: none"> <li>Bases of a trapezoid</li> <li>Legs of a trapezoid</li> <li>Altitude of a trapezoid</li> <li>Height of a trapezoid</li> </ul>
17.5	<b>Go Fly a Kite</b>	Area of Rhombi and Kites	6.10A	<ul style="list-style-type: none"> <li>Calculate the area of rhombi and kites.</li> <li>Use formulas to compute the area of rhombi and kites.</li> <li>Calculate the area of composite figures.</li> </ul>	
17.6	<b>Street Signs</b>	Area of Regular Polygons	6.8B 6.8C 6.8D	<ul style="list-style-type: none"> <li>Calculate the area of regular polygons.</li> <li>Write a formula for the area of a regular polygon.</li> <li>Calculate the area of composite figures.</li> </ul>	<ul style="list-style-type: none"> <li>Congruent polygons</li> <li>Apothem</li> </ul>

Lesson	Lesson Title / Subtitle	Lesson Subtitle	TEKS	Key Math Objectives	Key Terms
17.7	<b>Backyard Barbecue, Anyone?</b>	Volume of Rectangular Prisms	6.8D	<ul style="list-style-type: none"> <li>• Calculate the volume of rectangular prisms.</li> <li>• Use rectangular prisms to calculate the volume of composite solids.</li> </ul>	
<b>Learning Individually with MATHia or Skills Practice</b>			6.8B 6.8C 6.8D	In the MATHia software, students calculate the areas of parallelograms, trapezoids, triangles, and composite figures in mathematical and real-world situations. They determine the volume of right prisms, including prisms with fractional edge lengths.	

# 18 Collecting and Displaying Data

This chapter develops the understanding of statistics and variability. Various representations are used to summarize numerical data sets.

**Standards:** 6.12A, 6.12B, 6.12D, 6.13A

Lesson	Lesson Title / Subtitle	Lesson Subtitle	TEKS	Key Math Objectives	Key Terms
18.1	<b>Why Do We Use Statistics?</b>	Designing Statistical Questions	6.13B	<ul style="list-style-type: none"> <li>Learn about statistical questions.</li> <li>Recognize statistical questions and anticipate variability in data related to the question.</li> <li>Design statistical questions that can be answered by a given data set.</li> <li>Differentiate between surveys and experiments.</li> </ul>	<ul style="list-style-type: none"> <li>Data</li> <li>Statistical question</li> <li>Population</li> <li>Sample</li> <li>Data analysis</li> <li>Parameter</li> <li>Statistic</li> <li>Survey</li> <li>Experiment</li> </ul>
18.2	<b>Dealing with Data</b>	Collecting, Displaying, and Analyzing Data	6.12A 6.12B 6.12D 6.13A	<ul style="list-style-type: none"> <li>Discuss the different types of data that can be collected, displayed, and analyzed.</li> <li>Determine how to select an appropriate graph to display different types of data.</li> <li>Organize data into single, double, or stacked bar graphs.</li> <li>Analyze data and interpret results from single, double, or stacked bar graphs and circle graphs.</li> </ul>	<ul style="list-style-type: none"> <li>Categorical data</li> <li>Quantitative data</li> <li>Discrete data</li> <li>Continuous data</li> <li>Bar graph</li> <li>Frequency</li> <li>Double bar graph</li> <li>Key</li> <li>Stacked bar graph</li> <li>Circle graph</li> </ul>
18.3	<b>At the Olympics</b>	Line Plots and Stem-and-Leaf Plots	6.12A 6.13A	<ul style="list-style-type: none"> <li>Organize data and interpret dot plots.</li> <li>Organize data and interpret stem-and-leaf plots.</li> </ul>	<ul style="list-style-type: none"> <li>Dot plot</li> <li>Distribution</li> <li>Symmetric</li> <li>Skewed right</li> <li>Skewed left</li> <li>Clusters</li> <li>Gaps</li> <li>Stem-and-leaf plot</li> <li>Side-by-side stem-and-leaf plot</li> </ul>
18.4	<b>Building Up</b>	Using Histograms	6.12A 6.12D 6.13A	<ul style="list-style-type: none"> <li>Organize data into a histogram.</li> <li>Analyze data presented in a histogram.</li> </ul>	<ul style="list-style-type: none"> <li>Histogram</li> <li>Frequency table</li> </ul>
18.5	<b>Analyze This!</b>	Designing and Implementing an Experiment	6.13A	<ul style="list-style-type: none"> <li>Analyze data recorded during an experiment and answer questions that were posed at the beginning of the experiment.</li> </ul>	

Lesson	Lesson Title / Subtitle	Lesson Subtitle	TEKS	Key Math Objectives	Key Terms
			6.12A 6.12B 6.13A	In the MATHia software, students are introduced to the statistical process and statistical questions. They interpret, create, and analyze stem-and-leaf plots, dot plots, and histograms. Students then summarize and describe the displays according to shape and numerical summaries.	

# 19 Analyzing and Interpreting Data

This chapter reviews the measures of center with an emphasis on which measure is the most appropriate to describe a data set. Box-and-whisker plots are used to display numerical data and investigate variation. Graphing calculators and spreadsheets are used to determine mean absolute deviation and to construct box-and-whisker plots.

**Standards:** 6.12A, 6.12B, 6.12C, 6.12D, 6.13A

Lesson	Lesson Title / Subtitle	Lesson Subtitle	TEKS	Key Math Objectives	Key Terms
19.1	<b>In the Middle</b>	Analyzing Data Using Measures of Center	6.12B 6.12C 6.12D	<ul style="list-style-type: none"> <li>Review the meaning of mean, median, and mode.</li> <li>Calculate and interpret the mean, the median, and the mode for a set of data.</li> </ul>	<ul style="list-style-type: none"> <li>Measure of center</li> <li>Mode</li> <li>Median</li> <li>Balance point</li> <li>Mean</li> </ul>
19.2	<b>Which Measure of Center Should I Use?</b>	Determining When to Use the Mean, Median, or Mode	6.12B 6.12C 6.12D	<ul style="list-style-type: none"> <li>Calculate the mean, median, and mode from a graphical display of data.</li> <li>Determine when to use the mean, median, or mode to describe a data set.</li> </ul>	
19.3	<b>Five Number Summary</b>	Analyzing Data Using the Five Number Summary	6.12A 6.12C 6.12D 6.13A	<ul style="list-style-type: none"> <li>Calculate and interpret the range, quartiles, and interquartile range as measures of variability for a data set.</li> <li>Calculate and interpret the five number summary as a measure of variability for a data set.</li> </ul>	<ul style="list-style-type: none"> <li>Range</li> <li>Quartiles (Q)</li> <li>Interquartile range (IQR)</li> <li>Five number summary</li> </ul>
19.4	<b>Box It Up!</b>	Displaying and Analyzing Data Using Box-and-Whisker Plots	6.12A 6.12B 6.12C 6.12D	<ul style="list-style-type: none"> <li>Construct and interpret a box-and-whisker plot for a data set.</li> <li>Determine if a data set has outliers, and discuss how outliers affect the display and analysis of the data.</li> </ul>	<ul style="list-style-type: none"> <li>Box-and-whisker plot</li> <li>Outlier</li> </ul>
<b>Learning Individually with MATHia or Skills Practice</b>			6.12A 6.12C 6.13A	In the MATHia software, students calculate, compare, and interpret mean, median, mode, and range for a variety of data sets. They create box-and-whisker plots and use them to understand the relationship between the shape of the display and the spread of the data set.	