

Options EHS Basic Math 1-OR		Scope and Sequence
Unit	Lesson	Objectives
<b>Reasoning about Ratios: Part One</b>		
	Adding and Subtracting Fractions	<p>Use visual representations to add and subtract fractions.</p> <p>Estimate sums and differences of fractions.</p> <p>Describe real-world contexts for adding and subtracting fractions.</p>
	Rational Numbers	<p>Represent positive and negative rational numbers on vertical and horizontal number lines.</p> <p>Write a rational number as a decimal that eventually terminates or repeats.</p> <p>Describe real-world situations that can be represented by rational numbers, including where opposite quantities combine to make 0.</p>
	Prime Numbers and Prime Factorization	<p>List the factors of a number.</p> <p>Identify a number as prime or composite.</p> <p>Represent a number as the product of its prime factors, using exponents to show repeated factors.</p>
	Describing Part-to-Part Relationships	<p>Describe ratio relationships between two quantities using informal language.</p> <p>Use models to represent relationships between quantities.</p> <p>Analyze how a change in a quantity affects a part-to-part relationship.</p>
	Using Ratio Notation	<p>Use the notation of ratio language to describe relationships between two quantities.</p>
	Equivalent Ratios	<p>Analyze patterns in a table of equivalent ratios.</p>

**Unit Lesson****Objectives**

Find missing values in a table using ratio reasoning.

Understanding Unit Rates

Find unit rates.

Ratios in Real-World Situations

Compare ratios in real-world contexts.

Plotting Equivalent Ratios

Plot tables of equivalent ratios on the coordinate plane.

Identify patterns of plots of equivalent ratios.

Analyzing Equivalent Ratios in the Coordinate Plane

Analyze the graph of equivalent ratios plotted on the coordinate plane.

Use the language of ratios to explain the graph of equivalent ratios in real-world contexts.

Unit Test

**Reasoning about Ratios: Part Two**

Measurements in the Customary System

Convert units of measurement in the customary system.

Solve real-world problems by converting customary measurement units.

Measurements in the Metric System

Convert units of measurement in the metric system.

Solve real-world problems by converting metric measurement units.

Understanding Speed

Find speed given distance and time.

Convert measures of speed within a system.

**Unit Lesson****Objectives**

Solving Speed Problems

Find time given distance and speed.

Find distance given time and speed.

Compare speeds.

Unit Pricing

Find unit prices.

Solve unit rate problems involving unit pricing.

Other Rate Problems

Find unit rates.

Solve real-world problems using unit rates.

Unit Test

**Operations**

Factors and Multiples

Determine the greatest common factor of two numbers.

Determine the least common multiple of two numbers.

Apply greatest common factors and least common multiples to solve real-world problems.

The Distributive Property

Use the distributive property to generate equivalent expressions.

Dividing Whole Numbers

Divide whole numbers.

Write remainders as terminating or repeating decimals.

Dividing Decimals

**Unit Lesson****Objectives**

Divide whole numbers by decimals.

Divide decimals by decimals.

Use estimation to determine reasonableness.

Real-World Decimal Problems with Multiplication and Division

Solve real-world problems using decimal multiplication.

Solve real-world problems using decimal division.

Fraction Multiplication

Multiply fractions using models.

Multiply fractions using the standard algorithm.

Estimate solutions and solve real-world single and multistep problems involving fraction multiplication.

Dividing a Fraction by a Fraction

Use models to divide a fraction by a fraction.

Finding a Rule for Dividing Fractions

Use the standard algorithm to divide fractions.

Fraction Multiplication and Division

Solve real-world problems using fraction multiplication or division.

Unit Test

**Percent**

Understanding Percent

Represent a portion of a set with a ratio.

Translate ratios of part: whole and part/whole as percents.

Use models to illustrate the meaning of percents.

**Unit Lesson****Objectives**

Compare ratios and percents of sets with different base units.

Using Equivalent Ratios to Find Percents

Represent percent problems using equivalent ratios.

Use patterns in equivalent ratios to find the percent of a whole.

Using Equivalent Ratios to Find a Whole

Represent percent problems using equivalent ratios.

Use patterns in equivalent ratios to find the whole, given the percent.

Unit Test

**Expressions**

Numerical Expressions with Exponents

Write numerical expressions including expressions containing whole number exponents.

Evaluate numerical expressions including expressions containing whole number exponents.

Expressions with Unknowns

Read and write algebraic expressions.

Use algebraic expressions to model real-world situations involving addition.

Use algebraic expressions to model real-world situations involving subtraction.

Expressions to Represent Multiplication and Division Problems

Use algebraic expressions to model real-world situations involving multiplication.

Use algebraic expressions to model real-world situations involving division.

Writing and Evaluating Expressions

Write algebraic expressions containing one operation.

Evaluate algebraic expressions containing one operation.

Unit	Lesson	Objectives
	Expressions with More Than One Operation	Write algebraic expressions containing more than one operation. Use the order of operations to evaluate algebraic expressions containing more than one operation.
	Expressions with and without Parentheses	Write algebraic expressions containing more than one operation, with and without parentheses. Use the order of operations to evaluate algebraic expressions containing more than one operation, with and without parentheses.
	Equivalent Expressions	Generate equivalent expressions using the commutative and associative properties. Use substitution to determine if two expressions are equivalent.
	Equivalent Expressions and the Distributive Property	Generate equivalent expressions using the distributive property. Use substitution to determine if two expressions are equivalent.
	Determining Equivalent Expressions	Determine whether two expressions are equivalent. Explain why two expressions are equivalent or not equivalent.
	Unit Test	