

Options EHS Basic Math		Scope and Sequence
Unit	Lesson	Objectives
Diagnostic PreTest		
TEST		
Whole Numbers and Operations		
Multiplying with Powers of 10		
		Interpret the change in position of a digit as a number is multiplied by a power of 10.
		Multiply whole numbers by powers of 10 using place value strategies.
		Use strategies for mentally multiplying by a power of 10.
		Real-World Application: Multiply a number with a power of 10 to represent a variety of real-world situations.
Dividing with Powers of 10		
		Interpret the change in position of a digit as a change of value by a power of 10 using division.
		Divide whole numbers by powers of 10 by thinking about the change to place values.
		Use strategies for mentally dividing by a power of 10.
		Real-World Application: Divide a number by a power of 10 to represent a variety of real-world situations.
Multi-Digit Multiplication		
		Apply the standard algorithm for multiplying multi-digit whole numbers.
		Use estimation strategies to predict and check products.
		Use various grouping strategies to multiply multi-digit numbers.
		Real-World Application: Multiply multi-digit numbers that model real-world situations.
Multi-Digit Division		
		Apply the standard algorithm for dividing multi-digit whole numbers.
		Use estimation strategies to predict and check quotients.
		Use place value strategies to divide multi-digit numbers.

Options EHS Basic Math		Scope and Sequence
Unit	Lesson	Objectives
		Real-World Application: Divide multi-digit numbers that model real-world situations.
	Multi-Digit Arithmetic: Comparing the Four Operations	
		Correctly use place value in the standard algorithms for the four basic mathematical operations.
		Relate and/or contrast the standard algorithms for the pairings of $+/ -$, \times / \div , $\pm / \times \div$, and use their relationships to check answers.
		Real-World Application: Solve one-step real-world problems using any of the four operations and whole numbers.
	Interpreting and Simplifying Multistep Expressions	
		Order the operations for solving a multistep problem.
		Evaluate expressions with multiple operations, including parentheses and brackets.
		Real-World Application: Solve real-world problems involving multistep operations, including identifying expressions that model the problem.
	Using a Calculator Appropriately and Strategically	
		Use a calculator to evaluate whole-number expressions without variables, including clearing the calculator.
		Use order of operations in the calculator entries of multistep problems.
		Assess the reasonableness of calculator output using mental computation, estimation strategies, and rounding.
		Real-World Application: Use a calculator to solve real-world problems.
	Perimeter, Area, and Volume: Concepts and Units	
		Express perimeter, area, and volume using measurements such as units, square units, and cubic units.
		Measure length, perimeter, area, and volume using visual models of rectangles and rectangular solids by counting units.
		Real-World Application: Determine which kind of measurement is appropriate for a given real-world situation.

Options EHS Basic Math		Scope and Sequence
Unit	Lesson	Objectives
	Perimeter, Area, and Volume: Calculations	<p>Calculate perimeter, area, and volume of rectangles and rectangular solids using formulas.</p> <p>Determine the perimeter, area, or missing dimension of an irregular figure.</p> <p>Real-World Application: Determine the perimeter, area, and volume of real-world objects, including combining the perimeters and areas of objects comprised of multiple rectangles.</p>
Fractions		
	Using Equivalent Fractions to Add and Subtract Fractions	<p>Use visual representations to add and subtract fractions with denominators that are different but compatible (e.g., $\frac{5}{6} - \frac{1}{2}$, which can be shown as $\frac{2}{6}$ visually; the difference shows that $\frac{5}{6}$ is $\frac{2}{6}$ greater than $\frac{1}{2}$).</p> <p>Add and subtract two fractions with different denominators.</p> <p>Real-World Application: Find common denominators to add or subtract different parts of inches and feet.</p>
	Multiplying a Fraction by a Whole Number	<p>Interpret $n \times (\frac{1}{b})$ as the sum of $\frac{1}{b} + \frac{1}{b} + \dots + \frac{1}{b}$ (n terms); extend to $n \times \frac{a}{b}$ through repeated addition.</p> <p>Interpret $\frac{1}{b} \times n$ as $\frac{1}{b}$th of n by comparing to $1 \times n$, $2 \times n$, etc.</p> <p>Interpret $\frac{a}{b} \times n$ in terms of repeated addition, and compute products of the form $n \times \frac{a}{b}$ using that algorithm.</p> <p>Real-World Application: Solve real-world problems involving a fraction of a total using multiplication (both unit fractions and otherwise).</p>
	Multiplying a Fraction by a Fraction	<p>Explain the algorithm for multiplying $\frac{a}{b} \times \frac{c}{d}$ through visual representations.</p>

Options EHS Basic Math		Scope and Sequence
Unit	Lesson	Objectives
		Explain $a/b \times c/d$ as a fractional part of a fraction.
		Multiply fractions and mixed numbers.
		Real-World Application: Solve a variety of problems involving a fractional part of a fraction.
	Dividing a Fraction by a Whole Number	
		Divide a fraction by a whole number equal to the fraction's denominator in real-world situations.
		Divide a fraction by a whole number using an equivalent fraction in real-world situations.
	Using Visual Models in Fraction Division	
		Use models to divide a whole number by a whole number.
		Use models to divide a whole number by a fraction.
Decimals		
	Place Value and Decimals	
		Model decimals to hundredths.
		State the meaning of a given digit to thousandths (e.g., The 6 in 3.067 represents 6 hundredths).
		Convert decimals in expanded, standard, or word form to thousandths.
	Comparing Decimals	
		Create and justify the equivalence of multiple representations of decimal values.
		Use various place value strategies to compare decimal values.
		Real-World Application: Compare decimals using real-world measurements.
	Adding Decimals	
		Represent sums using manipulatives (base-10 blocks, money).
		Add decimals using a variety of strategies, including counting up and the standard algorithm.

Options EHS Basic Math		Scope and Sequence
Unit	Lesson	Objectives
		Identify and correct common errors of addition with decimals.
		Real-World Application: Use decimals to find real-world sums involving money.
	Subtracting Decimals	
		Represent differences using manipulatives (base 10 blocks, money).
		Subtract by place value using a variety of strategies including counting up and the standard algorithm.
		Real-World Application: Solve real-world problems involving subtraction of decimals.
	Multiplying and Dividing Decimals by a Power of 10	
		Multiply decimals by powers of 10.
		Divide by powers of 10.
		Real-World Application: Solve real-world problems involving multiplication and division by 10, 100, 1000, etc., and describe the relative sizes of the numbers.
	Multiplying a Whole Number by a Decimal Less than 1	
		Interpret $n \times d$ both as the sum of n copies of the decimal d and a portion of n to justify multiplying according to place value, regrouping as needed.
		Multiply whole numbers by decimals less than one.
		Use rounding to estimate a product before computing as a means of developing a sense of the size of the product.
		Real-World Application: Solve real-world problems involving a decimal part of a whole number using multiplication.
	Multiplying Decimals	
		Use rounding to estimate a product before computing as a means of developing a sense of the size of the product, including the position of the decimal point in the product.
		Multiply decimals to the hundredths place.
		Real-World Application: Solve real-world problems involving multiplication of decimals, especially those involving a decimal part of a decimal.

Options EHS Basic Math		Scope and Sequence
Unit	Lesson	Objectives
Rational Numbers		
	Equivalent Fractions and Decimals	
		Use equivalent fractions to convert between “friendly” fractions and decimals.
		Interpret a/b as the quotient of a and b in order to find a decimal equivalent for a/b by dividing.
		Find the fraction form of a decimal, including common repeating decimals.
		Real-World Application: Solve real-world problems by converting between fractions and decimals.
	Ordering, Adding, and Subtracting Fractions and Decimals	
		Use rounding, benchmarks, and common denominators to compare decimals to fractions and to estimate a sum or difference before or after computing.
		Order a list of fractions and decimals using various strategies, including a number line, common denominators, rounding, and benchmarks.
		Real-World Application: Solve real-world problems that involve a mixture of decimals and fractions.
	Word Problems: Multiplying by a Fraction and a Decimal	
		Estimate a product before computing as a means of developing a sense of the size of the product, or after to check for reasonableness.
		Multiply fractions and decimals.
		Real-World Application: Solve real-world problems involving multiplication of fractions and decimals.
	Using a Calculator with Fractions and Decimals	
		Use estimation and number sense strategies for checking the output of a calculator computation involving fractions and/or decimals (E.g., when you multiply 923 by 0.123, what should you expect the calculator to give you, approximately?).
		Identify reasons for using or not using a calculator on a given problem involving fractions and/or decimals.

Options EHS Basic Math	Scope and Sequence
------------------------	--------------------

Unit	Lesson	Objectives
------	--------	------------

Determine an error in a calculator entry dealing with order of operations involving fractions and/or decimals.

Diagnostic PostTest

TEST