



**1st Grading Cycle**

**Unit 1- Place Value: Whole Numbers & Decimals (16 days)**

- Place Value: Whole Numbers Up to Hundred Billions
- Place Value: Decimals to Hundredths
- Read, Write, Order/Compare Whole Numbers & Decimals
- Forms: Standard, Word & Expanded for Whole Numbers & Decimals
- Fraction/Decimal Equivalents
- Number Lines: Whole Numbers & Decimals
- Review Money

**TEKS:**

- 4.1 A,B,C,D,E,F,G  
4.2 A,B,C,E,F,G,H

**Unit 2- Adding & Subtracting Whole Numbers & Decimals: Include Perimeter, Rounding/Estimation (19 days)**

- Rounding/Estimation--utilize estimation strategies such as rounding or compatible numbers to determine reasonableness of a solution
- Add/Subtract Whole Numbers & Decimals to solve multi-step problems
- Add/Subtract decimals to find unknowns using strip diagrams and equations
- Equations with Variables: All Operations
- Perimeter- Use Formula

**TEKS:**

- 4.1 A,B,C,D,E,F,G  
4.2D  
4.4A  
4.5 A,C,D

Begin Multiplication Unit (4 days)

**2nd Grading Cycle**

**Unit 3- Multiplication: Include Area (16 days)**

- Multiply by Multiples of 10
- Arrays/Area Models through 15X15
- Two Digit X Two Digit-
- Up to Four Digit X One Digit
- Partial Products
- Properties of Multiplication
- Utilize estimation strategies such as rounding and compatible numbers to determine reasonableness of the solution
- Use multiplication strategies to solve multi-step problems

**TEKS:**

- 4.1 A,B,C,D,E,F,G  
4.4 B,C,D,G,H  
4.5 A,C,D

**Unit 4- Division (18 days)**

- Divide Up to 4 Digit Dividends With One Digit Divisors: Use Arrays, Area Models, partial quotient & Equations
- Interpret Remainders
- Utilize estimation strategies such as rounding and compatible numbers to determine reasonableness of the solution
- Use division strategies to solve multi-step problems

**TEKS:**

- 4.1 A,B,C,D,E,F,G  
4.4 E,F,G,H  
4.5 A

**Unit 5- Intro to Fractions (9 days)**

- Develop conceptual understanding of the relationship between fractions (less than or equal to one) and decimals through representations and comparisons

**3rd Grading Cycle**

**Unit 5- Fractions (11 days)**

- Fraction/Decimal Equivalents
- Improper Fractions/Mixed Numbers
- Addition & Subtraction of Fractions with Like Denominators using objects and pictorial models
- Decompose Fractions: By Showing Sums of Fractions
- Solve multi-step problems involving four operations using strip diagrams and equations with variables for unknown quantities

**TEKS:**

- 4.1 A,B,C,D,E,F,G  
4.2 G,H  
4.3 A,B,C,D,E,F,G  
4.5 A

**Unit 6- Measurement: (22 days)**

- Customary/Metric: Length, Weight & Mass, Capacity (Discuss Volume)
- Area
- Conversions using proportional relationships/reasoning
- Solve problems involving measurement using the four operations
- Review Time, Money, Temperature

**TEKS:**

- 4.1 A,B,C,D,E,F,G  
4.5 A,C,D  
4.8 A,B,C

**Unit 7- Personal Financial Literacy (4 days will vary)**

- Fixed and Variable Expenses
- Calculate Profit
- Advantages/Disadvantages of Various Saving Options
- Allocate a Weekly Allowance Among Spending, Saving (college included) & Sharing
- Keeping Money Safe
- Borrowing/Lending

**TEKS:**

- 4.1 A,B,C,D,E,F,G  
4.10 A,B,C,D,E

**4th Grading Cycle**

**Unit 8- Data Analysis (Dot Plot, Stem & Leaf Plots, Frequency Tables, Charts/Patterns) 12 days**

- Solve One & Two Step Problems Using Frequency Tables, Stem & Leaf Plots, Dot Plots, and Charts/Patterns: With Whole Numbers & Decimals

**TEKS:**

- 4.1 A,B,C,D,E,F,G  
4.5 A,B  
4.9 A,B

**Unit 9- Geometry (17 days)**

- Points, Lines, Line Segments, Rays, Angles, Perpendicular Lines, Parallel Lines, Intersecting Lines
- Symmetry
- Angles: Identify, Describe & Apply (Including Using a Protractor and benchmarks for estimation)
- 2D & 3D Shapes

**TEKS:**

- 4.1 A,B,C,D,E,F,G  
4.6 A,B,C,D  
4.7 A,B,C,D,E

**Unit 10: STAAR Review (5 days)**

- Retake Benchmark & Review TEKS needed based on data

### Essential Standards

4.2 B,G  
4.4 A  
4.5A,D

### Essential Questions

#### Unit 1

- What habits do good mathematicians have?
- What strategies do mathematicians use when solving problems?
- How does rounding help in determining if an answer is reasonable?
- How do you demonstrate the relationship between numbers, quantities, and place value for whole numbers to billions and decimals through hundredths?
- How would you determine which numbers are greater than or less than another number?
- How are place value patterns repeated in both whole numbers and decimals?

#### Unit 2

- How are addition & subtraction related? How can you prove this?
- How can properties of operations help us solve for unknowns?

### Essential Standards

4.4H  
4.5A,D

### Essential Questions

#### Unit 3

- What strategy did you use to solve the multiplication problem? Will it always work?
- How did you estimate to determine if your answer was reasonable? Why did you estimate that way?
- Which strategy did you use to solve the multiplication problem? Why did you use that strategy?
- How is the standard algorithm connected to the strategies you have used in the past?
- How does your strategy relate to the standard algorithm for multiplication?
- How would you represent a factor or a multiple of a number using arrays and the area model? How does this relate to multiplication?
- How are multiplication and division related?

#### Unit 4

- What strategy did you use to solve the division problem? Will it always work?
- How did you estimate to determine if your answer was reasonable? Why did you estimate that way?
- Which strategy did you use to solve the division problem? Why did you use that strategy?
- How is the standard algorithm connected to the strategies you have used in the past?
- How does your strategy relate to the standard algorithm for division?
- How are multiplication and division related?

### Essential Standards

4.2G  
4.3D,E  
4.5A,B,D  
4.9A

### Essential Questions

#### Unit 5

- How do we determine when to represent a quantity as a fraction?
- Why is it important to know the relationship between fractions and decimals?
- How do we determine when fractions and decimals are equivalent?

#### Unit 6

- What tool would you use to find weight/ mass/ volume/ capacity/ temperature (degrees Fahrenheit and Celsius) of this object in either metric or customary units?
- How are the units of measurement, within a standard system, related?
- What are the most effective ways to convert units of measurement?
- What happens to measurement when we change the units we used?
- Why do we need to convert between units of measurement?

#### Unit 7

- What are the differences between fixed and variable expenses?
- How would you calculate profit in different situations?
- How would you create a budget and why are budgets important?
- What are the purposes of financial institutions?

### Essential Standards

4.5 A,B  
4.6D  
4.7C  
4.8C

### Essential Questions

#### Unit 8

- How do graphs help us?
- How would you organize this data?
- How can you collect and organize data so that many people can easily understand?
- How would you make a dot plot, stem & leaf, or frequency table using the data you have collected?
- How do dot plots, stem & leaf, & frequency tables help to answer questions?

#### Unit 9

- How can shapes be classified by their angles and lines?
- What attributes of this object make it a (shape name)?
- What are the differences between acute/obtuse angles and parallel/perpendicular lines?
- How can the relationship among lines, angles, and polygons be used to solve problems?
- How are points, lines, line segments, rays, and angles related?
- Is there more than one way to measure an angle? Explain or justify.
- What strategies can you use to classify an angle and find its measure?

## **Key Academic Vocabulary**

### **Unit 1**

Place value, place value chart, period, digit, standard form, word form, expanded form, greater than, less than, decimal point, tenth, hundredth, equivalent decimal, number line, decimal, regroup, rounding

### **Unit 2**

Addends, sum, fact family, subtraction, estimate, difference, number sentence, perimeter, rounding, doubles, formula

## **Key Academic Vocabulary**

### **Unit 3**

Multiplication, multiplication table, factors, product, array, area, multiple, prime number, composite number, zero property, associative property of multiplication, commutative property of multiplication, property of one for multiplication, distributive property, partial product, compatible numbers

### **Unit 4**

Average, compatible numbers, dividend, divisor, divisible, estimate, fact family, inverse operations, mean, number sentence, partial quotient, property of one of division, quotient, remainder, zero property of division

## **Key Academic Vocabulary**

### **Unit 5**

Fraction, numerator, denominator, equivalent fractions, mixed numbers, improper fractions, number line simplest form, unit fraction, benchmark

### **Unit 6**

Customary: A.M., analog clock, capacity, century, cup, customary system, day, decade, degree Fahrenheit, elapsed time, foot, gallon, half gallon, hour, inch, leap year, length, mile, millennium, minute, noon, ounce, P.M. pint, pound, quart, second, tablespoon, teaspoon, ton, yard, convert, perimeter, volume, area  
Metric: Area, centimeter, decimeter, degree Celsius, gram, kilogram, kilometer, liter, meter, metric system, milliliter, millimeter, convert

### **Unit 7**

Fixed expenses, variable expenses, profit, interest, budget, financial institutions, loan, interest, cent sign, dime, dollar, nickel, penny, quarter, half dollar, savings, checking

## **Key Academic Vocabulary**

### **Unit 8**

Bar graph, data, dot plot, frequency, frequency table, stem-and-leaf plot, tally table, input-output table, patterns

### **Unit 9**

Acute angle, angle, closed figure, cone, cube, cylinder, edge, endpoint, face, hexagon, intersecting lines, line, line segment, obtuse angle, octagon, parallel lines, pentagon, perpendicular, plane, plane figure, point, polygon, quadrilateral, ray, rectangle, rectangular prism, right angle, side, space figure, sphere, square, square pyramid, triangle, vertex, equilateral, isosceles, scalene, trapezoid, parallelogram, rhombus