Elementary - 3rd Grade Math

North Boone CUSD 200

UNITS (6/6 SELECTED)	SUGGESTED DURATION
Unit 1: Understand Multiplication and Area	*13 lessons*
Unit 2: Multiplication and Division	*34 lessons*
Unit 3: Addition and Subtraction Strategies and Applications	*24 lessons*
Unit 4: Fractions	*19 lessons*
Unit 5: Measurement and Data	*12 lessons*
Unit 6: Geometry	*9 lessons*

Unit 1: Understand Multiplication and Area

Elementary - 3rd Grade Math - *Last Updated on July 16, 2021*

STANDARDS

National Common Core State Standards - Grade 3 - Mathematics
CCSS.Math.Content.3.OA.A.3
Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.
CCSS.Math.Content.3.OA.A.1
Interpret products of whole numbers, e.g., interpret 5 × 7 as the total number of objects in 5 groups of 7 objects each.
CCSS.Math.Content.3.OA.B.5
Apply properties of operations as strategies to multiply and divide.
CCSS.Math.Content.3.MD.C.5a
A square with side length 1 unit, called "a unit square," is said to have "one square unit" of area, and can be used to measure area.
CCSS.Math.Content.3.MD.C.6
Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units).
CCSS.Math.Content.3.MD.C.7
Relate area to the operations of multiplication and addition.
CCSS.Math.Content.3.MD.C.7a
Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths.
CCSS.Math.Content.3.MD.C.7b
Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.
CCSS.Math.Content.3.MD.C.5
Recognize area as an attribute of plane figures and understand concepts of area measurement.
CCSS.Math.Content.3.MD.C.7c

Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths a and b + c is the sum of a × b and a × c. Use area models to represent the distributive property in mathematical reasoning.
CCSS.Math.Content.3.OA.A
Represent and solve problems involving multiplication and division.
CCSS.Math.Content.3.OA.B
Understand properties of multiplication and the relationship between multiplication and division.
CCSS.Math.Content.3.MD.C
Geometric measurement: understand concepts of area and relate area to multiplication and to addition.
CCSS.Math.Content.3.MD.C.5b
A plane figure which can be covered without gaps or overlaps by n unit squares is said to have an area of n square units.
CCSS.Math.Content.3.MD.C.7d
Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real world problems.

PRIORITY STANDARDS

CCSS.Math.Content.3.OA.A.3: Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.

Unit 1: Understand Multiplication and Area

Elementary - 3rd Grade Math - *Last Updated on July 16, 2021*

LEARNING PLAN

Learning Targets / Focusing Questions:

- I can count equal groups to find the total number of objects when the number of equal groups and the number of objects in each group is given.
- I can write an addition equation and a multiplication equation to find a total to solve problems about equal groups.
- I can use arrays to represent problems about equal groups and to write multiplication equations.
- I can use the Commutative Property of Multiplication to write related multiplication equations.
- I can use number lines to represent problems about equal groups and to write multiplication equations.
- I can use bar models to represent problems about equal groups and to write multiplication equations.
- I can describe area.
- I can find the area of a figure by counting unit squares.
- I can describe area. I can measure and describe the area of a figure in square units.
- I can use repeated addition or multiplication to find the area of a rectangle.
- I can multiply side lengths to find the area of a rectangle and solve real-world problems.
- I can break apart a figure made up of combined rectangles to find the area. I can multiply and add to find the area.

Unit Resources:

- HMH Into Math 2020 - Grade 3

Summary of Learning Activities:

Trimester 1

- Module 1: Understand Multiplication
  - 1.1 Count Equal Groups
  - 1.2 Relate Addition and Multiplication
  - 1.3 Represent Multiplication with Arrays
  - 1.4 Understand the Commutative Property of Multiplication
  - 1.5 Represent Multiplication with Number Lines
  - 1.6 Represent Multiplication with Bar Models
- Module 2: Relate Multiplication and Area
  - 2.1 Understand Area by Counting Unit Squares
  - 2.2 Measure Area by Counting Unit Squares
  - 2.3 Relate Area to Addition and Multiplication
  - 2.4 Solve Problems with Area
  - 2.5 Find the Area of Combined Rectangles

Unit 2: Multiplication and Division

Elementary - 3rd Grade Math - *Last Updated on July 16, 2021*

STANDARDS

National Common Core State Standards - Grade 3 - Mathematics
CCSS.Math.Content.3.OA.A.3
Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.
CCSS.Math.Content.3.OA.C.7
Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 × 5 = 40, one knows 40 ÷ 5 = 8) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.
CCSS.Math.Content.3.OA.B.5
Apply properties of operations as strategies to multiply and divide.
CCSS.Math.Content.3.OA.D.9
Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations.
CCSS.Math.Content.3.NBT.A.3
Multiply one-digit whole numbers by multiples of 10 in the range 10—90 (e.g., 9 × 80, 5 × 60) using strategies based on place value and properties of operations.
CCSS.Math.Content.3.MD.C.7c
Use tiling to show in a concrete case that the area of a rectangle with whole-number side lengths a and b + c is the sum of a × b and a × c. Use area models to represent the distributive property in mathematical reasoning.
CCSS.Math.Content.3.OA.A.1
Interpret products of whole numbers, e.g., interpret 5 × 7 as the total number of objects in 5 groups of 7 objects each.
CCSS.Math.Content.3.OA.A.2
Interpret whole-number quotients of whole numbers, e.g., interpret 56 ÷ 8 as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each.
CCSS.Math.Content.3.OA.B.6

Understand division as an unknown-factor problem.
CCSS.Math.Content.3.OA.A.4
Determine the unknown whole number in a multiplication or division equation relating three whole numbers.
CCSS.Math.Content.3.OA.D.8
Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.
CCSS.Math.Content.3.OA.A
Represent and solve problems involving multiplication and division.
CCSS.Math.Content.3.OA.B
Understand properties of multiplication and the relationship between multiplication and division.
CCSS.Math.Content.3.OA.C
Multiply and divide within 100.
CCSS.Math.Content.3.OA.D
Solve problems involving the four operations, and identify and explain patterns in arithmetic.
CCSS.Math.Content.3.NBT.A
Use place value understanding and properties of operations to perform multi-digit arithmetic.
CCSS.Math.Content.3.MD.C
Geometric measurement: understand concepts of area and relate area to multiplication and to addition.

PRIORITY STANDARDS

CCSS.Math.Content.3.OA.A.3: Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.

CCSS.Math.Content.3.OA.C.7: Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 × 5 = 40, one knows 40 ÷ 5 = 8) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.

LEARNING PLAN

Learning Targets / Focusing Questions:

- I can use different strategies to multiply with the factors 2 and 4 and solve equal groups problems.
- I can use different strategies to multiply with the factors 5 and 10 and solve equal groups problems.
- I can use different strategies to multiply with the factors 3 and 6 and solve equal groups problems.
- I can use the Identity Property and Zero Property of Multiplication as strategies to multiply with 1 and 0.
- I can understand and know how to use the Distributive Property to decompose factors as a strategy to multiply 1-digit numbers.
- I can multiply three factors by using the Associative and Commutative Properties of Multiplication.
- I can use several multiplication strategies to multiply with 7.
- I can alternate between strategies and properties to multiply with 8.
- I can determine the best strategy to use for different factors and problems.
- I can apply the Distributive Property with multiplication and addition or subtraction.
- I can use patterns and strategies to multiply with 9.
- I can identify arithmetic patterns in the multiplication table and explain them by using the properties of operations.
- I can use patterns and properties to find products in a table and to identify products as odd or even.
- I can use the Distributive Property to find a product when one factor is a multiple of 10.
- I can use the Associative Property to find a product when one factor is a multiple of 10.
- I can use place value to find a product when one factor is a multiple of 10.
- I can use properties, place value, regrouping, and concrete and visual models to find a product when one factor is a multiple of 10.
- I can use the information in a division problem to find the number of groups or the number in each group.
- I can separate objects into equal groups to find the number of objects in each group.
- I can separate a number of objects into equal groups of a given size to find the number of equal groups.
- I can show how subtraction and division are related.
- I can use repeated subtraction or a number line to solve a division problem.
- I can make or draw an array to solve division problems to find the number of objects in each row or the number of rows.
- I can use a bar model to represent and solve a division problem and to write a division equation.
- I can use properties and visual models to apply the rules for dividing with 1 and 0.
- I can use related multiplication and division equations to solve problems.
- I can write related multiplication and division equations to solve problems.
- I can use more than one strategy to solve multiplication and division problems with 2, 4, and 8 as factors and divisors.
- I can use more than one strategy to solve multiplication and division problems with 5 and 10 as factors and divisors.
- I can use more than one strategy to solve multiplication and division problems with 3 and 6 as factors and

divisors.
- I can use more than one strategy to solve multiplication and division problems with 7 and 9 as factors and divisors.
- I can use more than one strategy to recall multiplication and division facts to solve problems.
- I can identify and extend patterns and use patterns to solve problems.
- I can use multiplication and division equations with unknown numbers to solve problems.
- I can represent and solve problems using multiplication and division and unknown numbers.
- I can write equations using the four operations with an unknown to solve two-step problems.
- I can write equations with unknowns using the four operations to solve one- and two-step word problems.

Unit Resources:

- HMH Into Math 2020 - Grade 3

Summary of Learning Activities:

Trimester 1

- Module 3: Understand Multiplication Strategies
  - 3.1 Multiply with 2 and 4
  - 3.2 Multiply with 5 and 10
  - 3.3 Multiply with 3 and 6
- Module 4: Apply Multiplication Properties as Strategies
  - 4.1 Understand the Identity and Zero Properties of Multiplication
  - 4.2 Understand the Distributive Property
  - 4.3 Understand the Associative Property of Multiplication
  - 4.4 Multiply with 7
  - 4.5 Multiply with 8
  - 4.6 Multiply with 9
  - 4.7 Identify Number Patterns on the Multiplication Table
- Module 5: Multiplication with Multiples of 10
  - 5.1 Use the Distributive Property
  - 5.2 Use the Associative Property of Multiplication
  - 5.3 Use Place Value Strategies to Multiply with Multiples of 10
  - 5.4 Multiply Multiples of 10 by 1-Digit
- Module 6: Understand Division
  - 6.1 Represent Division
  - 6.2 Separate Objects into Equal Groups
  - 6.3 Find the Number of Equal Groups
  - 6.4 Relate Subtraction and Division
  - 6.5 Represent Division with Arrays

- 6.6 Represent Division with Bar Models
- 6.7 Apply Division Rules for 1 and 0

Trimester 2

- Module 7: Relate Multiplication and Division
  - 7.1 Relate Multiplication and Division
  - 7.2 Write Related Facts
  - 7.3 Multiply and Divide with 2, 4, and 8
  - 7.4 Multiply and Divide with 5 and 10
  - 7.5 Multiply and Divide with 3 and 6
  - 7.6 Multiply and Divide with 7 and 9
  - 7.7 Build Fluency with Multiplication and Division
- Module 8: Apply Multiplication and Division
  - 8.1 Identify and Extend Patterns
  - 8.2 Find Unknown Factors and Numbers
  - 8.3 Use Multiplication and Division to Solve Problem Situations
  - 8.4 Solve Two-Step Problems
  - 8.5 Practice with One- and Two-Step Problems

Unit 3: Addition and Subtraction Strategies and Applications

Elementary - 3rd Grade Math - *Last Updated on July 16, 2021*

STANDARDS

National Common Core State Standards - Grade 3 - Mathematics
CCSS.Math.Content.3.NBT.A.1
Use place value understanding to round whole numbers to the nearest 10 or 100.
CCSS.Math.Content.3.NBT.A.2
Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.
CCSS.Math.Content.3.MD.B.3
Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs.
CCSS.Math.Content.3.MD.A.1
Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.
CCSS.Math.Content.3.OA.D.9
Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations.
CCSS.Math.Content.3.OA.D.8
Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.
CCSS.Math.Content.3.MD.D.8
Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.
CCSS.Math.Content.3.OA.D
Solve problems involving the four operations, and identify and explain patterns in arithmetic.
CCSS.Math.Content.3.NBT.A
Use place value understanding and properties of operations to perform multi-digit arithmetic.

CCSS.Math.Content.3.MD.B
Represent and interpret data.
CCSS.Math.Content.3.MD.A
Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.
CCSS.Math.Content.3.MD.D
Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.

PRIORITY STANDARDS

CCSS.Math.Content.3.NBT.A.1: Use place value understanding to round whole numbers to the nearest 10 or 100.

CCSS.Math.Content.3.NBT.A.2: Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.

CCSS.Math.Content.3.MD.B.3: Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs.

CCSS.Math.Content.3.MD.A.1: Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes, e.g., by representing the problem on a number line diagram.

Unit 3: Addition and Subtraction Strategies and Applications

Elementary - 3rd Grade Math - *Last Updated on July 16, 2021*

LEARNING PLAN

Learning Targets / Focusing Questions:

- I can identify number patterns on an addition table.
- I can use the Identity and Commutative Properties of Addition to complete equations.
- I can use mental math strategies to add and subtract with 2- and 3-digit numbers.
- I can use the Commutative and Associative Properties of Addition to find the sum of more than two addends.
- I can use mental math to determine the reasonableness of statements and answers.
- I can use and explain how to use place value to round whole numbers to the nearest ten or hundred.
- I can use rounding and compatible numbers to estimate sums and differences and solve problems.
- I can use expanded form and partial sums to add 2- and 3-digit numbers.
- I can use place value and regrouping to add 2- and 3-digit numbers.
- I can combine place values and use flexible grouping to subtract 2- and 3-digit numbers.
- I can regroup first and then use place value to subtract 2- and 3-digit numbers.
- I can apply strategies I have learned to solve addition and subtraction problems.
- I can write equations with letters for unknown quantities to solve two-step problems.
- I can count or use addition or multiplication to find the distance around a polygon.
- I can measure the lengths of the sides of polygons using inch or centimeter units to find the perimeter of a polygon.
- I can add side lengths to find the perimeter.
- I can find the unknown side length of a polygon when I know the other side lengths and the perimeter of a polygon.
- I can add, subtract, multiply, and divide to find the unknown side length.
- I can use perimeter to compare rectangles with the same area.
- I can use area to compare rectangles with the same perimeter.
- I can tell and write time to the nearest minute.
- I can use a.m. and p.m. to describe time.
- I can find elapsed time when I know the start time and the end time.
- I can find the start time or the end time when I know the elapsed time.
- I can use a number line to find the end time or the start time when I know two amounts of elapsed time.
-

Unit Resources:

- HMH Into Math 2020 - Grade 3

Summary of Learning Activities:

Trimester 2:

- Module 9: Addition and Subtraction Strategies
  - 9.1 Identify Number Patterns on the Addition Table

- 9.2 Use Mental Math Strategies for Addition and Subtraction
- 9.3 Use Properties to Add
- 9.4 Use Mental Math to Assess Reasonableness
- 9.5 Round to the Nearest Ten or Hundred
- 9.6 Use Estimation with Sums and Differences

- Module 10: Addition and Subtraction within 1,000
  - 10.1 Use Expanded Form to Add
  - 10.2 Use Place Value to Add
  - 10.3 Combine Place Values to Subtract
  - 10.4 Use Place Value to Subtract
  - 10.5 Choose a Strategy to Add or Subtract
  - 10.6 Model and Solve Two-Step Problems
- Module 11: Understand Perimeter
  - 11.1 Describe Perimeter
  - 11.2 Find Perimeter
  - 11.3 Find Unknown Side Lengths
  - 11.4 Represent Rectangles with the Same Area and Different Perimeters
  - 11.5 Represent Rectangles w/ the Same Perimeter & Different Areas
- Module 12: Time Measurement and Intervals
  - 12.1 Tell and Write Time to the Minute
  - 12.2 Use A.M. and P.M/ to Describe Time
  - 12.3 Measure Time Intervals
  - 12.4 Find Start and End Times
  - 12.5 Solve Time Interval Problems

Unit 4: Fractions

Elementary - 3rd Grade Math - *Last Updated on July 16, 2021*

STANDARDS

National Common Core State Standards - Grade 3 - Mathematics
CCSS.Math.Content.3.G.A.2
Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole.
CCSS.Math.Content.3.MD.B.4
Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units— whole numbers, halves, or quarters.
CCSS.Math.Content.3.NF.A.2a
Represent a fraction 1/b on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into b equal parts. Recognize that each part has size 1/b and that the endpoint of the part based at 0 locates the number 1/b on the number line.
CCSS.Math.Content.3.NF.A.2b
Represent a fraction a/b on a number line diagram by marking off a lengths 1/b from 0. Recognize that the resulting interval has size a/b and that its endpoint locates the number a/b on the number line.
CCSS.Math.Content.3.NF.A.3a
Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line.
CCSS.Math.Content.3.NF.A.3c
Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers.
CCSS.Math.Content.3.NF.A.3d
Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual fraction model.
CCSS.Math.Content.3.NF.A.3b
Recognize and generate simple equivalent fractions, e.g., 1/2 = 2/4, 4/6 = 2/3). Explain why the fractions are equivalent, e.g., by using a visual fraction model.
CCSS.Math.Content.3.NF.A.1
Understand a fraction 1/b as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction a/b as the quantity formed by a parts of size 1/b.

CCSS.Math.Content.3.NF.A.3
Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.
CCSS.Math.Content.3.MD.B
Represent and interpret data.
CCSS.Math.Content.3.G.A
Reason with shapes and their attributes.
CCSS.Math.Content.3.NF.A
Develop understanding of fractions as numbers.
CCSS.Math.Content.3.NF.A.2
Understand a fraction as a number on the number line; represent fractions on a number line diagram.

Unit 4: Fractions

Elementary - 3rd Grade Math - *Last Updated on July 16, 2021*

PRIORITY STANDARDS

CCSS.Math.Content.3.G.A.2: Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole.

CCSS.Math.Content.3.MD.B.4: Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units— whole numbers, halves, or quarters.

CCSS.Math.Content.3.NF.A.2a: Represent a fraction 1/b on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into b equal parts. Recognize that each part has size 1/b and that the endpoint of the part based at 0 locates the number 1/b on the number line.

CCSS.Math.Content.3.NF.A.2b: Represent a fraction a/b on a number line diagram by marking off a lengths 1/b from 0. Recognize that the resulting interval has size a/b and that its endpoint locates the number a/b on the number line.

CCSS.Math.Content.3.NF.A.3a: Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line.

CCSS.Math.Content.3.NF.A.3c: Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers.

CCSS.Math.Content.3.NF.A.3d: Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual fraction model.

CCSS.Math.Content.3.NF.A.3b: Recognize and generate simple equivalent fractions, e.g., 1/2 = 2/4, 4/6 = 2/3). Explain why the fractions are equivalent, e.g., by using a visual fraction model.

Unit 4: Fractions

Elementary - 3rd Grade Math - *Last Updated on July 16, 2021*

LEARNING PLAN

Learning Targets / Focusing Questions:

- I can identify, draw, and name equal parts of a whole that is divided in different ways.
- I can represent and identify one equal part of a whole or group as a unit fraction.
- I can use a fraction to name an equal part of a whole or an equal part of a group.
- I can identify, describe, represent, and locate fractions on a number line.
- I can draw visual models to show how to write fractions that name whole numbers.
- I can identify fractions greater than 1 on a number line and write them in fraction form and as mixed numbers.
- I can measure lengths to the nearest half or fourth of an inch using a ruler.
- I can use a fraction to show that equal parts of a whole shape have the same area.
- I can divide shapes into parts with equal areas and write each equal part as a fraction.
- I can write a unit fraction to represent the area of each equal part of a whole shape.
- I can use concrete and visual models to compare fractions.
- I can compare fractions that are divided into an equal number of same-sized parts.
- I can compare fractions that count the same number of equal parts when the whole is divided into a different number of equal parts.
- I can use different reasoning strategies to compare fractions.
- I can represent a fraction with equal parts that are smaller in size than the equal parts of an equivalent fraction.
- I can represent a fraction with equal parts that are larger in size than the equal parts of an equivalent fraction.
- I can represent a fraction with equal parts that are smaller or larger in size than the equal parts of an equivalent fraction.

Unit Resources:

- HMH Into Math 2020 - Grade 3

Summary of Learning Activities:

Trimester 3

- Module 13: Understand Fractions as Numbers
  - 13.1 Describe Equal Parts of a Whole
  - 13.2 Represent and Name Unit Fractions
  - 13.3 Represent and Name Fractions of a Whole
  - 13.4 Represent and Name Fractions on a Number Line
  - 13.5 Express Whole Numbers as Fractions
  - 13.6 Represent and Name Fractions Greater Than 1
  - 13.7 Use Fractions to Measure Lengths
- Module 14: Relate Shapes, Fractions, and Area
  - 14.1 Relate Fractions and Area
  - 14.2 Partition Shapes into Equal Areas

- 14.3 Use Unit Fractions to Describe Area

- Module 15: Compare Fractions
  - 15.1 Compare Fractions Using Concrete and Visual Models
  - 15.2 Compare Fractions with the Same Denominator
  - 15.3 Compare Fractions with the Same Numerator
  - 15.4 Use Reasoning Strategies to Compare Fractions
- Module 16: Understand Equivalent Fractions
  - 16.1 Represent Equivalent Fractions with Smaller Parts
  - 16.2 Represent Equivalent Fractions with Larger parts
  - 16.3 Recognize and Generate Equivalent Fractions

Unit 5: Measurement and Data

Elementary - 3rd Grade Math - *Last Updated on July 16, 2021*

STANDARDS

National Common Core State Standards - Grade 3 - Mathematics
CCSS.Math.Content.3.MD.A.2
Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.
CCSS.Math.Content.3.MD.B.3
Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs.
CCSS.Math.Content.3.MD.B.4
Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units— whole numbers, halves, or quarters.
CCSS.Math.Content.3.OA.D.8
Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.
CCSS.Math.Content.3.OA.D
Solve problems involving the four operations, and identify and explain patterns in arithmetic.
CCSS.Math.Content.3.MD.A
Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.
CCSS.Math.Content.3.MD.B
Represent and interpret data.

Unit 5: Measurement and Data

Elementary - 3rd Grade Math - *Last Updated on July 16, 2021*

PRIORITY STANDARDS

CCSS.Math.Content.3.MD.A.2: Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.

CCSS.Math.Content.3.MD.B.3: Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs.

CCSS.Math.Content.3.MD.B.4: Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units— whole numbers, halves, or quarters.

Unit 5: Measurement and Data

Elementary - 3rd Grade Math - *Last Updated on July 16, 2021*

LEARNING PLAN

Learning Targets / Focusing Questions:

- I can use metric units to estimate and measure liquid volume.
- I can use metric units to estimate and measure the mass of objects.
- I can solve word problems that involve liquid volume and mass.
- I can use data in a picture graph to solve how many more and how many less problems.
- I can draw a scaled picture graph to solve *how many more* and *how many less* problems.
- I can use data in a scaled bar graph to solve *how many more* and *how many less* problems.
- I can draw a scaled bar graph to solve *how many more* and *how many less* problems.
- I can use a line plot to display measurement data.
- I can measure lengths to the nearest quarter inch and make a line plot to display the data.
- I can use data in picture graphs, bar graphs, and line plots to solve one- and two-step *how many more* and *how many less* problems.

Unit Resources:

- HMH Into Math 2020 - Grade 3

Summary of Learning Activities:

Trimester 3:

- Module 17: Liquid Volume and Mass
  - 17.1 Estimate and Measure Liquid Volume
  - 17.2 Estimate and Measure Mass
  - 17.3 Solve Problems About Liquid Volume and Mass
- Module 18: Represent and Interpret Data
  - 18.1 Use Picture Graphs
  - 18.2 Make Picture Graphs
  - 18.3 Use Bar Graphs
  - 18.4 Make Bar Graphs
  - 18.5 Use Line Plots to Display Measurement Data
  - 18.6 Make Line Plots to Display Measurement Data
  - 18.7 Solve One- and Two-Step Problems Using Data

Unit 6: Geometry

Elementary - 3rd Grade Math - *Last Updated on July 16, 2021*

STANDARDS

National Common Core State Standards - Grade 3 - Mathematics
CCSS.Math.Content.3.G.A.1
Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.
CCSS.Math.Content.3.G.A
Reason with shapes and their attributes.

PRIORITY STANDARDS

CCSS.Math.Content.3.G.A.1: Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.

Unit 6: Geometry

Elementary - 3rd Grade Math - *Last Updated on July 16, 2021*

LEARNING PLAN

Learning Targets / Focusing Questions:

- I can describe shapes as open or closed, as polygons, and by the number of sides and the number of angles.
- I can identify angles that are right angles, greater than a right angle, or less than a right angle in shapes.
- I can identify whether the sides of a shape are equal or not equal in length.
- I can identify parallel sides of a shape.
- I can use the number of sides, the number of angles, the number of sides of equal length, and the number of right angles to describe and identify quadrilaterals.
- I can draw a quadrilateral given descriptions of the sides and angles in the shape.
- I can group quadrilaterals using the side lengths or number of right angles.
- I can identify whether a shape belongs in a group by the number of sides, number of angles, sides that are equal in length, parallel sides, and by some shape names and attributes.
- I can identify whether a plane shape belongs in a category by the number of parallel sides, sides of equal length, and right angles.

Unit Resources:

- HMH Into Math 2020 - Grade 3

Summary of Learning Activities:

Trimester 3:

- Module 19: Define Two-Dimensional Shapes
  - 19.1 Describe Shapes
  - 19.2 Describe Angles in Shapes
  - 19.3 Describe Sides of Shapes
  - 19.4 Define Quadrilaterals
- Module 20: Categorize Two-Dimensional Shapes
  - 20.1 Draw Quadrilaterals
  - 20.2 Categorize Quadrilaterals
  - 20.3 Categorize Plane Shapes