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**Coal City Unit District #1**  
**Third Grade**  
**Math Curriculum**

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- MA.3:1 Students will represent and solve problems involving multiplication and division. (3.OA.1, 3.OA.2, 3.OA.3, 3.OA.4)**
- MA.3:1-1 Solve multiplication problems using given information.
  - MA.3:1-2 Determine the way to successfully solve division problems using given information.
  - MA.3:1-3 Solve a variety of multiplication and division problems using various strategies.
  - MA.3:1-4 Interpret an equation with a variable using student knowledge of the equal sign, to solve for an unknown number.
- MA.3:2 Students will understand properties of multiplication and the relationship between multiplication and division. (3.OA.5, 3.OA.6)**
- MA.3:2-1 Solve equations using student knowledge of the associative, distributive, and commutative properties.
  - MA.3:2-2 Construct multiplication and division problems using student knowledge of fact families and inverse operations.
- MA.3:3 Students will multiply and divide within 100. (3.OA.7)**
- MA.3:3-1 Fluently compute multiplication facts through factors of 10.
  - MA.3:3-2 Fluently compute division facts through divisors of 10.
- MA.3:4 Students will solve problems involving the four operations and identify and explain patterns in arithmetic. (3.OA.8, 3.OA.9)**
- MA.3:4-1 Solve multi-step problems using equations with or without a variable.
  - MA.3:4-2 Identify a reasonable answer using rounding.
  - MA.3:4-3 Apply strategies, including the use of patterns within multiplication, addition, subtraction, and division to solve problems.
- MA.3:5 Students will use place value understanding and properties of operations to perform multi-digit arithmetic. (3.NBT.1, 3.NBT.2, 3.NBT.3)**
- MA.3:5-1 Calculate rounded numbers using knowledge of place value.
  - MA.3:5-2 Calculate whole numbers using knowledge of number sense.
  - MA.3:5-3 Apply a variety of strategies to accurately compute equations.
  - MA.3:5-4 Apply knowledge of place value and multiplication to multi-digit equations.

**MA.3:6 Students will develop understanding of fractions as numbers. (3.NF.1, 3.NF.2, 3.NF.2a, 3.NF.2b, 3.NF.3, 3.NF.3a, 3.NF.3b, 3.NF.3c, 3.NF.3d)**

- MA.3:6-1 Identify that a fraction is made up of equal parts, each part has a numerator of 1. The denominator is the total number of equal parts.
- MA.3:6-2 Identify and represent fractions on a number line.
- MA.3:6-3 Identify that the distance from 0 to the first segment is represented as 1 out of 4 segments, or  $\frac{1}{4}$ . (limited to denominators of 2,3,4,6,8)
- MA.3:6-4 Identify that the distance from 0 to the 3rd segment is 3 out of 4 segments, or  $\frac{3}{4}$ . (limited to denominators of 2,3,4,6,8)
- MA.3:6-5 Compare fractions understanding that the denominator tells part size and the numerator tells how many parts.
- MA.3:6-6 Identify equivalence between fractions with the use of a number line and knowledge of fraction size.
- MA.3:6-7 Identify equivalent fractions using visual models.
- MA.3:6-8 Identify fractions that represent whole numbers.
- MA.3:6-9 Identify similar fractions using the greater than, less than and equal to symbols.

**MA.3:7 Students will solve problems involving measurement and estimations of intervals of time, liquid volumes, and masses of objects. (3.MD.1, 3.MD.2)**

- MA.3:7-1 Tell time by 1 minute, 5 minute, 15 minute, and hour intervals.
- MA.3:7-2 Solve elapsed time word problems by using a clock face or number line.
- MA.3:7-3 Solve one step word problems involving mass and volume.
- MA.3:7-4 Determine the correct customary unit of measurement. (liters, milliliters, grams, kilograms, quarts, gallons, etc)

**MA.3:8 Students will represent and interpret data. (3.MD.3, 3.MD.4)**

- MA.3:8-1 Formulate and interpret bar graphs and picture graphs with appropriate scales to solve problems with given information.
- MA.3:8-2 Apply student understanding of fractions to breaking an inch in to  $\frac{1}{2}$  and  $\frac{1}{4}$ .
- MA.3:8-3 Measure varying lengths of  $\frac{1}{4}$  and  $\frac{1}{2}$  inch on a ruler.
- MA.3:8-4 Display data collected on a line plot.

**MA.3:9 Students will understand concepts of an area and relate area to multiplication and to addition. (3.MD.5, 3.MD.6, 3.MD.7, 3.MD.7a, 3.MD.7b, 3.MD.7c, 3.MD.7d)**

- MA.3:9-1 Demonstrate measuring area by counting unit squares on a plane figure.
- MA.3:9-2 Relate area to the use of multiplication and addition.
- MA.3:9-3 Compare the area of a figure after tiling it to multiplication.
- MA.3:9-4 Solve real world area problems using multiplication.
- MA.3:9-5 Find the area of a rectangle by multiplying side lengths.
- MA.3:9-6 Demonstrate how to use the distributive property when finding area.
- MA.3:9-7 Calculate the area of an irregular object by decomposing the shape into non-overlapping rectangles, using the distributive property and applying this to real world situations.
- MA.3:9-8 Identify the correct unit of measurement (centimeters, feet, inches, etc)

**MA.3:10 Students will recognize perimeter as an attribute of plane and distinguish between linear and area measures. (3.MD.8)**

- MA.3:10-1 Demonstrate how to find the perimeter of a shape using addition and looking for patterns to solve for unknown lengths and widths.
- MA.3:10-2 Demonstrate that a shapes can have the same perimeter and different area.

**MA.3:11 Students will reason with shapes and their attributes. (3.G.1, 3.G.2)**

- MA.3:11-1 Differentiate between quadrilaterals and non-quadrilateral shapes.
- MA.3:11-2 Categorize geometric figures into subgroups and those that stand alone.
- MA.3:11-3 Demonstrate how to break a shape into equal parts and identify each of the parts by using fractions.
- MA.3:11-4 Differentiate between obtuse, acute, and right angles.
- MA.3:11-5 Identify intersecting, diagonal, and parallel lines.