

**OPERATIONS AND ALGEBRAIC THINKING - Write and interpret numerical expressions**

5.OA.3 Analyze patterns and relationships.

**EES.OA.3.** Identify and extended numerical patterns.

4	When given a rule, generate the pattern.
3	Identify and extend numerical patterns.
2	Extend a picture pattern.
1	Repeat a pattern.

**NUMBERS AND OPERATIONS BASE TEN - Understand the place value system**

5.NBT.1. Understand the place value system.

**EES.NBT.1.** Compare numbers to each other based on place value groups by composing and decomposing to 99.

4	Compare numbers by composing and decomposing two different ways.
3	Compare numbers to each other based on place value groups by composing and decomposing to 99.
2	Compare numbers to 20.
1	Compare numbers 0-10.

5.NBT.2. Understand the place value system.

**EES.NBT.2.** Recognize patterns in the number of zeros when multiplying a number by powers of 10.

4	Extend patterns in the number of zeros when multiplying by the powers of 10.
3	Recognize patterns in the number of zeros when multiplying a number of powers of 10.
2	Order multiples of ten ranging from 0-50 in sequential order least to greatest.
1	Indicate the sequential order of numbers to 10.

5.NBT.3. Understand the place value system.

**EES.NBT.3.** Round two-digit whole numbers to the nearest 10 from 0-90.

4	Round three-digit whole numbers to hundreds place.
3	Round two-digit whole numbers to the nearest 10 from 0-90.
2	Determine if a single-digit number is closer to zero or 10.
1	Indicate which money amount is more.

5.NBT.4. Use place value understanding to round decimals to any place.

**EES.NBT.4.** Round money to a nearest dollar.

4	Round money to the nearest dime.
3	Round money to the nearest dollar.
2	Round money to the nearest dime.
1	Indicate which money amount is more.

**NUMBERS AND OPERATIONS BASE TEN - Perform operations with multi-digit whole numbers and with decimals to hundredths**

5.NBT.5. Fluently multiply multi-digit whole numbers using the standard algorithm.

**EES.NBT.5.** Multiply whole numbers up to 5 x 5.

4	Identify basic multiplication facts for numbers greater than five.
3	Multiply whole numbers 5 x 5.
2	Use repeated addition to show multiplication with single digits 1-5.
1	Use concrete representations to show numbers 1-5.

5.NBT.6. Find whole number quotients of whole numbers with up to four digit dividends and two digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

5.NBT.7. Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

**EES.NBT.6-7.** Construct equal sets.

4	Apply the concept of fair share and equal shares to solve a division problem.
3	Illustrate the concept of division using fair and equal shares. Ex. Fold paper in equal shares.
2	Construct equal sets.
1	Replicate an equal set from a model.

**NUMBERS AND OPERATIONS FRACTIONS - Use equivalent fractions as a strategy to add and subtract fractions**

5.NF.1. Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators. For example,  $\frac{2}{3} + \frac{5}{4} = \frac{8}{12} + \frac{15}{12} = \frac{23}{12}$ . (In general,  $\frac{a}{b} + \frac{c}{d} = \frac{ad + bc}{bd}$ ).

**EES.NF.1.** Differentiate between halves, fourths, and eighths.

4	Differentiate fractional parts less than 1/4.
3	Differentiate between halves, fourths, and eighths.
2	Differentiate between whole and a part.
1	Recognize that fractions are part of a whole.

5.NF.2. Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, e.g., by using visual fraction models or equations to represent the problem. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers. For example, recognize an incorrect result  $\frac{2}{5} + \frac{1}{2} = \frac{3}{7}$ , by observing that  $\frac{3}{7} < \frac{1}{2}$ .

**EE5.NF.2.** Solve two step word problems using addition and subtraction of whole numbers.

4	Solve two step word problems using addition and subtraction of numbers after showing the problem in numerals.
3	Solve two step word problems using addition and subtraction of whole numbers.
2	Solve one step problems using addition and subtraction.
1	Recognize words that are used for addition and subtraction.

**MEASUREMENT AND DATA - Convert like measurement units within a given measurement system**

5.MD.1. Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real world problems.

**EE5.MD.1.a.** Tell time using an analog or digital clock to the half or quarter hour.

4	Tell time using a digital clock to the minute and an analog
3	Tell time using an analog or digital clock to the half or quarter hour.
2	Tell time to the half hour using a digital clock and to the half hour using an analog clock.
1	Identify morning and afternoon.

5.MD.1. Convert among different sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi step, real world problems.

**EE5.MD.1.b.** Use customary units to measure weight and length of objects.

4	Use two customary units to measure weight and length of objects.
3	Use customary units to measure weight and length of objects.
2	Identify customary units of measurement for weight and length.
1	Identify which tools are used to weigh.

5.MD.1. Convert among different sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi step, real world problems.

**EE5.MD.1.c.** Indicate relative value of collections of coins.

4	Indicate relative value of coins and bills to each other.
3	Indicate relative value of collections of coins.
2	Identify coins (penny, nickel, dime, quarter) and their values.
1	Match coins that are alike (penny, nickel, dime, quarter).

**MEASUREMENT AND DATA - Represent and interpret data**

5.MD.2.a. Make a line plot to display a data set of measurements in fractions of a unit ( $\frac{1}{2}$ ,  $\frac{1}{4}$ ,  $\frac{1}{8}$ ). Use operations on fractions for this grade to solve problems involving information presented in line plots. For example, given different measurements of liquid in identical beakers, find the amount of liquid each beaker would contain if the total amount in all the beakers were redistributed equally.

**EE5.MD.2.a.** Represent and interpret data on a picture, line plot, or bar graph given a model and a graph to complete.

4	Collect, organize, and interpret data. Create a graph using a graph template, and display the data on the graph.
3	Represent and interpret data on a picture, line plot, or bar graph given a model and a graph to complete.
2	Display data on a picture, line plot, or bar graph and answer questions about the graph.
1	Identify a simple graph.

**MEASUREMENT AND DATA - Geometric measurement: understand concepts of volume**

5.MD.3. Recognize volume as an attribute of solid figures and understand concepts of volume measurement.

A cube with side length 1 unit, called a “unit cube,” is said to have “one cubic unit” of volume, and can be used to measure volume. A solid figure, which can be packed without gaps or overlaps using  $n$  unit cubes, is said to have a volume of  $n$  cubic units.

**EE5.MD.3-5.** Determine volume of a cube by counting units of measure.

4	MD.3-5. N/A
3	Determine volume of a cube by counting units of measure.
2	Identify objects that have volume.
1	Demonstrate solid or liquid, full or empty.

**GEOMETRY - Graph points on the coordinate plane to solve real-world and mathematical problems**

5.G.1. – 5 Graph points on the coordinate plane to solve real world and mathematical problems.

**EE5.G.1-5.** Sort two dimensional figures and describe the common attributes such as angles, number of sides, corners (dimension), and color.

4	Sort into quadrant tables and describe figures by two common attributes.
3	Sort two dimensional figures and describe the common attributes such as angles, number of sides, corners (dimension), and color.
2	Sort figures based on a given attribute.
1	Indicate two dimensional shapes named.