Third Grade Math Framework – 1st Nine Weeks 2017-2018

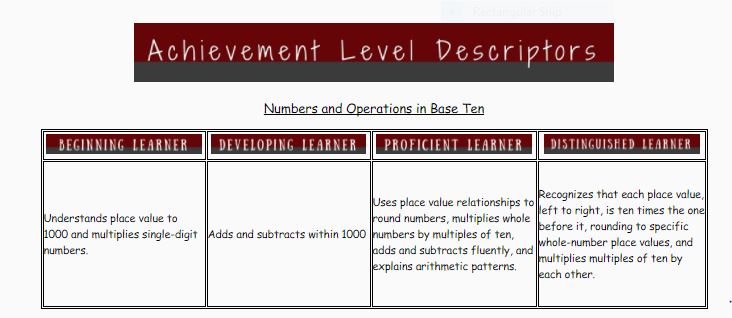
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| **Quarter – 1st**  **Week - 1 Dates – 8/7/2017**  **Learning Targets**  **Unit – 1 – Base Ten**   * I can use place value to round whole numbers to the nearest 10 or 100. * I can add and subtract fluently within 1000 using strategies based on place value, properties of operations, and/or the relationships between addition and subtraction. | **AKS**  **Use place value understanding and properties of operations to perform multi-digit arithmetic.**  **10.NBT.1** use place value understanding to round whole numbers to the nearest 10 or 100  **11.NBT.2** add and subtract fluently within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction | **Vocabulary**  place value,  round,  estimate,  number line,  open number line, hundreds chart | **Textbook Resources**  **McGraw Hill/My Math**  **Chapter 1**  Lesson 4  Lesson 5  **Chapter 3**  Lesson 3 |
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| **Teacher Resources:**  **Technology Resources**  [**Learn zillion**](https://learnzillion.com/lessonsets/370-round-whole-numbers-to-the-nearest-10-or-100)  [**Interactive Number line**](http://nlvm.usu.edu/en/nav/frames_asid_334_g_1_t_1.html?open.instructions)  **Instructional Resources:**  Concrete: Number lines and hundreds charts   * Prior to implementing rules for rounding, students need to have opportunities to investigate place value. A strong understanding of place value is essential for the developed number sense and the subsequent work that involves rounding numbers. * Students should have numerous experiences using number lines and hundreds charts as tools to support their understanding of rounding. * Students can create their own number line by cutting apart a hundreds chart, gluing it together, and blocking off numbers that round to a multiple of ten in different colors | **Assessment**  Check all that apply for the week:  Fact Fluency – YES  TOTD –  Quick Check –  Unit Common Assessment # \_\_\_\_  District Assessment Pre-Test | **Calendar/**  **Number Talks**  Preview Procedures, Depositor, Patterns, Fact Families  Preview Geometry | **Manipulatives**  Base Ten Blocks  Hundred Chart  Number Lines  Place Value Chart |
| **Anchor Charts**  Place Value | **Homework**  Week 1 Spiral  Use your Weekly Spiral HW as desired. Add other differentiated HW to weekly plans. |
| **Quarter – 1st**  **Week - 2 Dates – 8/14/2017**  **Learning Targets**  **Unit – 1 – Base Ten**   * I can use place value to round whole numbers to the nearest 10 or 100. * I can add and subtract fluently within 1000 using strategies based on place value, properties of operations, and/or the relationships between addition and subtraction. | **AKS**  **Use place value understanding and properties of operations to perform multi-digit arithmetic.**  **10.NBT.1** use place value understanding to round whole numbers to the nearest 10 or 100  **11.NBT.2** add and subtract fluently within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction | **Vocabulary**  place value,  round,  estimate,  number line,  open number line, hundreds chart | **Textbook Resources**  [Lesson 1: Estimating the Sum or Difference](http://www.hand2mind.com/pdf/hos/hos-cce-online/e78864_HOS_CCE_Grade%203/e78864_CCE_3_NBT1.pdf)  [Lesson 2: Adding and Subtracting](http://www.hand2mind.com/pdf/hos/hos-cce-online/e78864_HOS_CCE_Grade%203/e78864_CCE_3_NBT2.pdf)  **McGraw Hill/My Math**  **Chapter 1**  Lesson 4  Lesson 5  **Chapter 3**  Lesson 3 | |
| **Teacher Resources:**  **Technology Resources**  [**Addition/Subtraction game**](http://www.playkidsgames.com/games/shuttleLaunch/shuttleLaunch.htm)  [**Thinking Blocks addition subtraction**](http://www.mathplayground.com/tb_addition/thinking_blocks_addition_subtraction.html)  [**Estimating sums pacman**](http://www.sheppardsoftware.com/mathgames/round/mathman_round_addition.htm)  [**Estimation penguins**](https://www.mangahigh.com/en-us/games/iceicemaybe)  **Instructional Resources:**   * Semi-Concrete: Number line model   + Dependence on learning rules can be eliminated with strategies such as the use of a number line to determine which multiple of 10 or of100, a number is nearest (5 or more rounds up, less than 5 rounds down). * Representational: Students will be able to construct open number lines to round numbers to the nearest 10 and 100.   + Step 1: Identify two possible answers and halfway points.   + Step 2: Narrow where the given number falls between the possible answers and half way points. | **Assessment**  Check all that apply for the week:  Fact Fluency – YES  TOTD – YES  Quick Check –  Unit Common Assessment # \_\_\_\_  District Assessment # \_\_\_\_ | **Calendar/**  **Number Talks**  Preview Procedures, Depositor, Patterns, Fact Families  Preview Geometry  **Anchor Charts**  Place Value | **Manipulatives**  Base Ten Blocks  Hundred Chart  Number Lines  Place Value Chart  **Homework**  Week 2 Spiral  Use your Weekly Spiral HW as desired. Add other differentiated HW to weekly plans. | |

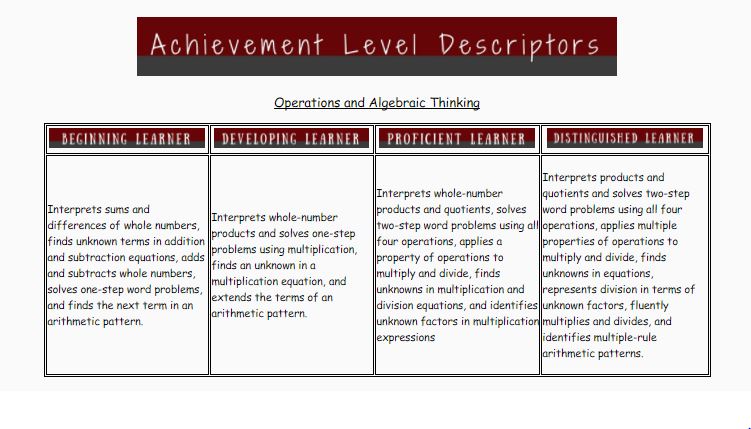
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| **Quarter – 1st**  **Week - 3 Dates – 8/21/2017**  **Learning Targets**  **Unit – 2 – Multiplication and Division Relationships**   * I can interpret products of whole numbers using repeated addition, array models, and counting by multiples to correctly multiply one digit numbers. | **AKS** Represent and solve problems involving multiplication and division. **1.OA.1** interpret products of whole numbers [e.g., interpret 5 x 7 as the total number of objects in 5 groups of 7 objects each (e.g., describe a context in which a total number of objects can be expressed as 5 x 7)]  **2.OA.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; how many are in each group?), or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each; how many groups can you make? (e.g., describe a context in which a number of shares or a number of groups can be expressed as 56 ÷ 8)  **3.OA.3** apply multiplication and division within 100 (products or dividends 0 - 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)  **4.OA.4** determine the unknown whole number in a multiplication or division equation relating three whole numbers using the inverse relationship of multiplication and division (e.g., determine the unknown number that makes the equation true in each of the equations 8 x ? = 48; 5 = ■ ÷ 3, 6 x 6 = ▲)  **12.NBT.3** multiply one-digit whole numbers by multiples of 10 in the range 10 ̶ 90 (e.g., 9 x 80, 5 x 60) using strategies based on place value and properties of operations. | **Vocabulary**  array,  equal groups, equations,  factor,  multiple,  groups of, multiplication,  partial products, product,  dividend,  division,  divisor,  equal groups, equations,  division/repeated subtraction,  partition,  equal shares,  quotient,  unknown | **Textbook Resources**  [Lesson 1: Multiplying with Arrays](http://www.hand2mind.com/pdf/hos/hos-cce-online/e78864_HOS_CCE_Grade%203/e78864_CCE_3_OA1.pdf)  [Lesson 2: Multiplying by 5](http://www.hand2mind.com/pdf/hos/hos-cce-online/e78864_HOS_CCE_Grade%203/e78864_CCE_3_OA2.pdf)  **McGraw-Hill/ My Math**  **Chapter 6**  Lesson 1-5, 9  **Chapter 5**  Lesson 1-3  **Chapter 7**  Lesson 2  Lesson 5  Lesson 8  **Chapter 8**  Lesson 3  Lesson 6  Lesson 9 |
| **Teacher Resources:**  [**Array picture cards**](http://www.k-5mathteachingresources.com/support-files/arraypicturecards.pdf)  [**Each Orange Math Lit support**](http://www.k-5mathteachingresources.com/support-files/each-orange-had-8-slices.pdf)  [**Smart Board Multiplication**](http://exchange.smarttech.com/details.html?id=ed20d8d3-04fc-481a-8c12-18196ee2db1d)  [**Multiplication Support**](http://teachersites.schoolworld.com/webpages/RPalmatary/files/factors,%20multiples,%20and%20arrays-student%20notebook.pdf)  [**Number Jungle**](https://www.brainpop.com/games/numberjumble/)  **Instructional Resources:**   * Concrete: Students use manipulatives like two colored counters, color tiles and snap cubes to make equal groups and array models. * Semi-Concrete: Students will play games like “Circles and Stars” (Marilyn Burns) to use dice to roll two factors and find the product using pictorial representations. Students can use the model to calculate the product through skip counting or repeated addition. | **Assessment**  Check all that apply for the week:  Fact Fluency – YES  TOTD –  Quick Check –  Unit Common Assessment – Unit 1 - [3rd Grade Unit 1 (Word)](https://instruction.gwinnett.k12.ga.us/content/enforced/58323-MathCommCtr/IRC%202016-2017/ES/Third%20Grade/3rd%20Grade%20Unit%201.docx?_&d2lSessionVal=nEQlUcE17N9DbgCyblrbdwCaT&ou=58323)  District Assessment # \_\_\_\_ | **Calendar/**  **Number Talks**  Depositor, Patterns, Fact Families,  Daily Array,  Compare and Contrast,  Preview Geometry  **Anchor Charts**  Unit 2 Vocabulary  Fact Families  Multiplication Strategies | **Manipulatives**  Base Ten Blocks  Hundred Chart  Number Lines  Color Tiles  Arrays  **Homework**  Week 3 Spiral  Use your Weekly Spiral HW as desired. Add other differentiated HW to weekly plans. |
| **Quarter – 1st**  **Week - 4 Dates – 8/28/2017**  **Learning Targets**  **Unit – 2 – Multiplication and Division Relationships**   * I can interpret products of whole numbers using repeated addition, array models, and counting by multiples to correctly multiply one digit numbers. * I can interpret whole number quotients of whole numbers to describe in context the models of division: the repeated subtraction model and the sharing model of division. | **AKS** Represent and solve problems involving multiplication and division. **1.OA.1** interpret products of whole numbers [e.g., interpret 5 x 7 as the total number of objects in 5 groups of 7 objects each (e.g., describe a context in which a total number of objects can be expressed as 5 x 7)]  **2.OA.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; how many are in each group?), or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each; how many groups can you make? (e.g., describe a context in which a number of shares or a number of groups can be expressed as 56 ÷ 8)  **3.OA.3** apply multiplication and division within 100 (products or dividends 0 - 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)  **4.OA.4** determine the unknown whole number in a multiplication or division equation relating three whole numbers using the inverse relationship of multiplication and division (e.g., determine the unknown number that makes the equation true in each of the equations 8 x ? = 48; 5 = ■ ÷ 3, 6 x 6 = ▲)  **12.NBT.3** multiply one-digit whole numbers by multiples of 10 in the range 10 ̶ 90 (e.g., 9 x 80, 5 x 60) using strategies based on place value and properties of operations. | **Vocabulary**  array,  equal groups, equations,  factor,  multiple,  groups of, multiplication,  partial products, product,  dividend,  division,  divisor,  equal groups, equations,  division/repeated subtraction,  partition,  equal shares,  quotient,  unknown | **Textbook Resources**  [Lesson 3: Exploring Division](http://www.hand2mind.com/pdf/hos/hos-cce-online/e78864_HOS_CCE_Grade%203/e78864_CCE_3_OA3.pdf)  [Lesson 4: Meaning of Division](http://www.hand2mind.com/pdf/hos/hos-cce-online/e78864_HOS_CCE_Grade%203/e78864_CCE_3_OA4.pdf)  **McGraw-Hill/ My Math**  **Chapter 6**  Lesson 1-5, 9  **Chapter 5**  Lesson 1-3  **Chapter 7**  Lesson 2  Lesson 5  Lesson 8  **Chapter 8**  Lesson 3  Lesson 6  Lesson 9 |
| **Teacher Resources:**  [**Smart Board Division**](http://exchange.smarttech.com/details.html?id=a010133d-6dc6-4d97-b8fe-8a882fa19d89)  [**Making Arrays**](http://www.haelmedia.com/OnlineActivities_txh/mc_txh3_002.html)  [**Teddy Bears Smart board**](http://exchange.smarttech.com/details.html?id=4fb49d86-9b09-4929-acad-2b277a6aab71)  **Instructional Strategies:**   * Concrete: Similar to multiplication, students use manipulatives like two colored counters, color tiles and snap cubes to act out problem solving situations by making equal groups and arrays given the total number of objects and how many groups should be created OR given the total number of objects and the size of each group being created. * In the sharing model of division (partition model), students will share the tiles one at a time between the groups. In the example below, the student would move a tile to the first group (oval) and then move a tile to the second group (oval). That process is repeated by the student until all tiles have been shared fairly among the groups. | **Assessment**  Check all that apply for the week:  Fact Fluency – YES  TOTD – YES  Quick Check –  Unit Common Assessment # \_\_\_\_  District Assessment # \_\_\_\_ | **Calendar/**  **Number Talks**  Depositor, Patterns, Fact Families,  Daily Array,  Compare and Contrast,  Preview Geometry  **Anchor Charts**  Unit 2 Vocabulary  Fact Families  Multiplication Strategies | **Manipulatives**  Base Ten Blocks  Hundred Chart  Number Lines  Color Tiles  Arrays  **Homework**  Week 4 Spiral  Use your Weekly Spiral HW as desired. Add other differentiated HW to weekly plans. |
| **Quarter – 1st**  **Week - 5 Dates – 9/4/2017**  **Learning Targets**  **Unit – 2 – Multiplication and Division Relationships**   * I can interpret products of whole numbers using repeated addition, array models, and counting by multiples to correctly multiply one digit numbers. * I can interpret whole number quotients of whole numbers to describe in context the models of division: the repeated subtraction model and the sharing model of division. * I can solve word problems using multiplication and division. | **AKS** Represent and solve problems involving multiplication and division. **1.OA.1** interpret products of whole numbers [e.g., interpret 5 x 7 as the total number of objects in 5 groups of 7 objects each (e.g., describe a context in which a total number of objects can be expressed as 5 x 7)]  **2.OA.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; how many are in each group?), or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each; how many groups can you make? (e.g., describe a context in which a number of shares or a number of groups can be expressed as 56 ÷ 8)  **3.OA.3** apply multiplication and division within 100 (products or dividends 0 - 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)  **4.OA.4** determine the unknown whole number in a multiplication or division equation relating three whole numbers using the inverse relationship of multiplication and division (e.g., determine the unknown number that makes the equation true in each of the equations 8 x ? = 48; 5 = ■ ÷ 3, 6 x 6 = ▲)  **12.NBT.3** multiply one-digit whole numbers by multiples of 10 in the range 10 ̶ 90 (e.g., 9 x 80, 5 x 60) using strategies based on place value and properties of operations. | **Vocabulary**  array,  equal groups, equations,  factor,  multiple,  groups of, multiplication,  partial products, product,  dividend,  division,  divisor,  equal groups, equations,  division/repeated subtraction,  partition,  equal shares,  quotient,  unknown | **Textbook Resources**  [Lesson 5: More Division](http://www.hand2mind.com/pdf/hos/hos-cce-online/e78864_HOS_CCE_Grade%203/e78864_CCE_3_OA5.pdf)  [Lesson 6: Multiplication and Division](http://www.hand2mind.com/pdf/hos/hos-cce-online/e78864_HOS_CCE_Grade%203/e78864_CCE_3_OA6.pdf)  **McGraw-Hill/ My Math**  **Chapter 6**  Lesson 1-5, 9  **Chapter 5**  Lesson 1-3  **Chapter 7**  Lesson 2  Lesson 5  Lesson 8  **Chapter 8**  Lesson 3  Lesson 6  Lesson 9 |
| **Teacher Resources:**  [**Operation Snowman**](http://www.harcourtschool.com/activity/operation_snowman/)  [**Operation Thunderstorm**](http://www.hbschool.com/activity/operation_thunderstorm/)  [**Math Playground word problems**](http://www.mathplayground.com/wordproblems.html)  **Instructional Strategies:**   * Concrete: Students will use objects to interpret the information given in the equation in order to find the value of the unknown. For example, students should find the value of the unknown □ in the equation □ x 3 = 21.   **Student 1:** I will put out 21 tiles. If I share them equally among three piles, how many tiles will be in each pile? I will share the tiles one at a time in three equal piles until no tiles are left. (*Student 1 is solving for the unknown group size.*)  **Student 2:**  Let me count out 21 tiles. I wonder how many groups I can make if I put three tiles in a group every time until I have used all the tiles? (*Student 2 is solving for the unknown number of groups.*) | **Assessment**  Check all that apply for the week:  Fact Fluency – YES  TOTD –  Quick Check – YES  Unit Common Assessment # \_\_\_\_  District Assessment # \_\_\_\_ | **Calendar/**  **Number Talks**  Depositor, Patterns, Fact Families,  Daily Array,  Compare and Contrast,  Preview Geometry  **Anchor Charts**  Unit 2 Vocabulary  Fact Families  Multiplication Strategies | **Manipulatives**  Base Ten Blocks  Hundred Chart  Number Lines  Color Tiles  Arrays  **Homework**  Week 5 Spiral  Use your Weekly Spiral HW as desired. Add other differentiated HW to weekly plans. |
| **Quarter – 1st**  **Week - 6 Dates – 9/11/2017**  **Learning Targets**  **Unit – 2 – Multiplication and Division Relationships**   * I can solve word problems using multiplication and division. * I can use a symbol to represent an unknown and determine the value of the unknown in a multiplication or division equation relating three whole numbers. | **AKS** Represent and solve problems involving multiplication and division. **1.OA.1** interpret products of whole numbers [e.g., interpret 5 x 7 as the total number of objects in 5 groups of 7 objects each (e.g., describe a context in which a total number of objects can be expressed as 5 x 7)]  **2.OA.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; how many are in each group?), or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each; how many groups can you make? (e.g., describe a context in which a number of shares or a number of groups can be expressed as 56 ÷ 8)  **3.OA.3** apply multiplication and division within 100 (products or dividends 0 - 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)  **4.OA.4** determine the unknown whole number in a multiplication or division equation relating three whole numbers using the inverse relationship of multiplication and division (e.g., determine the unknown number that makes the equation true in each of the equations 8 x ? = 48; 5 = ■ ÷ 3, 6 x 6 = ▲)  **12.NBT.3** multiply one-digit whole numbers by multiples of 10 in the range 10 ̶ 90 (e.g., 9 x 80, 5 x 60) using strategies based on place value and properties of operations. | **Vocabulary**  array,  equal groups, equations,  factor,  multiple,  groups of, multiplication,  partial products, product,  dividend,  division,  divisor,  equal groups, equations,  division/repeated subtraction,  partition,  equal shares,  quotient,  unknown | **Textbook Resources**  [Lesson 3: Multiply by 10](http://www.hand2mind.com/pdf/hos/hos-cce-online/e78864_HOS_CCE_Grade%203/e78864_CCE_3_NBT3.pdf)  [Lesson 4: Multiplying with Multiples of 10](http://www.hand2mind.com/pdf/hos/hos-cce-online/e78864_HOS_CCE_Grade%203/e78864_CCE_3_NBT4.pdf)  **McGraw-Hill/ My Math**  **Chapter 6**  Lesson 1-5, 9  **Chapter 5**  Lesson 1-3  **Chapter 7**  Lesson 2  Lesson 5  Lesson 8  **Chapter 8**  Lesson 3  Lesson 6  Lesson 9 |
| **Teacher Resources:**  [**Product Game**](http://illuminations.nctm.org/Activity.aspx?id=4213)  [**Missing factor interactive**](http://www.sheppardsoftware.com/mathgames/matching/MultiplicationX.htm)  [**Greg Tang Game Missing**](http://www.gregtangmath.com/missing)  **Instructional Strategies:**   * Semi-Concrete: Student will be able to draw pictures of tiles or counters to determine the unknown product, unknown number of groups or unknown size of the groups. * Semi-Abstract: Students will use repeated subtraction and /or decomposing dividends to find unknown products, unknown number of groups or unknown group size. * Abstract: Students will use knowledge of the inverse relationship between multiplication and division to determine the unknown product, unknown number of groups or the unknown group size. | **Assessment**  Check all that apply for the week:  Fact Fluency – YES  TOTD – YES  Quick Check –  Unit Common Assessment # \_\_\_\_  District Assessment # \_\_\_\_ | **Calendar/**  **Number Talks**  Depositor, Patterns, Fact Families,  Daily Array,  Compare and Contrast,  Preview Geometry  **Anchor Charts**  Unit 2 Vocabulary  Fact Families  Multiplication Strategies | **Manipulatives**  Base Ten Blocks  Hundred Chart  Number Lines  Color Tiles  Arrays  **Homework**  Week 6 Spiral  Use your Weekly Spiral HW as desired. Add other differentiated HW to weekly plans. |

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| **Quarter – 1st**  **Week - 7 Dates – 9/18/2017**  **Learning Targets**  **Unit – 2 – Multiplication and Division Relationships**   * I can solve word problems using multiplication and division. * I can use a symbol to represent an unknown and determine the value of the unknown in a multiplication or division equation relating three whole numbers. | Represent and solve problems involving multiplication and division. **1.OA.1** interpret products of whole numbers [e.g., interpret 5 x 7 as the total number of objects in 5 groups of 7 objects each (e.g., describe a context in which a total number of objects can be expressed as 5 x 7)]  **2.OA.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; how many are in each group?), or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each; how many groups can you make? (e.g., describe a context in which a number of shares or a number of groups can be expressed as 56 ÷ 8)  **3.OA.3** apply multiplication and division within 100 (products or dividends 0 - 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)  **4.OA.4** determine the unknown whole number in a multiplication or division equation relating three whole numbers using the inverse relationship of multiplication and division (e.g., determine the unknown number that makes the equation true in each of the equations 8 x ? = 48; 5 = ■ ÷ 3, 6 x 6 = ▲)  **12.NBT.3** multiply one-digit whole numbers by multiples of 10 in the range 10 ̶ 90 (e.g., 9 x 80, 5 x 60) using strategies based on place value and properties of operations. | **Vocabulary**  array,  equal groups, equations,  factor,  multiple,  groups of, multiplication,  partial products, product,  dividend,  division,  divisor,  equal groups, equations,  division/repeated subtraction,  partition,  equal shares,  quotient,  unknown | **Textbook Resources**  [IM: Finding the unknown in a division problem](https://www.illustrativemathematics.org/content-standards/3/OA/A/4/tasks/1814)  **McGraw-Hill/ My Math**  **Chapter 6**  Lesson 1-5, 9  **Chapter 5**  Lesson 1-3  **Chapter 7**  Lesson 2  Lesson 5  Lesson 8  **Chapter 8**  Lesson 3  Lesson 6  Lesson 9 |
| **Teacher Resources:**  [**Product Game**](http://illuminations.nctm.org/Activity.aspx?id=4213)  [**Missing factor interactive**](http://www.sheppardsoftware.com/mathgames/matching/MultiplicationX.htm)  [**Greg Tang Game Missing**](http://www.gregtangmath.com/missing)  **Instructional Strategies:**   * Semi-Concrete: Student will be able to draw pictures of tiles or counters to determine the unknown product, unknown number of groups or unknown size of the groups. * Semi-Abstract: Students will use repeated subtraction and /or decomposing dividends to find unknown products, unknown number of groups or unknown group size. * Abstract: Students will use knowledge of the inverse relationship between multiplication and division to determine the unknown product, unknown number of groups or the unknown group size.   Georgia Frameworks - [Unit 2](https://www.georgiastandards.org/Georgia-Standards/Frameworks/3rd-Math-Unit-2.pdf) | **Assessment**  Check all that apply for the week:  Fact Fluency – YES  TOTD – YES  Quick Check –  Unit Common Assessment # \_\_\_\_  District Assessment # \_\_\_\_ | **Calendar/**  **Number Talks**  Depositor, Patterns, Fact Families,  Daily Array,  Compare and Contrast,  Preview Geometry  **Anchor Charts**  Unit 2 Vocabulary  Fact Families  Multiplication Strategies | **Manipulatives**  Base Ten Blocks  Hundred Chart  Number Lines  Color Tiles  Arrays  **Homework**  Week 7 Spiral  Use your Weekly Spiral HW as desired. Add other differentiated HW to weekly plans. |

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| **Quarter – 1st**  **Week - 8 Dates – 9/25/2017**  **Learning Targets**  **Unit – 2 – Multiplication and Division Relationships**   * I can solve draw a scaled picture graph and a scaled bar graph to represent a data set. * I can solve one- and two-step "how many more" and "how any less" problems using information presented in scaled bar graphs | **AKS**  **Represent and interpret data.**  **24.MD.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 any less" problems using information presented in scaled bar graphs (e.g., draw a bar graph in which each square in the bar graph might represent 5 pets) | **Vocabulary**  Bar graphs  Data  Interval  Line plot  Pictograph  Scale  Data  Interval  Table  Tally chart  Venn diagram  x-axis  y-axis | **Textbook Resources**  [Lesson 8: Bar Graphs](http://www.hand2mind.com/pdf/hos/hos-cce-online/e78864_HOS_CCE_Grade%203/e78864_CCE_3_MD8.pdf)  [3-23 Scaled Graphs](http://manager.classworks.com/gwinnett.k12.ga.us/practice/#/unit/6763/cad43441966d2324b3e1148fc897eec6)  **McGraw-Hill/ My Math**  **Chapter 12**  Lesson 1  Lesson 2  Lesson 3  Lesson 4 |
| **Teacher Resources:**   * Provide examples of both categorical and numerical data sets and have students determine which graph organizes the data best. * Bring graphs in from home (newspaper, magazines, etc.) and determine which type of data each represents. * Create anchor charts for the classroom to serve as visual reminders about which type of graph represents the type of data (categorical or numerical). * Represent the same data set in two different graphs and compare the data: Will the different graphs provide the same information? (i.e. bar graph vs. pictograph)   Georgia Frameworks - [Unit 2](https://www.georgiastandards.org/Georgia-Standards/Frameworks/3rd-Math-Unit-2.pdf) | **Assessment**  Check all that apply for the week:  Fact Fluency – YES  TOTD – YES  Unit Common Assessment # \_\_\_\_  District Assessment # \_\_\_\_ | **Calendar/**  **Number Talks**  Depositor, Patterns, Fact Families,  Daily Array,  Compare and Contrast,  Preview Geometry  **Anchor Charts**  Unit 2 Vocabulary  Fact Families  Multiplication Strategies | **Manipulatives**  Base Ten Blocks  Hundred Chart  Number Lines  Color Tiles  Arrays  **Homework**  Week 8 Spiral  Use your Weekly Spiral HW as desired. Add other differentiated HW to weekly plans. |

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| **Quarter – 1st**  **Week - 9 Dates – 10/2/2017**  **Learning Targets**  **Unit – 2 – Multiplication and Division Relationships**   * I can solve draw a scaled picture graph and a scaled bar graph to represent a data set. * I can solve one- and two-step "how many more" and "how any less" problems using information presented in scaled bar graphs | **AKS**  **Represent and interpret data.**  **24.MD.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 any less" problems using information presented in scaled bar graphs (e.g., draw a bar graph in which each square in the bar graph might represent 5 pets) | **Vocabulary**  Bar graphs  Data  Interval  Pictograph  Scale  Data  Table  x-axis  y-axis | **McGraw-Hill/ My Math**  **Chapter 12**  Lesson 1  Lesson 2  Lesson 3  Lesson 4 |
| **Teacher Resources:**   * Provide examples of both categorical and numerical data sets and have students determine which graph organizes the data best. * Bring graphs in from home (newspaper, magazines, etc.) and determine which type of data each represents. * Create anchor charts for the classroom to serve as visual reminders about which type of graph represents the type of data (categorical or numerical). * Represent the same data set in two different graphs and compare the data: Will the different graphs provide the same information? (i.e. bar graph vs. pictograph)   Georgia Frameworks - [Unit 2](https://www.georgiastandards.org/Georgia-Standards/Frameworks/3rd-Math-Unit-2.pdf) | **Assessment**  Check all that apply for the week:  Fact Fluency – YES  TOTD –  Quick Check –  Unit Common Assessment – Unit 2 - [3rd Grade Unit 2 (Word)](https://instruction.gwinnett.k12.ga.us/content/enforced/58323-MathCommCtr/IRC%202016-2017/ES/Third%20Grade/3rd%20Grade%20Unit%202.docx?_&d2lSessionVal=nEQlUcE17N9DbgCyblrbdwCaT&ou=58323)  District Assessment -Ist nine weeks benchmark | **Calendar/**  **Number Talks**  Depositor, Patterns, Fact Families,  Daily Array,  Compare and Contrast,  Preview Geometry  **Anchor Charts**  Unit 2 Vocabulary  Fact Families  Multiplication Strategies | **Manipulatives**  Base Ten Blocks  Hundred Chart  Number Lines  Color Tiles  Arrays  **Homework**  Week 9 Spiral  Use your Weekly Spiral HW as desired. Add other differentiated HW to weekly plans. |





Third Grade Math Framework – 2nd Nine Weeks 2017-2018

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| **Quarter – 2nd**  **Week - 10 Dates – 10/9/2017**  **Learning Targets**  **Unit – 3- Multiplication and Division Properties**   * I can draw an array help us think about different ways to decompose a number. * I can show order of the digits in a multiplication problem do not affect the product. * I can understand the commutative property help us create arrays * I can understand the distributive property help us multiply large numbers. | **AKS**  **Unit 3: Multiplication and Division Properties (2 weeks)**  **Understand properties of multiplication and the relationship between multiplication and division.**  **5.OA.5** apply commutative, associative, and distributive properties as strategies to multiply and divide (e.g., If 6 x 4 = 24 is known, then 4 x 6 = 24 is also known (commutative property of multiplication); 3 x 5 x 2 can be found by 3 x 5 = 15, then 15 x 2 = 30, or by 5 x 2 = 10, then 3 x 10 = 30 (associative property of multiplication), knowing that 8 x 5 = 40 and 8 x 2 = 16, then one can find 8 x 7 as 8 x (5 + 2) = (8 x 5) + (8 x 2) = 40 + 16 = 56 (distributive property))  **6.OA.6** understand division as an unknown-factor problem (e.g., find 32 ÷ 8 by finding the number that makes 32 when multiplied by 8) Multiply and divide within 1007.OA.7 fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 x 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. | **Vocabulary**   |  | | --- | | Associative Property  Commutative Property  distributive property | | doubling\* | | factor\* | | identity property of X | | input/output table | | multiple | | multiplication (X)\* | | partial product | | product\* | | repeated addition | | symbol | | variable | | **Textbook Resources**  [Lesson 6: Multiplication and Division](http://www.hand2mind.com/pdf/hos/hos-cce-online/e78864_HOS_CCE_Grade%203/e78864_CCE_3_OA6.pdf)  [Lesson 7: Commutative Property of Multiplication](http://www.hand2mind.com/pdf/hos/hos-cce-online/e78864_HOS_CCE_Grade%203/e78864_CCE_3_OA7.pdf)  **McGraw-Hill/ My Math**  **Chapter 7**  Lesson 1 (Commutative)  Lesson 3 (Distributive)  Lesson 4 (Distributive)  **Chapter 8**  Lesson 1 (Distributive)  Lesson 2 (Distributive)  Lesson 4 (Distributive)  Lesson 8 (Distributive)  **Chapter 9**  Lesson 1 (Distributive)  Lesson 2 (Distributive)  Lesson 3 (Associative)  Lesson 4 (Associative) |
| **Teacher Resources:**  [**Break apart-Distributive game**](http://www.gregtangmath.com/breakapart)  [**Smart Board Multiplication Properties**](http://exchange.smarttech.com/details.html?id=ccace35b-e0f0-4f6d-aeb8-55cec32e516f)  **Concrete:** Students should be constructing and deconstructing arrays with colored tiles.  **Semi-concrete:** Students should be drawing arrays and “pulling” them apart. | **Assessment**  Check all that apply for the week:  Fact Fluency – YES  TOTD –  Quick Check – YES  Unit Common Assessment # \_\_\_\_  District Assessment # \_\_\_\_ | **Calendar/**  **Number Talks**  Patterns, Time, Money, Arrays, Line Plots, Fractions, Length Measurement  **Anchor Charts**  Associative, Commutative, and Distributive Properties | **Manipulatives**  Base Ten Blocks  Color Tiles  Snap Cubes  Clocks  **Homework**  Week 10 Spiral  Use your Weekly Spiral HW as desired. Add other differentiated HW to weekly plans. |

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| **Quarter – 2nd**  **Week - 11 Dates – 10/16/2017**  **Learning Targets**  **Unit – 3- Multiplication and Division Properties**   * I can draw an array help us think about different ways to decompose a number. * I can show order of the digits in a multiplication problem do not affect the product. * I can understand the commutative property help us create arrays * I can understand the distributive property help us multiply large numbers. | **AKS**  **Unit 3: Multiplication and Division Properties (2 weeks)**  **Understand properties of multiplication and the relationship between multiplication and division.**  **5.OA.5** apply commutative, associative, and distributive properties as strategies to multiply and divide (e.g., If 6 x 4 = 24 is known, then 4 x 6 = 24 is also known (commutative property of multiplication); 3 x 5 x 2 can be found by 3 x 5 = 15, then 15 x 2 = 30, or by 5 x 2 = 10, then 3 x 10 = 30 (associative property of multiplication), knowing that 8 x 5 = 40 and 8 x 2 = 16, then one can find 8 x 7 as 8 x (5 + 2) = (8 x 5) + (8 x 2) = 40 + 16 = 56 (distributive property))  **6.OA.6** understand division as an unknown-factor problem (e.g., find 32 ÷ 8 by finding the number that makes 32 when multiplied by 8) Multiply and divide within 1007.OA.7 fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 x 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. | **Vocabulary**   |  | | --- | | Associative Property  Commutative Property  distributive property | | doubling\* | | factor\* | | identity property of X | | input/output table | | multiple | | multiplication (X)\* | | partial product | | product\* | | repeated addition | | symbol | | variable | | **Textbook Resources**  [Lesson 8: Associative Property of Multiplication](http://www.hand2mind.com/pdf/hos/hos-cce-online/e78864_HOS_CCE_Grade%203/e78864_CCE_3_OA8.pdf)  [Lesson 9: Distributive Property](http://www.hand2mind.com/pdf/hos/hos-cce-online/e78864_HOS_CCE_Grade%203/e78864_CCE_3_OA9.pdf)  **McGraw-Hill/ My Math**  **Chapter 7**  Lesson 1 (Commutative)  Lesson 3 (Distributive)  Lesson 4 (Distributive)  **Chapter 8**  Lesson 1 (Distributive)  Lesson 2 (Distributive)  Lesson 4 (Distributive)  Lesson 8 (Distributive)  **Chapter 9**  Lesson 1 (Distributive)  Lesson 2 (Distributive)  Lesson 3 (Associative)  Lesson 4 (Associative) |
| **Teacher Resources:**  [Distributive smart board](http://exchange.smarttech.com/details.html?id=67337f79-f549-4592-959f-5e208e7f4153)  [Decompose your factor](http://www.k-5mathteachingresources.com/support-files/decompose-a-factor-ver.1.pdf)  [The Commutative Cookie](http://www.uen.org/Lessonplan/preview.cgi?LPid=11051)  [The Wheel Shop](http://insidemathematics.org/problems-of-the-month/pom-thewheelshop.pdf) (Level A and B) All Properties(Performance Task)  Distributive Property - Supply students with several sheets of centimeter grid paper. Assign each pair of students a product such as 6 x 8. (Products can vary across the class or all be the same.) The task is to find all of the different ways to make a single slice through the rectangle. For each slice students write an equation. For slice of one row of 8, students would write 6 x 8 = 5 x 8 + 1 x 8. The individual products can be written in array form. | **Assessment**  Check all that apply for the week:  Fact Fluency – YES  TOTD – YES  Quick Check –  Unit Common Assessment # \_\_\_\_  District Assessment # \_\_\_\_ | **Calendar/**  **Number Talks**  Patterns, Time, Money, Arrays, Line Plots, Fractions, Length Measurement  **Anchor Charts**  Associative, Commutative, and Distributive Properties | **Manipulatives**  Base Ten Blocks  Color Tiles  Snap Cubes  Clocks  **Homework**  Week 11 Spiral  Use your Weekly Spiral HW as desired. Add other differentiated HW to weekly plans. |
| **Quarter – 2nd**  **Week - 12 Dates – 10/23/2017**  **Learning Targets**  **Unit 4: Addition and Multiplication Patterns**  **Unit – 4 Addition and Multiplication Patterns**   * I can use a variety of strategies to solve problems. * I can explain the reasonableness of answers using mental computation and estimation strategies, including rounding. | **AKS**  **Solve problems involving the**  **four operations, and identify**  **and explain patterns in**  **arithmetic**  **8.OA.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. This standard is limited to problems posed with whole numbers and having whole number answers; students should perform operations in appropriate order according to the context of the problem  **9.OA.9** identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations (e.g., observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends) | **Vocabulary**   |  | | --- | | Associative Property  Commutative Property  distributive property | | doubling\* | | factor\* | | identity property of X |   estimation  rounding  order of operations, estimation, variable,  unknown,  equation | **Textbook Resources**  [3-7 Equations with Variables](http://manager.classworks.com/gwinnett.k12.ga.us/practice/#/unit/6747/cad43441966d2324b3e1148fc897eec6)  [3-8 Equations with Variables](http://manager.classworks.com/gwinnett.k12.ga.us/practice/#/unit/6748/cad43441966d2324b3e1148fc897eec6)  ***McGraw-Hill/ My Math***  **Chapter 3**  Lesson 3  **Chapter 8**  Lesson 7  **Chapter 9**  Lesson 6  Lesson 7  Lesson 8 |
| **Teacher Resources:**  Performance Based Task: [Squirreling It Away](http://insidemathematics.org/problems-of-the-month/pom-squirrelingitaway.pdf)  Student practice: [Two Step Word Problems Set 1](http://www.k-5mathteachingresources.com/support-files/3rdgrademultistepproblems.pdf)  [Two Step Word Problems Set 2](http://www.k-5mathteachingresources.com/support-files/two-step-word-problems-set-2.pdf)  [3OA.8 Word Problems](https://grade3commoncoremath.wikispaces.hcpss.org/file/view/teach_share_homework_3OA8.pdf/393640754/teach_share_homework_3OA8.pdf)  [Big Top Caper](http://teacher.scholastic.com/maven/bigtop/index.htm)  [Multistep word problems](http://mrnussbaum.com/grade_3_standardswordproblemstep/)  **Concrete**: Students need to use manipulatives like color tiles or snap cubes to create arrays and/or equal groups so that they can physically decompose, regroup or reorder the factors, products or quotients.  **Representational**: Students will need to draw a visual of the problem in order to see how one of the properties can be used to find the quotient in a friendlier way.  **Abstract**: Students will independently apply one of the properties of operations in order to solve the problem in a friendlier fashion | **Assessment**  Check all that apply for the week:  Fact Fluency – YES  TOTD –  Quick Check –  Unit Common Assessment – Unit 3 - [3rd Grade Unit 3 (Word)](https://instruction.gwinnett.k12.ga.us/content/enforced/58323-MathCommCtr/IRC%202016-2017/ES/Third%20Grade/3rd%20Grade%20Unit%203.docx?_&d2lSessionVal=xNx4rVIjfHcPnj052KydbLfLJ&ou=58323)  District Assessment # \_\_\_\_ | **Calendar/**  **Number Talks**  Patterns, Time, Money, Arrays, Line Plots, Fractions, Length Measurement,  Area, Rounding  **Anchor Charts**  Associative, Commutative, and Distributive Properties  Estimation  Number talks | **Manipulatives**  Base Ten Blocks  Color Tiles  Snap Cubes  Clocks  **Homework**  Week 12 Spiral  Use your Weekly Spiral HW as desired. Add other differentiated HW to weekly plans. |

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| **Quarter – 2nd**  **Week - 13 Dates – 10/30/2017**  **Learning Targets**  **Unit 4: Addition and Multiplication Patterns**   * I can use a variety of strategies to solve problems. * I can explain the reasonableness of answers using mental computation and estimation strategies, including rounding. | **AKS**  **Solve problems involving the**  **four operations, and identify**  **and explain patterns in**  **arithmetic**  **8.OA.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. This standard is limited to problems posed with whole numbers and having whole number answers; students should perform operations in appropriate order according to the context of the problem  **9.OA.9** identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations (e.g., observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends) | **Vocabulary**   |  | | --- | | Associative Property  Commutative Property  distributive property | | doubling\* | | factor\* | | identity property of X |   estimation  rounding  order of operations, estimation, variable,  unknown,  equation | **Textbook Resources**  [3-7 Equations with Variables](http://manager.classworks.com/gwinnett.k12.ga.us/practice/#/unit/6747/cad43441966d2324b3e1148fc897eec6)  [3-8 Equations with Variables](http://manager.classworks.com/gwinnett.k12.ga.us/practice/#/unit/6748/cad43441966d2324b3e1148fc897eec6)  ***McGraw-Hill/ My Math***  **Chapter 3**  Lesson 3  **Chapter 8**  Lesson 7  **Chapter 9**  Lesson 6  Lesson 7  Lesson 8 |
| **Teacher Resources:**  [**Math Hoops**](http://www.mathplayground.com/mathhoops_Z1.html)  [**Grand Slam Math**](http://www.mathplayground.com/gsmbegin.html)  [**Word Problems with Katie**](http://www.mathplayground.com/katiebegin.html)  **Performance Based Task:** [**Houses in a Row**](http://insidemathematics.org/common-core-math-tasks/3rd-grade/3-2006%20Houses%20in%20a%20Row.pdf)  **Concrete**: Students need to use manipulatives like color tiles or snap cubes to create arrays and/or equal groups so that they can physically decompose, regroup or reorder the factors, products or quotients.  **Representational**: Students will need to draw a visual of the problem in order to see how one of the properties can be used to find the quotient in a friendlier way.  **Abstract**: Students will independently apply one of the properties of operations in order to solve the problem in a friendlier fashion | **Assessment**  Check all that apply for the week:  Fact Fluency – YES  TOTD – YES  Quick Check –  Unit Common Assessment # \_\_\_\_  District Assessment # \_\_\_\_ | **Calendar/**  **Number Talks**  Patterns, Time, Money, Arrays, Line Plots, Fractions, Length Measurement,  Area, Rounding  **Anchor Charts**  Associative, Commutative, and Distributive Properties  Estimation  Number talks | **Manipulatives**  Base Ten Blocks  Color Tiles  Snap Cubes  Centimeter White Boards  Number Lines  **Homework**  Week 13 Spiral  Use your Weekly Spiral HW as desired. Add other differentiated HW to weekly plans. |

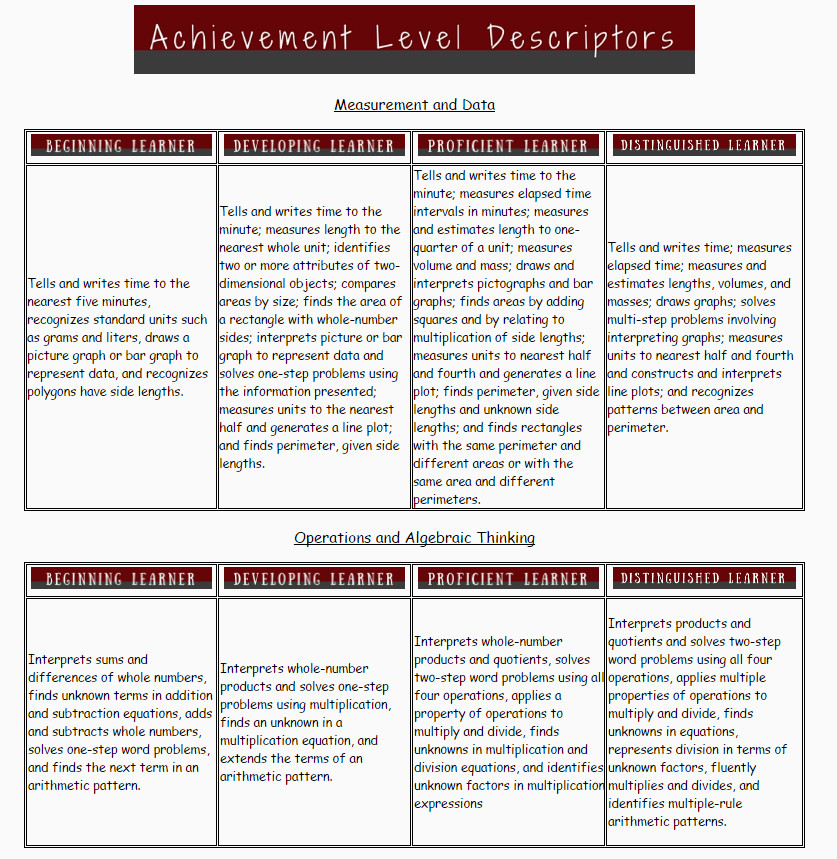
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| **Quarter – 2nd**  **Week - 14 Dates – 11/6/2017**  **Learning Targets**  **Unit 4: Addition and Multiplication Patterns**   * I can solve and represent two-step word problems using the four operations, and represent with a letter standing for the unknown quantity. * I can explain patterns using properties of operations. | **AKS**  **Solve problems involving the**  **four operations, and identify**  **and explain patterns in**  **arithmetic**  **8.OA.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. This standard is limited to problems posed with whole numbers and having whole number answers; students should perform operations in appropriate order according to the context of the problem  **9.OA.9** identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations (e.g., observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends) | **Vocabulary**   |  | | --- | | Associative Property  Commutative Property  distributive property | | doubling\* | | factor\* | | identity property of X |   estimation  rounding  order of operations, estimation, variable,  unknown,  equation | **Textbook Resources**  [3-9 Arithmetic Patterns Using Properties of Operations](http://manager.classworks.com/gwinnett.k12.ga.us/practice/#/unit/6749/cad43441966d2324b3e1148fc897eec6)  [3-10 Arithmetic Patterns Using Properties of Operations](http://manager.classworks.com/gwinnett.k12.ga.us/practice/#/unit/6750/cad43441966d2324b3e1148fc897eec6)  **McGraw-Hill/ My Math**  **Chapter 2**  Lesson 2  Lesson 3  **Chapter 6**  Lesson 1 |
| **Teacher Resources:**  **Lesson seeds:**  Students need to see that numbers can be represented in many different ways. Give a prompt such as: The answer is 12. What is the question? How many different ways can you make 50? Use all four operations.  **Use Pass the Problem**. Put students in groups of four. Give them a number and ask them to make the number is as many ways as they can. They pass the paper from person to person. Give them 3 minutes to complete this. Compare the answers from the different groups.  **Roll the missing number:**  Students roll a number that could be missing from an equation. For example, a student could roll the number 4. They could then create the equation 15 – 7 = 12 - n. In this example, the “4” is missing from the equation.  Problem Solving There are 24 students in Ms. Sanchez’s class, 26 students in Mrs. Frick’s class and 30 students in Ms. Brown's class. If there are 75 cupcakes, are there enough cupcakes for each student to have one?  Separate problems the students are presented with the whole, or the largest amount.  Claudia had 19 marbles. She gave some to Heather. Now she has 16 marbles. How many marbles did she give to Heather?  Include the three types of subtraction problems. 1. How many more? 2. Comparison 3. How many less? | **Assessment**  Check all that apply for the week:  Fact Fluency – YES  TOTD – YES  Quick Check –  Unit Common Assessment # \_\_\_\_  District Assessment # \_\_\_\_ | **Calendar/**  **Number Talks**  Patterns, Time, Money, Arrays, Line Plots, Fractions, Length Measurement,  Area, Rounding  **Anchor Charts**  Addition Patterns  Multiplication Patterns  Arrays, Area  Estimation  Number talks | **Manipulatives**  Base Ten Blocks  Color Tiles  Snap Cubes  Centimeter White Boards  Number Lines  **Homework**  Week 14 Spiral  Use your Weekly Spiral HW as desired. Add other differentiated HW to weekly plans. |

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| **Quarter – 2nd**  **Week - 15 Dates – 11/13/2017**  **Learning Targets**  **Unit 4: Addition and Multiplication Patterns**   * I can solve and represent two-step word problems using the four operations, and represent with a letter standing for the unknown quantity. * I can explain patterns using properties of operations. | **AKS**  **Solve problems involving the**  **four operations, and identify**  **and explain patterns in**  **arithmetic**  **8.OA.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. This standard is limited to problems posed with whole numbers and having whole number answers; students should perform operations in appropriate order according to the context of the problem  **9.OA.9** identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations (e.g., observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends) | **Vocabulary**   |  | | --- | | Associative Property  Commutative Property  distributive property | | doubling\* | | factor\* | | identity property of X |   estimation  rounding  order of operations, estimation, variable,  unknown,  equation | **Textbook Resources**  [3-9 Arithmetic Patterns Using Properties of Operations](http://manager.classworks.com/gwinnett.k12.ga.us/practice/#/unit/6749/cad43441966d2324b3e1148fc897eec6)  [3-10 Arithmetic Patterns Using Properties of Operations](http://manager.classworks.com/gwinnett.k12.ga.us/practice/#/unit/6750/cad43441966d2324b3e1148fc897eec6)  **McGraw-Hill/ My Math**  **Chapter 2**  Lesson 2  Lesson 3  **Chapter 6**  Lesson 1 |
| **Teacher Resources:**  [IM: The Stamp Collection](https://www.illustrativemathematics.org/content-standards/3/OA/D/8/tasks/13)  [IM: The Class Trip](https://www.illustrativemathematics.org/content-standards/3/OA/D/8/tasks/1301)  [IM: Addition Patterns](https://www.illustrativemathematics.org/content-standards/3/OA/D/9/tasks/953)  [IM: Symmetry of the Addition Table](https://www.illustrativemathematics.org/content-standards/3/OA/D/9/tasks/954)  [IM: Making a Ten](https://www.illustrativemathematics.org/content-standards/3/OA/D/9/tasks/955)  [IM: Patterns in the Multiplication Table](https://www.illustrativemathematics.org/content-standards/3/OA/D/9/tasks/956)  https://instruction.gwinnett.k12.ga.us/content/enforced/58323-MathCommCtr/IRC%202016-2017/Images%20for%20IRC/Categories/Frameworks%20Dots.jpg?_&d2lSessionVal=xNx4rVIjfHcPnj052KydbLfLJ&ou=58323  [Unit 3](https://www.georgiastandards.org/Georgia-Standards/Frameworks/3rd-Math-Unit-3.pdf) | **Assessment**  Check all that apply for the week:  Fact Fluency – YES  TOTD – YES  Quick Check –  Unit Common Assessment # \_\_\_\_  District Assessment # \_\_\_\_ | **Calendar/**  **Number Talks**  Patterns, Time, Line Plots, Fractions, Length Measurement,  Area, Rounding, Bar Graphs  **Anchor Charts**  Addition Patterns  Multiplication Patterns  Arrays, Area  Estimation  Number talks  Bar Graphs | **Manipulatives**  Base Ten Blocks  Color Tiles  Snap Cubes  Centimeter White Boards  Number Lines  Hundred Charts  **Homework**  Week 15 Spiral  Use your Weekly Spiral HW as desired. Add other differentiated HW to weekly plans. |

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| **Quarter – 2nd – 11/20 – 11/25 – NO SCHOOL**  **Week - 16 Dates – 11/27/2017**  **Learning Targets**  **Unit – 4 Addition and Multiplication Patterns**   * I can find the area of a rectilinear figure. * I can determine the area of squares and rectangles. | **AKS** Geometric measurement: understand concepts of area and relate area to multiplication and to addition. **26.MD.5** recognize area as an attribute of plane figures and understand concepts of area measurement.  **27.MD.5\_a.** use words, pictures and/or numbers to show that "unit square" is a square with a side length of 1 unit, has an area of one square unit, and can be used to measure area of plane figures.  **28.MD.5\_b.** demonstrate that 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.  **29.MD.6** measure areas by counting unit squares (e.g., square cm, square m, square in, square ft, and improvised units) | **Vocabulary**  Area  Array  Square unit  tiling | **Textbook Resources**  [Lesson 9: Finding Area](http://www.hand2mind.com/pdf/hos/hos-cce-online/e78864_HOS_CCE_Grade%203/e78864_CCE_3_MD9.pdf)  [Lesson 11: Area of Squares](http://www.hand2mind.com/pdf/hos/hos-cce-online/e78864_HOS_CCE_Grade%203/e78864_CCE_3_MD11.pdf)  ***McGraw-Hill/ My Math***  **Chapter 13**  Lesson 3  Lesson 4 |
| **Teacher Resources:**  **Performance Based Task:**  [**Garden Design**](http://insidemathematics.org/common-core-math-tasks/3rd-grade/3-2006%20Garden%20Design.pdf)  [**Twelve at a Time**](http://mixinginmath.terc.edu/materials/gameboards_pdfs/TwelveataTime.pdf)  [**Interactive Area**](http://www.shodor.org/interactivate/activities/AreaExplorer/)  [**Area on geoboard**](http://www.k-5mathteachingresources.com/support-files/area-on-the-geoboard.pdf)  [**Area cards**](http://www.k-5mathteachingresources.com/support-files/rectangularareacards.pdf)  Give students color tiles and ask them to find the area of objects in the classroom, such as a book. They should estimate how many tiles are needed to cover the object and then cover the object and count the number of tiles used.  To help children see that different figures can have the same area, ask them to use twelve color tiles to see how many different rectangles they can make.  Ask students to draw a shape on their 2 cm grid paper that has an area of 18. Have students compare their figure with another figure and describe how the figures are different. Repeat this process with a different area such as 24 or 36. | **Assessment**  Check all that apply for the week:  Fact Fluency – YES  TOTD –  Quick Check –  Unit Common Assessment – Unit 4 - [3rd Grade: Unit 4 (Word)](https://instruction.gwinnett.k12.ga.us/content/enforced/58323-MathCommCtr/IRC%202016-2017/ES/Third%20Grade/3rd%20Grade%20Unit%204.docx?_&d2lSessionVal=xNx4rVIjfHcPnj052KydbLfLJ&ou=58323)  District Assessment # \_\_\_\_ | **Calendar/**  **Number Talks**  Patterns, Time, Line Plots, Fractions, Length Measurement,  Area, Rounding, Bar Graphs  **Anchor Charts**  Addition Patterns  Multiplication Patterns  Arrays, Area  Estimation  Number talks  Bar Graphs | **Manipulatives**  Base Ten Blocks  Color Tiles  Snap Cubes  Centimeter White Boards  Number Lines  Hundred Charts  **Homework**  Week 16 Spiral  Use your Weekly Spiral HW as desired. Add other differentiated HW to weekly plans. |

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| **Quarter – 2nd**  **Week - 17 Dates – 12/4/2017**  **Learning Targets**  **Unit – 4 Addition and Multiplication Patterns**   * I can find the area of a rectilinear figure. * I can determine the area of squares and rectangles. | **AKS** Geometric measurement: understand concepts of area and relate area to multiplication and to addition. **26.MD.5** recognize area as an attribute of plane figures and understand concepts of area measurement.  **27.MD.5\_a.** use words, pictures and/or numbers to show that "unit square" is a square with a side length of 1 unit, has an area of one square unit, and can be used to measure area of plane figures.  **28.MD.5\_b.** demonstrate that 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.  **29.MD.6** measure areas by counting unit squares (e.g., square cm, square m, square in, square ft, and improvised units) | **Vocabulary**  Area  Array  Square unit  tiling | **Textbook Resources**  [Lesson 12: Area of Rectangles](http://www.hand2mind.com/pdf/hos/hos-cce-online/e78864_HOS_CCE_Grade%203/e78864_CCE_3_MD12.pdf)  [Lesson 13: Building Area](http://www.hand2mind.com/pdf/hos/hos-cce-online/e78864_HOS_CCE_Grade%203/e78864_CCE_3_MD13.pdf)  ***McGraw-Hill/ My Math***  **Chapter 13**  Lesson 3  Lesson 4 |
| **Teacher Resources:**  [**What’s My Area**](http://illuminations.nctm.org/Lesson.aspx?id=4139)[**Engage NY: Grade 3, Module 4; Lessons 3-5**](http://www.engageny.org/sites/default/files/resource/attachments/g3-m4-full-module.pdf)  **Performance Based Task:** [**Surrounded and Covered**](http://insidemathematics.org/problems-of-the-month/pom-surroundedandcovered.pdf) **(Level A)**  **Student Practice:** [**Find the Area**](http://www.k-5mathteachingresources.com/support-files/find-the-area.pdf)[**Area Compare**](http://www.k-5mathteachingresources.com/support-files/area-compare.pdf)  Give students color tiles and ask them to find the area of objects in the classroom, such as a book. They should estimate how many tiles are needed to cover the object and then cover the object and count the number of tiles used.  To help children see that different figures can have the same area, ask them to use twelve color tiles to see how many different rectangles they can make.  Ask students to draw a shape on their 2 cm grid paper that has an area of 18. Have students compare their figure with another figure and describe how the figures are different. Repeat this process with a different area such as 24 or 36. | **Assessment**  Check all that apply for the week:  Fact Fluency – YES  TOTD –  Quick Check –  Unit Common Assessment # \_\_\_\_  District Assessment - Semester 1 | **Calendar/**  **Number Talks**  Patterns, Time, Line Plots, Fractions, Length Measurement,  Area, Rounding, Bar Graphs  **Anchor Charts**  Addition Patterns  Multiplication Patterns  Arrays, Area  Estimation  Number talks  Bar Graphs | **Manipulatives**  Base Ten Blocks  Color Tiles  Snap Cubes  Centimeter White Boards  Number Lines  Hundred Charts  **Homework**  Week 17 Spiral  Use your Weekly Spiral HW as desired. Add other differentiated HW to weekly plans. |

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| **Quarter – 2nd**  **Week - 18 Dates – 8/11/2017 – 12/20/2017**  **Learning Targets**  **Unit – 4 Addition and Multiplication Patterns**   * I can we use words, pictures, and/or numbers to figure out the area of plane figures. * I can measure area. | **AKS** Geometric measurement: understand concepts of area and relate area to multiplication and to addition. **26.MD.5** recognize area as an attribute of plane figures and understand concepts of area measurement.  **27.MD.5\_a.** use words, pictures and/or numbers to show that "unit square" is a square with a side length of 1 unit, has an area of one square unit, and can be used to measure area of plane figures.  **28.MD.5\_b.** demonstrate that 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.  **29.MD.6** measure areas by counting unit squares (e.g., square cm, square m, square in, square ft, and improvised units) | **Vocabulary**  Area  Array  Square unit  Tiling  area model  distributive property  additive | **Textbook Resources**  [Lesson 12: Area of Rectangles](http://www.hand2mind.com/pdf/hos/hos-cce-online/e78864_HOS_CCE_Grade%203/e78864_CCE_3_MD12.pdf)  [Lesson 13: Building Area](http://www.hand2mind.com/pdf/hos/hos-cce-online/e78864_HOS_CCE_Grade%203/e78864_CCE_3_MD13.pdf)  ***McGraw-Hill/ My Math***  **Chapter 13**  Lesson 3  Lesson 4 |
| **Teacher Resources:**  **Instructional Support:**  [**What’s My Area**](http://illuminations.nctm.org/Lesson.aspx?id=4139)[**Engage NY: Grade 3, Module 4; Lessons 3-5**](http://www.engageny.org/sites/default/files/resource/attachments/g3-m4-full-module.pdf)  **Performance Based Task:** [**Surrounded and Covered**](http://insidemathematics.org/problems-of-the-month/pom-surroundedandcovered.pdf) **(Level A)**  **Student Practice:** [**Find the Area**](http://www.k-5mathteachingresources.com/support-files/find-the-area.pdf)[**Area Compare**](http://www.k-5mathteachingresources.com/support-files/area-compare.pdf)  No Units: Provide students with pairs of rectangles as follows.  Pair A: 2 x 9 and 3 x 6  Pair B: 1 x 10 and 3 x 5  Pair C : 3 x 8 and 4 x 5  The rectangles should be blank except for the labels. The students' task is to decide for each pair which rectangle has the greater area or if the two are the same size. They are allowed to cut or fold the rectangles in any way they wish, but they must include an explanation for their decision in each pair. Pair C will cause the most difficulty, and you may wish to reserve it as a challenge.  **Problem:** If a rectangle has an area of 24 square inches, what could the length and width be?  **Lesson Seeds:** Give students centimeter grid paper and ask them to draw figures with certain areas. Draw a four-sided figure with an area of 36 square centimeters.  **Good Questions / Problems in Math:**  If a rectangle has an area of 24 square inches, what could the length and width be? | **Assessment**  Check all that apply for the week:  Fact Fluency – YES  TOTD – YES  Quick Check –  Unit Common Assessment # \_\_\_\_  District Assessment # \_\_\_\_ | **Calendar/**  **Number Talks**  Patterns, Time, Line Plots, Fractions, Length Measurement,  Area, Rounding, Bar Graphs  **Anchor Charts**  Addition Patterns  Multiplication Patterns  Arrays, Area  Estimation  Number talks  Bar Graphs | **Manipulatives**  Base Ten Blocks  Color Tiles  Snap Cubes  Centimeter White Boards  Number Lines  Hundred Charts  **Homework**  Week 18 Spiral  Use your Weekly Spiral HW as desired. Add other differentiated HW to weekly plans. |



Third Grade Math Framework – 3rd Nine Weeks 2017-2018

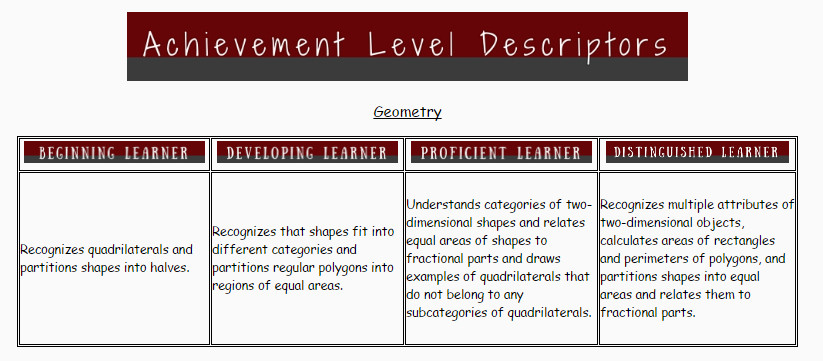
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| **Quarter – 3rd**  **Week - 19 Dates – 1/3- 4, 1/8/2018**  **Learning Targets**  **Unit 5: Geometry**  **Reason with shapes and their attributes**   * I can **identify, draw, examine, and classify** quadrilaterals (including rhombuses, rectangles, squares, parallelogram, and trapezoids). * I can **compare and contrast** the attributes of quadrilaterals. * I can partition shapes with parts with equal areas. * I can draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. * I can solve one- and two-step "how many more" and “how many less" problems using information presented in scaled bar graphs | **AKS**  **Reason with shapes and their attributes**  **35.G.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.  **36.G.2** partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole (e.g., partition a shape into 4 parts with equal area, and describe the area of each part as 1/4 of the area of the shape) Represent and interpret data. **24.MD.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 (e.g., draw a bar graph in which each square in the bar graph might represent 5 pets) | **Vocabulary**  Geometry  Quadrilateral  Rhombus  Rectangle  Square  Parallelogram  Trapezoid  Bar Graph  Data Set  Axis | **Textbook Resources**  [Lesson 1: Categorizing Shapes](http://www.hand2mind.com/pdf/hos/hos-cce-online/e78864_HOS_CCE_Grade%203/e78864_CCE_3_G1.pdf)  [Lesson 2: Partitioning Shapes](http://www.hand2mind.com/pdf/hos/hos-cce-online/e78864_HOS_CCE_Grade%203/e78864_CCE_3_G2.pdf)  [3-23 Scaled Graphs](http://manager.classworks.com/gwinnett.k12.ga.us/practice/#/unit/6763/cad43441966d2324b3e1148fc897eec6)  **McGraw-Hill/ My Math**  **Chapter 14**  Lesson 4  Lesson 5 |
| **Teacher Resources:**  **Instructional Support:** [**Quadrilaterals**](http://www.math.com/school/subject3/lessons/S3U2L3DP.html)[**Quadrilaterals**](http://www.mathsisfun.com/quadrilaterals.html)  [**Sorting Polygons**](http://illuminations.nctm.org/lessonDetail.aspx?id=L277)[**Rectangles and Parallelograms**](http://illuminations.nctm.org/LessonDetail.aspx?id=L350)  **Instructional Support/Student Practice:** [**Quadrilateral Quest**](http://teams.lacoe.edu/documentation/classrooms/amy/geometry/6-8/activities/quad_quest/quad_quest.html)  **Performance Based Task:** [**Which Shape?**](http://insidemathematics.org/common-core-math-tasks/3rd-grade/3-2007%20Which%20Shape.pdf)[**The Shape of Things**](http://insidemathematics.org/problems-of-the-month/pom-theshapeofthings.pdf)  Students should be encouraged to provide details and use proper vocabulary when describing the properties of quadrilaterals. They sort geometric figures (see examples below) and identify squares, rectangles, and rhombuses as quadrilaterals.  Third grade students have built a firm foundation of several shape categories, these categories can be the raw material for thinking about the relationships between classes. Students should classify shapes by attributes and drawing shapes that fit specific categories.  Example: students can form larger categories, such as the class of all shapes with four sides, or quadrilaterals, and recognize that it includes other categories, such as squares, rectangles, rhombuses, parallelograms, and trapezoids. They also recognize that there are quadrilaterals that are not in any of those subcategories. | **Assessment**  Check all that apply for the week:  Fact Fluency – YES  TOTD – YES  Quick Check –  Unit Common Assessment # \_\_\_\_  District Assessment # \_\_\_\_ | **Calendar/**  **Number Talks**  Patterns, Time, Line Plots, Fractions, Length Measurement,  Area, Rounding, Bar Graphs, Perimeter, Liquid Capacity  **Anchor Charts**  Bar Graphs  2D Figures  Quadrilaterals  Triangles  Pictographs | **Manipulatives**  Pattern Blocks  Shapes  Tangrams  Deci Blocks  Geoboards  **Homework**  Week 19 Spiral  Use your Weekly Spiral HW as desired. Add other differentiated HW to weekly plans. |

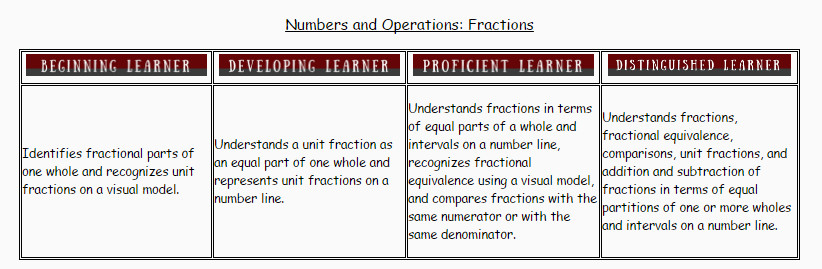
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| **Quarter – 3rd – MLK Holiday – 1/15/18**  **Week - 20 Dates – 1/15/2018**  **Learning Targets**  **Unit – 3 Addition and Subtraction**  **Reason with shapes and their attributes**   * I can **identify, draw, examine, and classify** quadrilaterals (including rhombuses, rectangles, squares, parallelogram, and trapezoids). * I can **compare and contrast** the attributes of quadrilaterals. * I can partition shapes with parts with equal areas. * I can draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. * I can solve one- and two-step "how many more" and “how many less" problems using information presented in scaled bar graphs | **AKS**  **Reason with shapes and their attributes**  **35.G.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.  **36.G.2** partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole (e.g., partition a shape into 4 parts with equal area, and describe the area of each part as 1/4 of the area of the shape) Represent and interpret data. **24.MD.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 (e.g., draw a bar graph in which each square in the bar graph might represent 5 pets) | **Vocabulary**  Geometry  Quadrilateral  Rhombus  Rectangle  Square  Parallelogram  Trapezoid  Bar Graph  Data Set  Axis | **Textbook Resources**  [Lesson 3: Partitioning More Shapes](http://www.hand2mind.com/pdf/hos/hos-cce-online/e78864_HOS_CCE_Grade%203/e78864_CCE_3_G3.pdf)  [3-34 Properties of Shapes](http://manager.classworks.com/gwinnett.k12.ga.us/practice/#/unit/6774/cad43441966d2324b3e1148fc897eec6)  [3-35 Properties of Shapes](http://manager.classworks.com/gwinnett.k12.ga.us/practice/#/unit/6775/cad43441966d2324b3e1148fc897eec6)  [3-36 Equal Parts as Fractions](http://manager.classworks.com/gwinnett.k12.ga.us/practice/#/unit/6776/cad43441966d2324b3e1148fc897eec6)  [Lesson 7: Pictographs](http://www.hand2mind.com/pdf/hos/hos-cce-online/e78864_HOS_CCE_Grade%203/e78864_CCE_3_MD7.pdf)  [Lesson 8: Bar Graphs](http://www.hand2mind.com/pdf/hos/hos-cce-online/e78864_HOS_CCE_Grade%203/e78864_CCE_3_MD8.pdf)  **McGraw-Hill/ My Math**  **Chapter 14**  Lesson 4  Lesson 5 |
| **Teacher Resources:**  [Shape Shoot](http://www.sheppardsoftware.com/mathgames/geometry/shapeshoot/QuadShapesShoot.swf)  [Grouping shapes](http://www.bbc.co.uk/schools/teachers/ks2_activities/maths/activities/shapes.swf)  **Teacher notes:**  **Concrete:** geoboards with geobands, pattern blocks, tangrams  **Semi-Concrete**: precut or die cut two-dimensional shapes  Students sort and classify shapes based on attributes. Students identify and describe properties of two-dimensional shapes in more precise ways using properties that are shared rather than the appearances of individual shapes.  **Representational**: Student drawn shapes that fit specific categories based on given attributes. | **Assessment**  Check all that apply for the week:  Fact Fluency – YES  TOTD –  Quick Check – YES  Unit Common Assessment # \_\_\_\_  District Assessment # \_\_\_\_ | **Calendar/**  **Number Talks**  Patterns, Time, Line Plots, Fractions, Length Measurement,  Area, Rounding, Bar Graphs, Perimeter, Liquid Capacity  **Anchor Charts**  Bar Graphs  2D Figures  Quadrilaterals  Triangles  Pictographs | **Manipulatives**  Pattern Blocks  Shapes  Tangrams  Deci Blocks  Geoboards  **Homework**  Week 20 Spiral  Use your Weekly Spiral HW as desired. Add other differentiated HW to weekly plans. |
| **Quarter – 3rd**  **Week - 21 Dates – 1/22/2018**  **Learning Targets**  **Unit – 6 - Fractions**   * I can model and explain the fraction *a/b* represents *an* equal sized parts and *1/b* when a whole is divided into *b* equal sized parts. * I can model and explain that a fraction *1/b* is the quantity formed by 1 part when a whole is partitioned into *b* equal parts?   [Fraction shapes](https://learnzillion.com/lessons/73-write-fractions-using-shapes-1)  [Fraction partner game](http://www.k-5mathteachingresources.com/support-files/fraction-barrier-game.pdf)  [Fraction center](http://www.k-5mathteachingresources.com/support-files/congruent-eighths.pdf)  [Fraction poster](http://www.k-5mathteachingresources.com/support-files/fraction-posters.pdf)  [Fraction game online](http://www.bbc.co.uk/bitesize/ks2/maths/number/fractions_basic/play/)  [Bowling for fractions online game](http://www.harcourtschool.com/activity/bowling_for_fractions/) | **AKS**  **Develop understanding of fractions as numbers.**  **13.NF.1** understand a fraction 1/b as the quantity formed by 1 part when a whole is partitioned into b equal parts (unit fraction); understand a fraction a/b as the quantity formed by a parts of size 1/b. For example, 3/4 means there are three 1/4 parts, so 3/4 = 1/4+1/4+1/4  **14.NF.2** recognize a fraction as a number on the number line; represent fractions on a number line diagram  **15.NF.2\_a** 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. Recognize that a unit fraction 1/b is located 1/b whole unit from 0 on the number line  **16.NF.2\_b** represent a non-unit fraction a/b on a number line diagram by marking off “a” lengths 1/b (unit fractions) from 0 and recognize that the resulting interval has size a/b and that its endpoint locates the non-unit fraction a/b on the number line | **Vocabulary**  Fraction  Denominator  Numerator  Number Line  Unit-Fraction  *Fractions Literature*  *Polar Bear Math.* Bickel, Cindy and Nagda, Ann Whitehead.  *Fraction Fun.*  Adler, David A.  *Ed Emberley’s Picture Pie: A Circle Drawing Book.*  Emberley, Ed. | **Textbook Resources**  [Lesson 1: Identify and Write Fractions](http://www.hand2mind.com/pdf/hos/hos-cce-online/e78864_HOS_CCE_Grade%203/e78864_CCE_3_NF1.pdf)  [3-11 Understand Fractions](http://manager.classworks.com/gwinnett.k12.ga.us/practice/#/unit/6751/cad43441966d2324b3e1148fc897eec6)  [3-12 Understand Fractions](http://manager.classworks.com/gwinnett.k12.ga.us/practice/#/unit/6752/cad43441966d2324b3e1148fc897eec6)  **McGraw-Hill/ My Math**  **Chapter 10**  Lessons 1 - 8 |
| **Teacher Resources:**  **Concrete**: Students will partition a paper rectangle into six equal pieces (die cut shapes of rectangles or fraction strips could also be used). Students fold and cut the rectangle into six equal pieces. Students lay the pieces on top of each other to see that the pieces are congruent, or equal in size. Discuss with students that it takes six equal sized pieces to make the one rectangle and that one of the six pieces is one sixth of the rectangle. Students label each piece with the fraction one sixth.  **Representational**: Students will draw a rectangle and partition it into six equal pieces. Students will label each piece as one sixth. Below is an example of three different ways students could draw and partition the rectangle into six equal pieces.  **Abstract**: Students are aware of the relationship between the number of equal sized pieces cut and the unit fraction that represents each piece. They are able to name the unit fraction for each piece based on knowing how many equal pieces have been created without using a concrete manipulative or drawing a representation of the rectangle. | **Assessment**  Check all that apply for the week:  Fact Fluency – YES  TOTD –  Quick Check –  Unit Common Assessment – Unit 5 [3rd Grade\_Unit 5 (Word)](https://instruction.gwinnett.k12.ga.us/content/enforced/58323-MathCommCtr/IRC%202016-2017/ES/Third%20Grade/3rd%20Grade%20Unit%205.docx?_&d2lSessionVal=uuaC59A88W4tOurYoLqESkas9&ou=58323)  District Assessment # \_\_\_\_ | **Calendar/**  **Number Talks**  Patterns, Time, Line Plots, Length Measurement,  Area, Rounding, Bar Graphs, Perimeter, Liquid Capacity  **Anchor Charts**  Equivalent Fractions  Fractions on a Number Line  Comparing Fractions  Inequalities | **Manipulatives**  Color Tiles  Fraction Towers  Fraction Circles  Fraction Bars  Number Lines  Pattern Blocks  Deci Blocks  **Homework**  Week 21 Spiral  Use your Weekly Spiral HW as desired. Add other differentiated HW to weekly plans. |
| **Quarter – 3rd**  **Week - 22 Dates – 1/29/2018**  **Learning Targets**  **Unit – 6 - Fractions**   * I can recognize a fraction as a number on the number line? * I can 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? * I can represent a fraction a/b on a number line diagram by marking off "a" lengths 1/b from 0?   [Number line center](http://www.k-5mathteachingresources.com/support-files/fraction-number-lines.pdf)  [Online number line](http://www.bgfl.org/custom/resources_ftp/client_ftp/ks2/maths/fractions/level4.htm)  [Smart board game #line](http://illuminations.nctm.org/Activity.aspx?id=4148) | **AKS**  **Develop understanding of fractions as numbers.**  **13.NF.1** understand a fraction 1/b as the quantity formed by 1 part when a whole is partitioned into b equal parts (unit fraction); understand a fraction a/b as the quantity formed by a parts of size 1/b. For example, 3/4 means there are three 1/4 parts, so 3/4 = 1/4+1/4+1/4  **14.NF.2** recognize a fraction as a number on the number line; represent fractions on a number line diagram  **15.NF.2\_a** 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. Recognize that a unit fraction 1/b is located 1/b whole unit from 0 on the number line  **16.NF.2\_b** represent a non-unit fraction a/b on a number line diagram by marking off “a” lengths 1/b (unit fractions) from 0 and recognize that the resulting interval has size a/b and that its endpoint locates the non-unit fraction a/b on the number line  **25.MD.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 | **Vocabulary**  Fraction  Denominator  Numerator  Number Line  Unit-Fraction  *Fractions Literature*  *Polar Bear Math.* Bickel, Cindy and Nagda, Ann Whitehead.  *Fraction Fun.*  Adler, David A.  *Ed Emberley’s Picture Pie: A Circle Drawing Book.*  Emberley, Ed. | **Textbook Resources**   * [17.NF.3 & 19.NF.3b](https://instruction.gwinnett.k12.ga.us/content/enforced/58323-MathCommCtr/IRC%202016-2017/ES/Third%20Grade/3rd_17NF3and19NF3b.docx?_&d2lSessionVal=uuaC59A88W4tOurYoLqESkas9&ou=58323)- Locating and creating fractions. (Focus: Mini-lesson)   [Lesson 2: Fractions on a Number Line](http://www.hand2mind.com/pdf/hos/hos-cce-online/e78864_HOS_CCE_Grade%203/e78864_CCE_3_NF2.pdf)  [Lesson 3: Proper Fractions on a Number Line](http://www.hand2mind.com/pdf/hos/hos-cce-online/e78864_HOS_CCE_Grade%203/e78864_CCE_3_NF3.pdf)  **McGraw-Hill/ My Math**  **Chapter 10**  Lessons 1 - 8 |
| **Teacher Resources:**  **Concrete:** Students will use manipulatives such as fraction strips or Cuisenaire rods to create number lines that are partitioned into equal sized pieces.  **Representational:**  Students will draw empty number lines on paper or dry erase boards that are partitioned into equal sized pieces. Students need to be taught how to divide a line into equal sized pieces.  **Abstract:** Students visualize a mental picture of a number line and its equal parts, rather than relying on manipulatives or representations of a number line, to determine points on a number line.  *Students need multiple experiences creating and partitioning number lines. Students need to practice starting at zero and jumping from one tick mark to the next, counting the correct interval, which is also referred to as an iteration. As students go through the process, emphasize the difference between counting the tick marks on the number line and counting the spaces between the tick marks on the number line.* | **Assessment**  Check all that apply for the week:  Fact Fluency – YES  TOTD – YES  Quick Check –  Unit Common Assessment # \_\_\_\_  District Assessment # \_\_\_\_ | **Calendar/**  **Number Talks**  Patterns, Time, Line Plots, Length Measurement,  Area, Rounding, Bar Graphs, Perimeter, Liquid Capacity  **Anchor Charts**  Equivalent Fractions  Fractions on a Number Line  Comparing Fractions  Inequalities | **Manipulatives**  Color Tiles  Fraction Towers  Fraction Circles  Fraction Bars  Number Lines  Pattern Blocks  Deci Blocks  **Homework**  Week 22 Spiral  Use your Weekly Spiral HW as desired. Add other differentiated HW to weekly plans. |

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| **Quarter – 3rd**  **Week - 23 Dates – 2/5/2018**  **Learning Targets**  **Unit – 6 - Fractions**   * I can identify, represent, and generate simple equivalent fractions? * I can compare two fractions with the same numerator or denominator using models and reasoning about their size? * I can model and express whole numbers as fractions, and recognize that are equivalent to whole numbers? * ***Grade 3 expectations in this domain are limited to fractions with denominators of 2, 3, 4, 6 and 8*** | **AKS**  **Develop understanding of fractions as numbers.**  **13.NF.1** understand a fraction 1/b as the quantity formed by 1 part when a whole is partitioned into b equal parts (unit fraction); understand a fraction a/b as the quantity formed by a parts of size 1/b. For example, 3/4 means there are three 1/4 parts, so 3/4 = 1/4+1/4+1/4  **14.NF.2** recognize a fraction as a number on the number line; represent fractions on a number line diagram  **15.NF.2\_a** 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. Recognize that a unit fraction 1/b is located 1/b whole unit from 0 on the number line  **16.NF.2\_b** represent a non-unit fraction a/b on a number line diagram by marking off “a” lengths 1/b (unit fractions) from 0 and recognize that the resulting interval has size a/b and that its endpoint locates the non-unit fraction a/b on the number line  **25.MD.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 | **Vocabulary**  Fraction  Denominator  Numerator  Number Line  Unit-Fraction  *Fractions Literature*  *Polar Bear Math.* Bickel, Cindy and Nagda, Ann Whitehead.  *Fraction Fun.*  Adler, David A.  *Ed Emberley’s Picture Pie: A Circle Drawing Book.*  Emberley, Ed. | **Textbook Resources**  [Lesson 4: Model Equivalent Fractions](http://www.hand2mind.com/pdf/hos/hos-cce-online/e78864_HOS_CCE_Grade%203/e78864_CCE_3_NF4.pdf)  [Lesson 5: Equivalent Fractions on a Number Line](http://www.hand2mind.com/pdf/hos/hos-cce-online/e78864_HOS_CCE_Grade%203/e78864_CCE_3_NF5.pdf)  [Lesson 6: Whole Numbers as Fractions](http://www.hand2mind.com/pdf/hos/hos-cce-online/e78864_HOS_CCE_Grade%203/e78864_CCE_3_NF6.pdf)  **McGraw-Hill/ My Math**  **Chapter 10**  Lessons 1 - 8 |
| **Teacher Resources:**  [Fraction slide show](http://www.visualfractions.com/Investigate/identifyi.pdf)  [Creating equivalent fractions online](http://illuminations.nctm.org/Activity.aspx?id=3510)  **Concrete**: Students will use fraction bars to find fractions that are equivalent and understand that equivalent fractions are the same size. Students also use fraction bars to compare fractions by reasoning about their size. The use of fraction bars will help students compare the size of fractions in cases where: the numerators are the same but the denominators are different. The denominators are the same but the numerators are different. Fractions are equivalent in size but have fractional names that are different.  **Representational**: Students will use number lines as a tool to find fractions that are equivalent and understand that equivalent fractions are the same size. Students can also use number lines as a tool to compare fractions by reasoning about their size.  **Abstract-4th grade!!!!**  ***Ideas for Instruction:*** ***Use different models, such as fraction bars and number lines, to allow students to compare unit fractions and visually make the connection between the size of the fraction and the denominator of the fraction.*** | **Assessment**  Check all that apply for the week:  Fact Fluency – YES  TOTD – YES  Quick Check –  Unit Common Assessment # \_\_\_\_  District Assessment # \_\_\_\_ | **Calendar/**  **Number Talks**  Patterns, Time, Line Plots, Length Measurement,  Area, Rounding, Bar Graphs, Perimeter, Liquid Capacity  **Anchor Charts**  Equivalent Fractions  Fractions on a Number Line  Comparing Fractions  Inequalities | **Manipulatives**  Color Tiles  Fraction Towers  Fraction Circles  Fraction Bars  Number Lines  Pattern Blocks  Deci Blocks  **Homework**  Week 23 Spiral  Use your Weekly Spiral HW as desired. Add other differentiated HW to weekly plans. |

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| **Quarter – 3rd**  **Week - 24 Dates – 2/12/2018**  **Learning Targets**  **Unit – 6 Fractions**   * I can express whole numbers as fractions and recognize fractions that are equivalent to whole numbers? * I can compare two fractions with the same numerator or the same denominator by reasoning about their size? * I can recognize that comparisons are valid only when the two fractions refer to the same whole and record the results of comparisons with the symbols >, =, or <? | **AKS**  **17.NF.3** explain equivalence of fractions through reasoning with visual fraction models. Compare fractions by reasoning about their size  **18.NF.3\_a** recognize two fractions as equivalent (equal) if they are the same size or the same point on a number line  **19.NF.3\_b** recognize and generate simple equivalent fractions with denominators of 2, 3, 4, 6, and 8. (e.g., 1/2 = 2/4, 4/6 = 2/3); explain why the fractions are equivalent by using a visual fraction model  **20.NF.3\_c** express whole numbers as fractions and recognize fractions that are equivalent to whole numbers (e.g., express 3 in the form 3 = 6/2 (3 wholes is equal to six halves); recognize that 3/1 = 3; locate 4/4 and 1 at the same point of a number line diagram)  **21.NF.3\_d** 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 and record the results of comparisons with the symbols >, =, or <, and justify the conclusions (e.g., by using a visual fraction model) | **Vocabulary**  Fraction  Denominator  Numerator  Number Line  Unit-Fraction  *Fractions Literature*  *Polar Bear Math.* Bickel, Cindy and Nagda, Ann Whitehead.  *Fraction Fun.*  Adler, David A.  *Ed Emberley’s Picture Pie: A Circle Drawing Book.*  Emberley, Ed. | **Textbook Resources**  [Lesson 7: Comparing Fractions](http://www.hand2mind.com/pdf/hos/hos-cce-online/e78864_HOS_CCE_Grade%203/e78864_CCE_3_NF7.pdf)  [3-16 Compare Fractions](http://manager.classworks.com/gwinnett.k12.ga.us/practice/#/unit/6756/cad43441966d2324b3e1148fc897eec6)  [3-17 Compare Fractions](http://manager.classworks.com/gwinnett.k12.ga.us/practice/#/unit/6757/cad43441966d2324b3e1148fc897eec6)  **McGraw-Hill/ My Math**  **Chapter 10**  Lessons 1 - 8 |
| **Teacher Resources:**  **Technology Resources**  **Instructional Support:** [**Write Fractions Using Shapes**](http://learnzillion.com/lessons/73-write-fractions-using-shapes-1)[**Write Fractions of a Set**](http://learnzillion.com/lessons/75-write-fractions-of-a-set-1)[**Grade 3, Module 5: Fractions As Numbers On The Number Line; Lessons 5-9**](http://www.engageny.org/resource/grade-3-mathematics-module-5)  **Student Practice: Fractions –** [**Parts of a Whole**](http://nlvm.usu.edu/en/nav/frames_asid_102_g_1_t_1.html?from=topic_t_1.html) **Fractions**  **Concrete:** Students use fraction bars to see that whole numbers can be expressed as a variety of equivalent fractions. For example, students can make the whole number three using three fraction bars that are divided into one equal piece. Students need to interpret the whole number three in the model as three whole pieces that are each divided into one equal part. In addition, students use fraction bars to see that whole numbers can equal fractions with a denominator other than one. For example, students can make the whole number three using three fraction bars that are divided into one equal part. Then, students can use one half pieces to see how many one half pieces it takes to make three whole pieces. Using the fraction bars, students can count and determine that it takes six one half pieces, or six halves, to make three whole pieces. Students can be introduced to the idea that the fraction six halves is a fraction that is greater than one using the visual model of the fraction bars. Students should also explore fractions that are equivalent to one. Students can use one fraction bar that is divided into one equal piece and use equal sized pieces to divide the fraction bar. In the example below, students can see that one can be divided into four one fourth pieces or six one sixth pieces. | **Assessment**  Check all that apply for the week:  Fact Fluency – YES  TOTD – YES  Quick Check –  Unit Common Assessment # \_\_\_\_  District Assessment # \_\_\_\_ | **Calendar/**  **Number Talks**  Patterns, Time, Line Plots, Length Measurement,  Area, Rounding, Bar Graphs, Perimeter, Liquid Capacity  **Anchor Charts**  Equivalent Fractions  Fractions on a Number Line  Comparing Fractions  Inequalities | **Manipulatives**  Color Tiles  Fraction Towers  Fraction Circles  Fraction Bars  Number Lines  Pattern Blocks  Deci Blocks  **Homework**  Week 24 Spiral  Use your Weekly Spiral HW as desired. Add other differentiated HW to weekly plans. |
| **Quarter – 3rd**  **Week - 25 Dates – 2/19/2018**  **Learning Targets**  **Unit – 6 Fractions**   * I can express whole numbers as fractions and recognize fractions that are equivalent to whole numbers? * I can compare two fractions with the same numerator or the same denominator by reasoning about their size? * I can recognize that comparisons are valid only when the two fractions refer to the same whole and record the results of comparisons with the symbols >, =, or <?   **Unit 7 Measurement**   * **I can generate data by measuring lengths to the nearest half and fourths of an inch.** * **I can create line plot graphs using measurement data where the scale is marked off in units- whole numbers, halves, and quarters.** | **AKS**  **19.NF.3\_b** recognize and generate simple equivalent fractions with denominators of 2, 3, 4, 6, and 8. (e.g., 1/2 = 2/4, 4/6 = 2/3); explain why the fractions are equivalent by using a visual fraction model  **20.NF.3\_c** express whole numbers as fractions and recognize fractions that are equivalent to whole numbers (e.g., express 3 in the form 3 = 6/2 (3 wholes is equal to six halves); recognize that 3/1 = 3; locate 4/4 and 1 at the same point of a number line diagram)  **21.NF.3\_d** 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 and record the results of comparisons with the symbols >, =, or <, and justify the conclusions (e.g., by using a visual fraction model)  **25.MD.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 | **Vocabulary**  Fraction  Denominator  Numerator  Number Line  Unit-Fraction  *Fractions Literature*  *Polar Bear Math.* Bickel, Cindy and Nagda, Ann Whitehead.  *Fraction Fun.*  Adler, David A.  *Ed Emberley’s Picture Pie: A Circle Drawing Book.*  Emberley, Ed.  Line Plots Graph  Inches  Centimeters  Half inch  Quarter Inch  Whole Number | **Textbook Resources**  [Equivalent Fraction Memory Game](https://instruction.gwinnett.k12.ga.us/content/enforced/58323-MathCommCtr/IRC%202016-2017/ES/Third%20Grade/3rd%20171819NF3%20Equivalent%20Fraction%20Game.pdf?_&d2lSessionVal=uuaC59A88W4tOurYoLqESkas9&ou=58323)  **McGraw-Hill/ My Math**  **Chapter 10**  Lessons 1 - 8  **Chapter 12**  Lesson 5  Lesson 6  Lesson 7 |
| **Teacher Resources:**  **Instructional Resources:**  Nearest half inch [Student practice](http://www.k-5mathteachingresources.com/support-files/measuring-to-the-nearest-half-inch.pdf)  [Task Line plot](http://3-5cctask.ncdpi.wikispaces.net/file/view/3.MD.4%20Task%201.doc/516387916/3.MD.4%20Task%201.doc)  [Measuring task](http://3-5cctask.ncdpi.wikispaces.net/file/view/3.MD.4%20Task%202.doc/516387934/3.MD.4%20Task%202.doc)  [Measuring Assessment task](http://3-5cctask.ncdpi.wikispaces.net/file/view/3.MD.4%20Task%203.doc/516387954/3.MD.4%20Task%203.doc)  [Learn zillion](https://learnzillion.com/lessonsets/656-generate-and-display-measurement-data-using-rulers-marked-with-halves-and-fourths-of-an-inch)  **Concrete:** Use ruler to measure various objects  **Representational**: Students measure the length of objects to the nearest half inch and quarter inch. Students create a line plot to represent the data collected.  **Abstract:** Students analyze the data in line plots and pose questions about the data presented in line plots. | **Assessment**  Check all that apply for the week:  Fact Fluency – YES  TOTD – YES  Quick Check –  Unit Common Assessment # \_\_\_\_  District Assessment # \_\_\_\_ | **Calendar/**  **Number Talks**  Patterns, Time, Line Plots, Length Measurement,  Area, Rounding, Bar Graphs, Perimeter, Liquid Capacity  **Anchor Charts**  Equivalent Fractions  Fractions on a Number Line  Comparing Fractions  Line Plots | **Manipulatives**  Color Tiles  Fraction Towers  Fraction Circles  Fraction Bars  Number Lines  Pattern Blocks  Deci Blocks  **Homework**  Week 21 Spiral  Use your Weekly Spiral HW as desired. Add other differentiated HW to weekly plans. |
| **Quarter – 3rd**  **Week - 26 Dates – 2/26/2018**  **Learning Targets**  **Unit 7 Measurement**   * I can generate data by measuring lengths to the nearest half and fourths of an inch. * I can create line plot graphs using measurement data where the scale is marked off in units- whole numbers, halves, and quarters. | **AKS**  **25.MD.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 | **Vocabulary**  Line Plots Graph  Inches  Centimeters  Half inch  Quarter Inch  Whole Number | **Textbook Resources**  [3-24 Measure Length/Line Plots](http://manager.classworks.com/gwinnett.k12.ga.us/practice/#/unit/6764/cad43441966d2324b3e1148fc897eec6)  **McGraw-Hill/ My Math**  **Chapter 12**  Lesson 5  Lesson 6  Lesson 7  Lesson 13 |
| **Teacher Resources:**  [**Measuring ants line plot**](http://www.k-5mathteachingresources.com/support-files/length-of-ants-line-plot.pdf)  **Partner Plots** Have students collect data as a class. For example, have them work with a partner to count the number of jumping jacks a student completes in one minute. Have them take turns counting for each other as the teacher calls out the times. Have the students record the data on a post-it note and place it on the board creating a class line plot. Have the students work in pairs to write 3 or 4 questions that can be answered by the line plot. Have partner groups exchange questions. Partner groups answer the questions. Bring class together and have class share questions/answers and decide if they agree with the answers provided. | **Assessment**  Check all that apply for the week:  Fact Fluency – YES  TOTD –  Quick Check –  Unit Common Assessment - Unit 6 [3rd Grade: Unit 6 (Word)](https://instruction.gwinnett.k12.ga.us/content/enforced/58323-MathCommCtr/IRC%202016-2017/ES/Third%20Grade/3rd%20Grade%20Unit%206.docx?_&d2lSessionVal=uuaC59A88W4tOurYoLqESkas9&ou=58323)  District Assessment # \_\_\_\_ | **Calendar/**  **Number Talks**  Rounding, Time, Depositor,  Patterns,  Estimation, Fractions, Length and Capacity, Perimeter and Area  **Anchor Charts**  Number Lines  Equivalent Fractions  Line Plots | **Manipulatives**  Color Tiles  Fraction Towers  Fraction Circles  Fraction Bars  Number Lines  **Homework**  Week 26 Spiral  Use your Weekly Spiral HW as desired. Add other differentiated HW to weekly plans. |

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| **Quarter – 4th**  **Week - 27 Dates – 3/5/2018**  **Learning Targets**  **Unit – 3 Addition and Subtraction**   * I can tell and write time to the nearest minute. * I can determine elapsed time by solving word problems involving addition and subtraction of the time in intervals in minutes. * I can represent problems with addition and subtraction of time intervals on number line diagrams. | **AKS**  **Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.**  **22.MD.1** tell and write time to the nearest minute and measure elapsed 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, drawing a pictorial representation of a clock face. etc.) | **Vocabulary**  Elapsed Time  Quarter After  Quarter till  Half past  Midnight  Noon  AM/PM | **Textbook Resources**  [Lesson 1: Telling Time](http://www.hand2mind.com/pdf/hos/hos-cce-online/e78864_HOS_CCE_Grade%203/e78864_CCE_3_MD1.pdf)  [Lesson 2: Elapsed Time](http://www.hand2mind.com/pdf/hos/hos-cce-online/e78864_HOS_CCE_Grade%203/e78864_CCE_3_MD2.pdf)  [Lesson 3: Add Intervals of Time](http://www.hand2mind.com/pdf/hos/hos-cce-online/e78864_HOS_CCE_Grade%203/e78864_CCE_3_MD3.pdf)  **McGraw-Hill/ My Math**  **Chapter 11**  Lesson 5  Lesson 6 |
| **Teacher Resources:**  **Interactive Resources**  [Learn zillion Elapsed time](https://learnzillion.com/lessonsets/139-tell-write-and-measure-time-to-the-minute)  [I have who has time](http://www.math-play.com/Who-%20Has-Time-Game.pdf)  [Holiday Travel task](https://docs.google.com/viewerng/viewer?url=http://edcanvas-uploads.s3.amazonaws.com/317091/dropbox/1426874239/3.MD.1%2520Holiday%2520Travels%2520(Elapsed%2520Time).pdf)  [Word problems](http://www.k-5mathteachingresources.com/support-files/elapsedtimewordproblems.pdf)  [IXL Elapsed time online](http://www.ixl.com/math/grade-3/elapsed-time)  [Online quiz](http://marg.mhost.com/MathGr5/elapsedtime.htm)  **Teacher notes:**  **Concrete:** analog, digital clocks, and elapsed time rulers  **Representational:** pre-determined number lines (elapsed time rulers) and open number lines.  **Abstract:** Students solve elapsed time problems by finding changes of time (elapsed time), start times, and end times in problems  **Ideas for instruction:**  *Use circles partitioned into fourths to show the meaning of these phrases, quarter past, quarter of, and half past and the relationship between them, including the number of minutes.* | **Assessment**  Check all that apply for the week:  Fact Fluency – YES  TOTD – YES  Quick Check –  Unit Common Assessment -  District Assessment # \_\_\_\_ | **Calendar/**  **Number Talks**  Rounding, Time, Depositor,  Patterns,  Estimation, Fractions, Length and Capacity, Perimeter and Area  **Anchor Charts**  Time to the hour, ½ hour, ¼ hour, minute,  Elapsed Time | **Manipulatives**  Clocks  Elapsed Time Rulers  Circle Fractions  **Homework**  Week 27 Spiral  Use your Weekly Spiral HW as desired. Add other differentiated HW to weekly plans. |





Third Grade Math Framework – 4th Nine Weeks 2017-2018

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| **Quarter – 4th**  **Week - 28 Dates – 3/12/2018**  **Learning Targets**  **Unit 7: Measurement**   * I can tell and write time to the nearest minute. * I can determine elapsed time by solving word problems involving addition and subtraction of the time in intervals in minutes. * I can represent problems with addition and subtraction of time intervals on number line diagrams. | **AKS**  **Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.**  **22.MD.1** tell and write time to the nearest minute and measure elapsed 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, drawing a pictorial representation of a clock face. etc.) | **Vocabulary**  Elapsed Time  Quarter After  Quarter till  Half past  Midnight  Noon  AM/PM | **Textbook Resources**  [Lesson 4: Finding Times After](http://www.hand2mind.com/pdf/hos/hos-cce-online/e78864_HOS_CCE_Grade%203/e78864_CCE_3_MD4.pdf)  [Lesson 5: Finding Times Before](http://www.hand2mind.com/pdf/hos/hos-cce-online/e78864_HOS_CCE_Grade%203/e78864_CCE_3_MD5.pdf)  **McGraw-Hill/ My Math**  **Chapter 11**  Lesson 5  Lesson 6 |
| **Teacher Resources:**  **Technology Resources**  **Instructional Support:** [**Elapsed Time Lesson Plan**](http://www.johnnyskey.com/lesson-plan.asp)[**Pigs On A Blanket**](http://www.successlink.org/gti/lesson_unit-viewer.asp?lid=5544)[**Elapsed Time In The Real World**](http://www.nsa.gov/academia/_files/collected_learning/elementary/geometry/elapsed_time.pdf)  **Performance Based Task:** [**Time To Get Clean**](http://insidemathematics.org/common-core-math-tasks/3rd-grade/3-2008%20Time%20to%20Get%20Clean.pdf)  **Student Practice:** [**Elapsed Time Word Problems**](http://www.k-5mathteachingresources.com/support-files/elapsedtimewordproblems.pdf)  [**Telling time**](http://www.studyzone.org/testprep/math4/j/timeminute.swf)  http://www.studyzone.org/mtestprep/math8/i/Presentation3.gif**Show elapsed time in many ways:** | **Assessment**  Check all that apply for the week:  Fact Fluency – YES  TOTD – YES  Quick Check –  Unit Common Assessment # \_\_\_\_  District Assessment 3rd Nine Weeks | **Calendar/**  **Number Talks**  Rounding, Time, Depositor,  Patterns,  Estimation, Fractions, Length and Capacity, Perimeter and Area  **Anchor Charts**  Time to the hour, ½ hour, ¼ hour, minute,  Elapsed Time | **Manipulatives**  Clocks  Elapsed Time Rulers  Circle Fractions  **Homework**  Week 28 Spiral  Use your Weekly Spiral HW as desired. Add other differentiated HW to weekly plans. |
| **Quarter – 4th**  **Week - 29 Dates – 3/19/2018**  **Learning Targets**  **Unit – 7 Measurement**   * I can we estimate and measure liquid volumes and masses of objects. * I can add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes. | **AKS**  **23.MD.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) | **Vocabulary**   |  | | --- | | capacity\* | | cup (c.)\* | | fluid ounce (oz.)\* | | gallon (gal.)\* | | liter (l, L)\* | | milliliter (ml, mL)\* | | pint (pt.)\* | | quart (qt.)\* | | **Textbook Resources**  [Lesson 6: Measure Weight](http://www.hand2mind.com/pdf/hos/hos-cce-online/e78864_HOS_CCE_Grade%203/e78864_CCE_3_MD6.pdf)  **McGraw-Hill/ My Math**  **Chapter 11**  Lesson 1  Lesson 2  Lesson 3  Lesson 4 |
| **Teacher Resources:**  [**Measuring One liter**](http://www.k-5mathteachingresources.com/support-files/measuring-one-liter.pdf)  [**Word problems with volume and mass**](http://www.k-5mathteachingresources.com/support-files/capacity-mass-word-problems.pdf)  [**Estimating weight**](http://www.k-5mathteachingresources.com/support-files/estimating-weight.pdf)  **Student Practice:** [***Liquid Volume* Measuring A Liter**](http://www.k-5mathteachingresources.com/support-files/measuring-one-liter.pdf)[***Mass* Weigh It Twice**](http://www.k-5mathteachingresources.com/support-files/weigh-it-twice.pdf)  [***Liquid Volume and Mass* Volume and Mass Word Problems**](http://www.k-5mathteachingresources.com/support-files/capacity-mass-word-problems.pdf)  [***Liquid Volume* More Or Less Than A Liter**](http://www.k-5mathteachingresources.com/support-files/moreorlessthanaliter.pdf) **UTO**  [***Liquid Volume* Capacity Line Up**](http://www.k-5mathteachingresources.com/support-files/capacitylineup.pdf) **UTO**  Concrete: Students should estimate volumes and masses before actually finding the measure. Students should be provided multiple opportunities to continue the process of estimating and then finding the actual measurement. The actual measurement provides instant feedback to the student’s original estimate. Use water colored with food coloring so that the water can be seen in a container. Allow students to sort and order containers by their size. Ask questions such as “Which containers hold less than/more than/or the same as 1 liter?” Show students containers and ask, “How many liters do you think will fill the container?” Allow students to pour liquids into different size containers to see how much liquid will be in certain whole liters. For example, students pour 1 liter into a large tub. Then ask questions such as “How much did you pour into the container?” “Describe the containers that were most/least full and explain why.” | **Assessment**  Check all that apply for the week:  Fact Fluency – YES  TOTD – YES  Quick Check –  Unit Common Assessment # \_\_\_\_  District Assessment # \_\_\_\_ | **Calendar/**  **Number Talks**  Rounding, Time, Depositor,  Patterns,  Estimation, Fractions, Length and Capacity, Perimeter and Area  **Anchor Charts**  Capacity  Liquid Volumes  Measurement Units and Abbreviations | **Manipulatives**  Appropriate containers  Scales  Rulers  **Homework**  Week 29 Spiral  Use your Weekly Spiral HW as desired. Add other differentiated HW to weekly plans. |

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| **Quarter – 4th**  **Week - 30 Dates – 3/26/2018**  **Learning Targets**  **Unit – 7 Measurement**   * I can solve problems involving perimeters of polygons including finding the perimeter given the side lengths and finding an unknown side length. * I can show rectangles with the same perimeters and different areas or the same areas with different perimeters | **AKS**  **34.MD.8** solve real world and mathematical problems involving the perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeters and different areas or the same areas with different perimeters | **Vocabulary**  rectangle  area  tiling  length  polygons  perimeter  array  square unit  linear unit | **Textbook Resources**  **Hands On Standards Perimeter Lessons:**  [**Perimeter**](http://www.hand2mind.com/pdf/hos/hos-math-student-pages/grade-3/e78867_HOSC_G3_MD_Stu.pdf)  **McGraw-Hill/ My Math**  **Chapter 13**  Lesson 1  Lesson 2  Lesson 9  Lesson 10 |
| **Technology Resources**  **Instructional Support:** [**Which Is It- Area or Perimeter?**](http://staff.rogersschools.net/modules/groups/homepagefiles/cms/1004854/File/Math%20Curriculum/3rd%20grade/Unit%203/Task%20%2022%203.MD.8%20Which%20is%20It...%20Area%20or%20Perimeter.pdf?sessionid=ba12de0cac2ba34535c9c90f7cfa8a83)[**Which Is It–Area or Perimeter?**](http://staff.rogersschools.net/modules/cms/pages.phtml?pageid=268632&sessionid=ba12de0cac2ba34535c9c90f7cfa8a83) **Powerpoint (Scroll down to Smart Notebook and Other Technology Resources)** [**Ben’s Pens**](http://rogersstaff.ss5.sharpschool.com/UserFiles/Servers/Server_3107337/File/3/Math/Area/Task%20%2018%203.MD.8%20Ben%27s%20Pen%5b1%5d.docx)  **Performance Based Task:** [**Polly Gone (Level A)**](http://insidemathematics.org/problems-of-the-month/pom-pollygone.pdf)[**Designing A Flower Bed**](http://www.k-5mathteachingresources.com/support-files/designing-a-flower-bed.pdf)  **Student Practice:** [**Perimeter On The Geoboard**](http://www.k-5mathteachingresources.com/support-files/perimeter-on-the-geoboard.pdf) [**Perimeter With Color Tiles**](http://www.k-5mathteachingresources.com/support-files/perimeter-with-color-tiles.pdf)[**The Perimeter Stays The Same**](http://www.k-5mathteachingresources.com/support-files/the-perimeter-stays-the-same.pdf)[**The Area Stays The Same**](http://www.k-5mathteachingresources.com/support-files/the-area-stays-the-same.pdf)[**Perimeter Word Problems**](http://www.k-5mathteachingresources.com/support-files/perim-word-problems.pdf)  **Teacher notes:**  **Concrete:** Students can use real objects, such as a hexagon, to find missing side lengths by using the guess and check method as a possible problem solving strategy.  **Representational:** Students can draw a hexagon, to find missing side lengths by using the guess and check method as a possible problem solving strategy.  **Abstract:** Students identify a missing side length using the relationship between addition and subtraction or multiplication and division. | **Assessment**  Check all that apply for the week:  Fact Fluency – YES  TOTD – YES  Quick Check –  Unit Common Assessment # \_\_\_\_  District Assessment # \_\_\_\_ | **Calendar/**  **Number Talks**  Rounding, Time, Depositor,  Patterns,  Estimation, Fractions, Length and Capacity, Perimeter and Area  **Anchor Charts**  Area and Perimeter | **Manipulatives**  Hundred Charts  Base Ten Blocks  Rulers  Color tiles  **Homework**  Week 30 Spiral  Use your Weekly Spiral HW as desired. Add other differentiated HW to weekly plans. |

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| **Quarter – 4th – SPRING BREAK – 4/2 – 4/6/18**  **Week - 31 Dates – 4/9/2018**  **Learning Targets**  **Unit – 7 Measurement**   * I can solve problems involving perimeters of polygons including finding the perimeter given the side lengths and finding an unknown side length. * I can show rectangles with the same perimeters and different areas or the same areas with different perimeters | **AKS**  **34.MD.8** solve real world and mathematical problems involving the perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeters and different areas or the same areas with different perimeters | **Vocabulary**  rectangle  area  tiling  length  polygons  perimeter  array  square unit  linear unit | **Textbook Resources**  **Hands On Standards Perimeter Lessons:**  [**Perimeter**](http://www.hand2mind.com/pdf/hos/hos-math-student-pages/grade-3/e78867_HOSC_G3_MD_Stu.pdf)  **McGraw-Hill/ My Math**  **Chapter 13**  Lesson 1  Lesson 2  Lesson 9  Lesson 10 |
| **Teacher Resources:**  **Technology Resources**  **Instructional Support:** [**Which Is It- Area or Perimeter?**](http://staff.rogersschools.net/modules/groups/homepagefiles/cms/1004854/File/Math%20Curriculum/3rd%20grade/Unit%203/Task%20%2022%203.MD.8%20Which%20is%20It...%20Area%20or%20Perimeter.pdf?sessionid=ba12de0cac2ba34535c9c90f7cfa8a83)[**Which Is It–Area or Perimeter?**](http://staff.rogersschools.net/modules/cms/pages.phtml?pageid=268632&sessionid=ba12de0cac2ba34535c9c90f7cfa8a83) **Powerpoint (Scroll down to Smart Notebook and Other Technology Resources)** [**Ben’s Pens**](http://rogersstaff.ss5.sharpschool.com/UserFiles/Servers/Server_3107337/File/3/Math/Area/Task%20%2018%203.MD.8%20Ben%27s%20Pen%5b1%5d.docx)  **Performance Based Task:** [**Polly Gone (Level A)**](http://insidemathematics.org/problems-of-the-month/pom-pollygone.pdf)[**Designing A Flower Bed**](http://www.k-5mathteachingresources.com/support-files/designing-a-flower-bed.pdf)  **Student Practice:** [**Perimeter On The Geoboard**](http://www.k-5mathteachingresources.com/support-files/perimeter-on-the-geoboard.pdf) [**Perimeter With Color Tiles**](http://www.k-5mathteachingresources.com/support-files/perimeter-with-color-tiles.pdf)[**The Perimeter Stays The Same**](http://www.k-5mathteachingresources.com/support-files/the-perimeter-stays-the-same.pdf)[**The Area Stays The Same**](http://www.k-5mathteachingresources.com/support-files/the-area-stays-the-same.pdf)[**Perimeter Word Problems**](http://www.k-5mathteachingresources.com/support-files/perim-word-problems.pdf)  **Teacher notes:**  **Concrete:** Students can use real objects, such as a hexagon, to find missing side lengths by using the guess and check method as a possible problem solving strategy.  **Representational:** Students can draw a hexagon, to find missing side lengths by using the guess and check method as a possible problem solving strategy.  **Abstract:** Students identify a missing side length using the relationship between addition and subtraction or multiplication and division. | **Assessment**  Check all that apply for the week:  Fact Fluency – YES  TOTD – YES  Quick Check –  Unit Common Assessment # \_\_\_\_  District Assessment # \_\_\_\_ | **Calendar/**  **Number Talks**  Rounding, Time, Depositor,  Patterns,  Estimation, Fractions, Length and Capacity, Perimeter and Area  **Anchor Charts**  Area and Perimeter | **Manipulatives**  Hundred Charts  Base Ten Blocks  Rulers  Color tiles  **Homework**  Week 31 Spiral  Use your Weekly Spiral HW as desired. Add other differentiated HW to weekly plans. |

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| **Quarter – 4th**  **Week - 32 Dates – 4/16/2018**  **Learning Targets**  **Unit – 7 Measurement**   * I can solve problems involving perimeters of polygons including finding the perimeter given the side lengths and finding an unknown side length. * I can show rectangles with the same perimeters and different areas or the same areas with different perimeters | **AKS**  **34.MD.8** solve real world and mathematical problems involving the perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeters and different areas or the same areas with different perimeters | **Vocabulary**  rectangle  area  tiling  length  polygons  perimeter  array  square unit  linear unit | **Textbook Resources**  **Hands On Standards Perimeter Lessons:**  [**Perimeter**](http://www.hand2mind.com/pdf/hos/hos-math-student-pages/grade-3/e78867_HOSC_G3_MD_Stu.pdf)  **McGraw-Hill/ My Math**  **Chapter 13**  Lesson 1  Lesson 2  Lesson 9  Lesson 10 |
| **Technology Resources**  **Instructional Support:** [**Which Is It- Area or Perimeter?**](http://staff.rogersschools.net/modules/groups/homepagefiles/cms/1004854/File/Math%20Curriculum/3rd%20grade/Unit%203/Task%20%2022%203.MD.8%20Which%20is%20It...%20Area%20or%20Perimeter.pdf?sessionid=ba12de0cac2ba34535c9c90f7cfa8a83)[**Which Is It–Area or Perimeter?**](http://staff.rogersschools.net/modules/cms/pages.phtml?pageid=268632&sessionid=ba12de0cac2ba34535c9c90f7cfa8a83) **Powerpoint (Scroll down to Smart Notebook and Other Technology Resources)** [**Ben’s Pens**](http://rogersstaff.ss5.sharpschool.com/UserFiles/Servers/Server_3107337/File/3/Math/Area/Task%20%2018%203.MD.8%20Ben%27s%20Pen%5b1%5d.docx)  **Performance Based Task:** [**Polly Gone (Level A)**](http://insidemathematics.org/problems-of-the-month/pom-pollygone.pdf)[**Designing A Flower Bed**](http://www.k-5mathteachingresources.com/support-files/designing-a-flower-bed.pdf)  **Student Practice:** [**Perimeter On The Geoboard**](http://www.k-5mathteachingresources.com/support-files/perimeter-on-the-geoboard.pdf) [**Perimeter With Color Tiles**](http://www.k-5mathteachingresources.com/support-files/perimeter-with-color-tiles.pdf)[**The Perimeter Stays The Same**](http://www.k-5mathteachingresources.com/support-files/the-perimeter-stays-the-same.pdf)[**The Area Stays The Same**](http://www.k-5mathteachingresources.com/support-files/the-area-stays-the-same.pdf)[**Perimeter Word Problems**](http://www.k-5mathteachingresources.com/support-files/perim-word-problems.pdf)  **Teacher notes:**  **Concrete:** Students can use real objects, such as a hexagon, to find missing side lengths by using the guess and check method as a possible problem solving strategy.  **Representational:** Students can draw a hexagon, to find missing side lengths by using the guess and check method as a possible problem solving strategy.  **Abstract:** Students identify a missing side length using the relationship between addition and subtraction or multiplication and division. | **Assessment**  Check all that apply for the week:  Fact Fluency – YES  TOTD –  Quick Check –  Unit Common Assessment – Unit 7 [3rd Grade: Unit 7 (Word)](https://instruction.gwinnett.k12.ga.us/content/enforced/58323-MathCommCtr/IRC%202016-2017/ES/Third%20Grade/3rd%20Grade%20Unit%207.docx?_&d2lSessionVal=uuaC59A88W4tOurYoLqESkas9&ou=58323)  District Assessment # \_\_\_\_ | **Calendar/**  **Number Talks**  Rounding, Time, Depositor,  Patterns,  Estimation, Fractions, Length and Capacity, Perimeter and Area  **Anchor Charts**  Area and Perimeter | **Manipulatives**  Hundred Charts  Base Ten Blocks  Rulers  Color tiles  **Homework**  Week 32 Spiral  Use your Weekly Spiral HW as desired. Add other differentiated HW to weekly plans. |
| **Quarter – 4th**  **Week - 33 Dates – 4/23/2018**  **Learning Targets**  **REVIEW FOR MILESTONES and DAs** | **AKS**  **REVIEW FOR MILESTONES and DAs** | **Vocabulary**  **REVIEW FOR MILESTONES and DAs** | **Textbook Resources**  **REVIEW FOR MILESTONES and DAs** |
| **Teacher Resources:**  **REVIEW FOR MILESTONES and DAs** | **Assessment**  **REVIEW FOR MILESTONES and DAs** | **Calendar/**  **Number Talks**  **REVIEW FOR MILESTONES and Das**  **Anchor Charts**  **REVIEW FOR MILESTONES and DAs** | **Manipulatives**  **REVIEW FOR MILESTONES and DAs**  **Homework**  Week 33 Spiral  Use your Weekly Spiral HW as desired. Add other differentiated HW to weekly plans. |
| **Quarter – 4th**  **Week - 34 Dates – 4/30/2018**  **Learning Targets**  **REVIEW FOR MILESTONES and DAs** | **AKS**  **REVIEW FOR MILESTONES and DAs** | **Vocabulary**  **REVIEW FOR MILESTONES and DAs** | **Textbook Resources**  **REVIEW FOR MILESTONES and DAs** |
| **Teacher Resources:**  **REVIEW FOR MILESTONES and DAs** | **Assessment**  **REVIEW FOR MILESTONES and DAs** | **Calendar/**  **Number Talks**  **REVIEW FOR MILESTONES and DAs**  **Anchor Charts**  **REVIEW FOR MILESTONES and DAs** | **Manipulatives**  **REVIEW FOR MILESTONES and DAs**  **Homework**  Week 34 Spiral  Use your Weekly Spiral HW as desired. Add other differentiated HW to weekly plans. |

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| **Quarter – 4th**  **Week - 35 Dates – 5/7/2018**  **Learning Targets**   * **Preview 4th Grade AKS** | **AKS**   * **Preview 4th Grade AKS** | **Vocabulary**   * **Preview 4th Grade AKS** | **Textbook Resources**   * **Preview 4th Grade AKS** |
| **Teacher Resources:**   * **Preview 4th Grade AKS** | **Assessment**   * **Preview 4th Grade AKS** | **Calendar/**  **Number Talks**   * **Preview 4th Grade AKS**   **Anchor Charts**   * **Preview 4th Grade AKS** | **Manipulatives**   * **Preview 4th Grade AKS**   **Homework**  Week 35 Spiral  Use your Weekly Spiral HW as desired. Add other differentiated HW to weekly plans. |
| **Quarter – 4th**  **Week - 36 Dates – 5/14/2018 – 5/23/2017**  **Learning Targets**   * **Preview 4th Grade AKS** | **AKS**   * **Preview 4th Grade AKS** | **Vocabulary**   * **Preview 4th Grade AKS** | **Textbook Resources**   * **Preview 4th Grade AKS** |
| **Teacher Resources:**   * **Preview 4th Grade AKS** | **Assessment**   * **Preview 4th Grade AKS** | **Calendar/**  **Number Talks**   * **Preview 4th Grade AKS**   **Anchor Charts**   * **Preview 4th Grade AKS** | **Manipulatives**  Various  **Homework**  Week 36 Spiral  Use your Weekly Spiral HW as desired. Add other differentiated HW to weekly plans. |