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| **Curriculum Management System** | |
| ***PAULSBORO PUBLIC SCHOOLS*** | |
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| **Mathematics Curriculum- Third Grade** | |
| **UPDATED JUNE 2016** | |
| **For adoption by all regular education programs as specified and for adoption or adaptation by all Special Education Programs in accordance with Board of Education Policy.** | **Board Approved: September 2016** |

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| **Paulsboro Public Schools** |
| ***Dr. Laurie Bandlow, Superintendent***  ***Board of Education***  Mr. Thomas Ridinger, President Ms. Bonnie Eastlack, Vice President Mrs. Barbara Dunn Mr. Marvin E. Hamilton, Sr. Mr. John Hughes\* Mr. Joseph L. Lisa  Mrs. Lisa Priest Mrs. Lisa L. Lozada-Shaw Mrs. Irma R. Stevenson Mr. James J. Walter  \* Greenwich Township Board of Education Representative  ***District Administration***  Dr. Lucia Pollino, Director of Curriculum & Assessment  Ms. Jennifer Johnson, Business Administrator/Board Secretary  Mr. John Giovannitti, Director of Special Services  Mr. Paul Bracciante, Principal, grades Pre-K to 2  Mr. Matthew J. Browne, Principal, grades 3-6  ***Curriculum Writing Team*** Mrs. Lange, Curriculum Facilitator |
| **Paulsboro Public Schools** |
| **MissionStatement**  The mission of the Paulsboro School District is to provide each student the educational opportunities to assist in attaining their full potential in a democratic society. Our instructional programs will take place in a responsive, community based school system that fosters respect among all people.Our expectation is that all students will achieve the New Jersey Core Curriculum Content Standards (NJCCCS) at every grade level. |

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| New Jersey State Department of Education  21st Century College and Career Readiness Standards  **The 12 Career Ready Practices**  These practices outline the skills that all individuals need to have to truly be adaptable, reflective, and proactive in life and careers. These are researched practices that are essential to career readiness.  CRP1. Act as a responsible and contributing citizen and employee.  CRP2. Apply appropriate academic and technical skills.  CRP3. Attend to personal health and financial well-being.  CRP4. Communicate clearly and effectively and with reason.  CRP5. Consider the environmental, social and economic impacts of decisions.  CRP6. Demonstrate creativity and innovation.  CRP7. Employ valid and reliable research strategies.  CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.  CRP9. Model integrity, ethical leadership and effective management.  CRP10. Plan education and career paths aligned to personal goals.  CRP11. Use technology to enhance productivity.  CRP12. Work productively in teams while using cultural global competence.   |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | **Reading Unit** | **Reading Standards** | **Writing Unit** | **Writing Standards** | **Speaking & Listening Standards** | **Language Standards** | **Foundational Skills Standards** | | Building a Reading Life | RL.3.3, RL.3.6 | Launching Writing Workshop | W.3.3, W.3.10 | SL.3.1, SL.3.6 | L.3.2, L.3.4 | FS.3.3, FS.3.4 | | Following Characters into Meaning | RI.3.3, RI.3.6, RI.3.8 | Narrative: Crafting True Stories | W.3.2, W.3.4, W.3.5 | SL.3.1, SL.3.6 | L.3.2, L.3.4 | FS.3.3, FS.3.4 | | Informational Reading | RL.3.1, RL.3.2, RL.3.7 | Informational Writing | W.3.2, W.3.4, W.3.5, W.3.10 | Sl.3.1, SL.3.6 | L.3.1, L.3.3 | FS.3.3, FS.3.4 | | Nonfiction Reading: Expository Texts | RI.3.1, RI.3.2, RI.3.7 | Non Fiction  Chapter Books | W.3.2, W.3.5, W.3.6, W.3.7, W.3.8 | SL.3.1, SL.3.2, SL.3.4 | L.3.1, L.3.3 | FS.3.3, FS.3.4 | | Mystery Book Clubs | RL.3.2, RL.3.4, RL.3.5, RL.3.10 | Opinion: Changing the World | W.3.1, W.3.5, W.3.6, W.3.7, W.3.8 | SL.3.3, SL.3.4 | L.3.5, L.3.6 | FS.3.3, FS.3.4 | | Biography Book Clubs | RI.3.2, RI.3.3, RI.3.4, RI.3.5 | Opinion; Changing the World | W.3.1, W.3.5, W.3.6, W.3.7, W.3.8 | SL.3.3, SL.3.4 | L.3.5, L.3.6 | FS.3.3, FS.3.4 | | Series Book Clubs | RL.3.5, RL.3.10 | Opinion: Changing the World | W.3.1, W.3.7 | SL.3.1, SL.3.6 | L.3.2, L.3.4 | FS.3.3, FS.3.4 | | Test Preparation | RL.3.1, RL.3.9, RI.3.2, RI.3.9 | Test Preparation | W.3.1, W.3.6 | SL.3.2, SL.3.4 | L.3.1, L.3.3 | FS.3.3, FS.3.4 | | Social Issues Book Clubs | RI.3.10 | Fairy Tales | W.3.3, W.3.5, W.3.10 | SL.3.5 | L.3.6 | FS.3.3, FS.3.4 | |
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| **Scope and Sequence** | |
| **Quarter 1 – Grade \_3\_** | |
| **Big Idea #1: Multiplication and Division (NJ DOE Unit 1)**  **(Envision Topics 1, 2, 3, 4, 5, 6, 7, 10, 11)** | **Big Idea #2: Concepts of Area (NJ DOE Unit 1)**  **(Envision Topic 6)** |

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| **Scope and Sequence** | |
| **Quarter 2 – Grade \_3\_** | |
| **Big Idea #1: Modeling Multiplication and Division (NJ DOE Unit 2)**  **(Envisions Topics 1, 2, 3, 4, 5, 6, 7, 10, 11)** | **Big Idea #2: Modeling Fractions (NJ DOE Unit 2)**  **(Envisions Topics 12, and 13)** |

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| **Scope and Sequence** | |
| **Quarter 3 – Grade \_3\_** | |
| **Big Idea #1: Fractions as Numbers (NJ DOE Unit 3)**  **(Envisions Topics 12 and 13)** | **Big Idea #2: Measurement (NJ DOE Unit 3)**  **(Envisions Topics 14, 15, and 16)** |

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| **Scope and Sequence** | |
| **Quarter 4 – Grade \_3\_** | |
| **Big Idea #1: Representing Data (NJ DOE Unit 4)**  **(Envisions Topic 7)** |  |

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| **QUARTER 1 –  Big Idea: Multiplication and Division**  **Topic: Understanding and Representing Properties of Multiplication and Division** | | |
| **Standards:**   |  | | --- | | 3.OA.A.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. For example, describe and/or represent a context in which a total number of objects can be expressed as 5 x 7.  3.OA.A.2. Interpret whole-number quotients of whole numbers, e.g., interpret 56 ÷ 8 as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each. For example, describe and/or represent a context in which a number of shares or a number of groups can be expressed as 56 ÷ 8.  3.OA.A.3. Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. \*(benchmarked)  3.OA.A.4. Determine the unknown whole number in a multiplication or division equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations 8 × ? = 48, 5 = ÷ 3, 6 × 6 = ?.  3.OA.B.6. Understand division as an unknown-factor problem. For example, find 32 ÷ 8 by finding the number that makes 32 when multiplied by 8.  RL.3.1. Ask and answer questions, and make relevant connections to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.  SL.3.6. Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification. (See grade 3 Language standards 1 and 3 here for specific expectations.) SL.3.1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.  CRP1. Act as a responsible and contributing citizen and employee.  CRP2. Apply appropriate academic and technical skills.  CRP11. Use technology to enhance productivity | | **GOAL** | |
| Students will represent and solve problems using various strategies involving multiplication and division. | |
| **Essential Questions Assessments** | |
| 1. How can we fluently multiply and divide up to 100? 2. What strategies can we use to multiply and divide? 3. How can we determine unknown numbers in division and multiplication equations? | **Formative:**  Questioning, discussion, exit slip, graphic organizers, self-assessment, individual white boards, math tools/games  **Summative:**  Daily common core review, quick check, multiple-choice, topic test, free-response topic test, performance assessment, cumulative test, benchmark test |
| **Enduring Understanding Resources** | |
| 1. Multiplication gives the same result as repeated addition and the product of two whole numbers is the total number of objects in a number of equal groups. 2. Division is a means to finding equal groups of objects and gives the same result as repeated subtraction. Quotient of two whole numbers is the number of objects in each share when objects are grouped equally into shares. | Envision Math Series 2.0, Pearson 2016  Student Manipulatives  Pearson Success Net (online tools)  Math Instructional Coach  Compass Learning Odyssey  Technology:  [www.coolmath.com](http://www.coolmath.com)  [www.aplusmath.com](http://www.aplusmath.com)  [www.mathplayground.com](http://www.mathplayground.com)  [www.xtramath.com](http://www.xtramath.com)  3.OA.A.2 Fish Tanks  3.OA.A.3 Analyzing Word Problems Involving Multiplication  3.OA.A.4 Finding the unknown in a division equation  3.MD.C.6 Finding the Area of Polygons  3.MD.C.7a India's Bathroom Tiles  3.NBT.A.1 Rounding to 50 or 500  3.NBT.A.1 Rounding to the Nearest Ten and Hundred  3.NBT.A.3 How Many Colored Pencils? |
| **QUARTER 1 –  Big Idea: Concepts of Area**  **Topic: Understanding Measuring Area** | | |
| **Standards:**  RL.3.1. Ask and answer questions, and make relevant connections to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.  SL.3.6. Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification. (See grade 3 Language standards 1 and 3 here for specific expectations.)  SL.3.1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.  3.MD.C.5. Recognize area as an attribute of plane figures and understand concepts of area measurement.  3.MD.C.5a. A square with side length 1 unit, called “a unit square,” is said to have “one square unit” of area, and can be used to measure area.  3.MD.C.5b. A plane figure which can be covered without gaps or overlaps by n unit squares is said to have an area of n square units. 3.MD.C.6. Measure areas by counting unit squares (square cm, square m, square in, square ft, and non-standard units)  3.MD.C.7. Relate area to the operations of multiplication and addition.  3.MD.C.7a. Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths.  3.MD.C.7b. Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.  3.NBT.A.1. Round whole numbers to the nearest 10 or 100.  CRP1. Act as a responsible and contributing citizen and employee.  CRP2. Apply appropriate academic and technical skills.  CRP11. Use technology to enhance productivity | **GOAL** | |
| Students will be able to measure the area of rectangles using various strategies. | |
| **Essential Questions Assessments** | |
| 1. What strategies can we use to find the area of rectangles? 2. How do we round whole numbers to the nearest 10 or 100? 3. How can we relate area to multiplication? | **Formative:**  Questioning, discussion, exit slip, graphic organizers, self-assessment, individual white boards, math tools/games  **Summative:**  Daily common core review, quick check, multiple-choice, topic test, free-response topic test, performance assessment, cumulative test, benchmark test |
| **Enduring Understanding Resources** | |
| 1. Area is the amount of space inside the boundary of a (closed) figure and a square with side length 1 unit, called “a unit square,” is said to have “one square unit” of area, and can be used to measure area. 2. Rounding leads to an approximation or estimate. Students are able to: use number lines and a hundreds charts to explain rounding numbers to the nearest 10 and 100. | Envision Math Series 2.0, Pearson 2016  Student Manipulatives  Pearson Success Net (online tools)  Math Instructional Coach  Compass Learning Odyssey  Technology:  [www.coolmath.com](http://www.coolmath.com), [www.aplusmath.com](http://www.aplusmath.com)  [www.mathplayground.com](http://www.mathplayground.com), [www.xtramath.com](http://www.xtramath.com)  3.OA.A.2 Fish Tanks  3.OA.A.3 Analyzing Word Problems Involving Multiplication  3.OA.A.4 Finding the unknown in a division equation  3.MD.C.6 Finding the Area of Polygons  3.MD.C.7a India's Bathroom Tiles  3.NBT.A.1 Rounding to 50 or 500  3.NBT.A.1 Rounding to the Nearest Ten and Hundred  3.NBT.A.3 How Many Colored Pencils? |
| **QUARTER 2 –  Big Idea: Modeling Multiplication and Division**  **Topic: Understanding the ways to represent Multiplication and Division.** | | |
| **Standards:**  3.OA.A.3. Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. \*(benchmarked)  3.OA.B.5. Apply properties of operations as strategies to multiply and divide.  3.MD.C.7. Relate area to the operations of multiplication and addition.  3.MD.C.7c. Use tiling to show in a concrete case that the area of a rectangle with whole- number side lengths a and b + c is the sum of a × b and a × c. Use area models to represent the distributive property in mathematical reasoning.  3.OA.C.7. Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 × 5 = 40, one knows 40 ÷ 5 = 8) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers. \*(benchmarked)  3.OA.D.8. Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding. \*(benchmarked)  3.OA.D.9. Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations..  RL.3.1. Ask and answer questions, and make relevant connections to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.  SL.3.6. Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification. (See grade 3 Language standards 1 and 3 here for specific expectations.) SL.3.1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.  CRP9. Model integrity, ethical leadership and effective management. CRP1. Act as a responsible and contributing citizen and employee.  CRP2. Apply appropriate academic and technical skills.  CRP11. Use technology to enhance productivity | **GOAL** | |
| Students will be able to model and solve multiplication and division problems using various strategies. | |
| **Essential Questions Assessments** | |
| 1. How can we identify and explain the properties of multiplication? 2. How can we fluently multiply and divide within 100? 3. What strategies can we use to solve two step word problems? 4. How can we use patterns to solve multiplication or addition? 5. How can we find the area of a rectilinear figure? | **Formative:**  Questioning, discussion, exit slip, graphic organizers, self-assessment, individual white boards, math tools/games  **Summative:**  Daily common core review, quick check, multiple-choice, topic test, free-response topic test, performance assessment, cumulative test, benchmark test |
| **Enduring Understanding Resources** | |
| 1. The properties of multiplication, Commutative, Associative, Identity, and Distributive, are rules about relationships between numbers. 2. Areas of rectilinear figures can be determined by decomposing them into non-overlapping rectangles and adding the areas of the parts. 3. To represent the solution to two-step word problems with equations use a symbol to represent an unknown in an equation. 4. Addition and multiplication tables reveal arithmetic patterns that may be related to whether a number is even or odd. Patterns exist in rows, columns and diagonals of addition tables and multiplication tables. | Envision Math Series 2.0, Pearson 2016  Student Manipulatives  Pearson Success Net (online tools)  Math Instructional Coach  Compass Learning Odyssey  Technology:  [www.coolmath.com](http://www.coolmath.com), [www.aplusmath.com](http://www.aplusmath.com)  [www.mathplayground.com](http://www.mathplayground.com), [www.xtramath.com](http://www.xtramath.com)  3.OA.A.3 Two Interpretations of Division  3.OA.B.5 Valid Equalities? (Part 2)  3.MD.C.7c Introducing the Distributive Property  3.OA.C.7 Kiri's Multiplication Matching Game  3.OA.D.8 The Class Trip  3.OA.D.9 Addition Patterns  3.NF.A.1 Naming the Whole for a Fraction  3.G.A.2 Representing Half of a Circle |
| **QUARTER 2–  Big Idea: Modeling Fractions**  **Topic: Understanding the ways to represent Fractions** | | |
| **Standards:**  3.NF.A.1. Understand a fraction 1/b as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction a/b as the quantity formed by a parts of size 1/b.  3.G.A.2. Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. For example, partition a shape into 4 parts having equal area and describe the area of each part as 1/4 of the area of the shape.  RL.3.1. Ask and answer questions, and make relevant connections to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.  SL.3.6. Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification. (See grade 3 Language standards 1 and 3 here for specific expectations.) SL.3.1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.  CRP9. Model integrity, ethical leadership and effective management. CRP1. Act as a responsible and contributing citizen and employee.  CRP2. Apply appropriate academic and technical skills.  CRP11. Use technology to enhance productivity | **GOAL** | |
| Students will be able to identify fractions as equal parts of a whole. | |
| **Essential Questions Assessments** | |
| 1. How can we recognize a fraction? 2. How can we name a fraction? 3. What is a denominator and a numerator? | **Formative:**  Questioning, discussion, exit slip, graphic organizers, self-assessment, individual white boards, math tools/games  **Summative:**  Daily common core review, quick check, multiple-choice, topic test, free-response topic test, performance assessment, cumulative test, benchmark test |
| **Enduring Understanding Resources** | |
| 1. Wholes, when partitioned into equal parts, contain parts representing a unit fraction and each part is the same size. 2. Each part of the fraction has the same name and represents a unit fraction (one-half, one-third, one-fourth, one-sixth, one-eighth). 3. The denominator is the total number of parts in the whole and the numerator is the number of parts in a given fraction. | Envision Math Series 2.0, Pearson 2016  Student Manipulatives  Pearson Success Net (online tools)  Math Instructional Coach  Compass Learning Odyssey  Technology:  [www.coolmath.com](http://www.coolmath.com), [www.aplusmath.com](http://www.aplusmath.com)  [www.mathplayground.com](http://www.mathplayground.com), [www.xtramath.com](http://www.xtramath.com)  3.OA.A.3 Two Interpretations of Division  3.OA.B.5 Valid Equalities? (Part 2)  3.MD.C.7c Introducing the Distributive Property  3.OA.C.7 Kiri's Multiplication Matching Game  3.OA.D.8 The Class Trip  3.OA.D.9 Addition Patterns  3.NF.A.1 Naming the Whole for a Fraction  3.G.A.2 Representing Half of a Circle |
| **QUARTER 3–  Big Idea: Fractions as Numbers**  **Topic: Developing an Understanding of Fractions as Numbers** | | |
| **Standards:**  3.NF.A.2. Understand a fraction as a number on the number line; represent fractions on a number line diagram.  3.NF.A.2a. Represent a fraction 1/b on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into b equal parts. Recognize that each part has size 1/b and that the endpoint of the part based at 0 locates the number 1/b on the number line.  3.NF.A.2b. Represent a fraction a/b on a number line diagram by marking off a lengths 1/b from 0. Recognize that the resulting interval has size a/b and that its endpoint locates the number a/b on the number line.  3.NF.A.3. Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size  3.NF.A.3a. Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line.  3.NF.A.3b. Recognize and generate simple equivalent fractions, e.g., 1/2 = 2/4, 4/6 = 2/3). Explain why the fractions are equivalent, e.g., by using a visual fraction model.  3.NF.A.3c. Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. Examples: Express 3 in the form 3 = 3/1; recognize that 6/1 = 6; locate 4/4 and 1 at the same point of a number line diagram.  3.NF.A.3d. Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual fraction model.  RL.3.1. Ask and answer questions, and make relevant connections to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.  SL.3.6. Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification. (See grade 3 Language standards 1 and 3 here for specific expectations.)  SL.3.1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.  CRP9. Model integrity, ethical leadership and effective management. CRP1. Act as a responsible and contributing citizen and employee.  CRP2. Apply appropriate academic and technical skills.  CRP11. Use technology to enhance productivity | **GOAL** | |
| Students will be able to identify and understand fractions on a number line. | |
| **Essential Questions Assessments** | |
| 1. How can we represent a unit fraction on a number line? 2. How can we use a number line to show equivalent fractions? 3. How can we express whole numbers as fractions? 4. How can we compare fractions that have the same numerator or denominator? | **Formative:**  Questioning, discussion, exit slip, graphic organizers, self-assessment, individual white boards, math tools/games  **Summative:**  Daily common core review, quick check, multiple-choice, topic test, free-response topic test, performance assessment, cumulative test, benchmark test |
| **Enduring Understanding Resources** | |
| 1. A fraction is a number and has its place on the number line. When placing unit fractions on a number line, the space between 0 and 1 is the whole and must be partitioned into equal parts find equivalent fractions (limited to fractions with denominators 2, 3, 4, 6, and 8). 2. To explain why two fractions are equivalent; use a visual fraction model to support explanation. 3. Compare two fractions having the same numerator or denominator by reasoning about their size. | Envision Math Series 2.0, Pearson 2016  Student Manipulatives  Pearson Success Net (online tools)  Math Instructional Coach  Compass Learning Odyssey  Technology:  [www.coolmath.com](http://www.coolmath.com), [www.aplusmath.com](http://www.aplusmath.com)  [www.mathplayground.com](http://www.mathplayground.com), [www.xtramath.com](http://www.xtramath.com)  3.NF.A.2 Closest to 1/2  3.NF.A.2 Find 1 Starting from 5/3  3.NF.A.2 Locating Fractions Greater than One on the Number Line  3.NF.A.3b, 3.G.A.2, 3.MD.C.6 Halves, thirds, and sixths  3.MD.A.1 Dajuana's Homework  3.MD.A.2 How Heavy?  3.MD.D Shapes and their Insides |
| **QUARTER 3–  Big Idea: Measurement**  **Topic: Measuring and Estimating Intervals of Time, Volume and Mass** | | |
| **Standards:**  3.MD.A.1. Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes. (e.g., by representing the problem on a number line diagram)  3.MD.A.2. Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units.  3.G.A.1. Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals.  3.MD.D.8. Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.  3.OA.C.7. Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 × 5 = 40, one knows 40 ÷ 5 = 8) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.  RL.3.1. Ask and answer questions, and make relevant connections to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.  SL.3.6. Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification. (See grade 3 Language standards 1 and 3 here for specific expectations.)  SL.3.1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.  CRP9. Model integrity, ethical leadership and effective management. CRP1. Act as a responsible and contributing citizen and employee.  CRP2. Apply appropriate academic and technical skills.  CRP11. Use technology to enhance productivity | **GOAL** | |
| Students will be able to solve problems involving measuring and estimating intervals of time, volume, and mass. They will be able to recognize perimeter as an attribute of plane figures. | |
| **Essential Questions Assessments** | |
| 1. How do we tell and write time to the nearest minute? 2. How can we measure and estimate liquid volume and mass? 3. What is a quadrilateral? 4. How can we find the perimeter of a polygon? | **Formative:**  Questioning, discussion, exit slip, graphic organizers, self-assessment, individual white boards, math tools/games  **Summative:**  Daily common core review, quick check, multiple-choice, topic test, free-response topic test, performance assessment, cumulative test, benchmark test |
| **Enduring Understanding Resources** | |
| 1. To tell time to the nearest minute we use digital and analog clocks and will write time to the nearest minute using analog clocks. 2. Choose appropriate strategies to solve real world problems involving time and use the number line as a visual model to determine and measure intervals of time as jumps on a number line. 3. Mass may be measured in grams and kilograms by weighing, where volume may be measured in liters in instruments such as beakers. 4. Quadrilaterals a closed figures with four sides.  |  | | --- | | 1. Perimeter of a figure is equivalent to the sum of the length of all of the sides. | | Envision Math Series 2.0, Pearson 2016  Student Manipulatives  Pearson Success Net (online tools)  Math Instructional Coach  Compass Learning Odyssey  Technology:  [www.coolmath.com](http://www.coolmath.com), [www.aplusmath.com](http://www.aplusmath.com)  [www.mathplayground.com](http://www.mathplayground.com), [www.xtramath.com](http://www.xtramath.com)  3.NF.A.2 Closest to 1/2  3.NF.A.2 Find 1 Starting from 5/3  3.NF.A.2 Locating Fractions Greater than One on the Number Line  3.NF.A.3b, 3.G.A.2, 3.MD.C.6 Halves, thirds, and sixths  3.MD.A.1 Dajuana's Homework  3.MD.A.2 How Heavy?  3.MD.D Shapes and their Insides |
| **QUARTER 4 –  Big Idea: Representing Data**  **Topic: Representing and Interpreting Data** | | |
| **Standards:**  3.MD.B.3. Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step “how many more” and “how many less” problems using information presented in scaled bar graphs. For example, draw a bar graph in which each square in the bar graph might represent 5 pets.  3.MD.B.4. Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units— whole numbers, halves, or quarters.  3.OA.C.7. Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 × 5 = 40, one knows 40 ÷ 5 = 8) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers. \*(benchmarked)  3.OA.D.8. Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.  3.NBT.A.2. Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.  3.MD.C.7. Relate area to the operations of multiplication and addition.  3.MD.C.7d. Recognize area as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real world problems.  RL.3.1. Ask and answer questions, and make relevant connections to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.  SL.3.6. Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification. (See grade 3 Language standards 1 and 3 here for specific expectations.)  SL.3.1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.  CRP9. Model integrity, ethical leadership and effective management. CRP1. Act as a responsible and contributing citizen and employee.  CRP2. Apply appropriate academic and technical skills.  CRP11. Use technology to enhance productivity | **GOAL** | |
| Students will be able to represent and interpret data from various graphs and problems. | |
| **Essential Questions Assessments** | |
| 1. How can we draw graphs and pictures to represent data? 2. How can we display information on a line plot? 3. How can we solve a 2 step word problem with unknowns? 4. How can we find the area of rectilinear figures? | **Formative:**  Questioning, discussion, exit slip, graphic organizers, self-assessment, individual white boards, math tools/games  **Summative:**  Daily common core review, quick check, multiple-choice, topic test, free-response topic test, performance assessment, cumulative test, benchmark test |
| **Enduring Understanding Resources** | |
| 1. Graphs organize information and contain labels. 2. Pictures and bars can represent numbers in graphs. 3. Different graphs may display different scales. 4. Measurements on a line plot displays information in an organized way. 5. When solving two step problems perform operations in the conventional order (no parentheses) and use rounding as an estimation strategy. 6. Areas of rectilinear figures can be determined decomposing them into non-overlapping rectangles and adding the areas of the parts. | Envision Math Series 2.0, Pearson 2016  Student Manipulatives  Pearson Success Net (online tools)  Math Instructional Coach  Compass Learning Odyssey  Technology:  [www.coolmath.com](http://www.coolmath.com), [www.aplusmath.com](http://www.aplusmath.com)  [www.mathplayground.com](http://www.mathplayground.com), [www.xtramath.com](http://www.xtramath.com)  3.MD.C.7d Three Hidden Rectangles  3.OA.D.8 The Stamp Collection  3.NBT.A.2, 3.MD.B.3, 3.OA.A.3 Classroom Supplies |