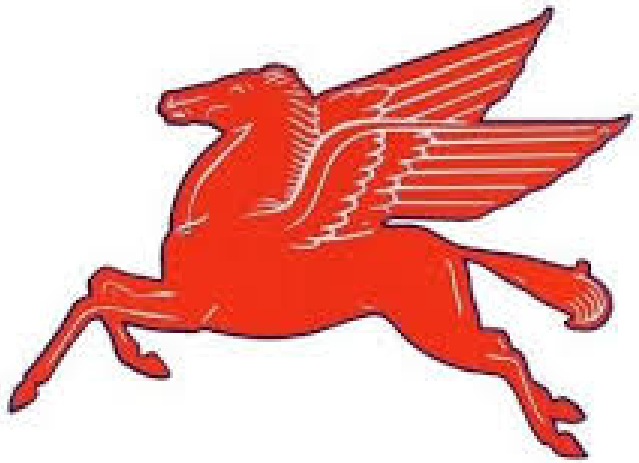
Curriculum Management System

PAULSBORO PUBLIC SCHOOLS



Mathematics – Grade 3

UPDATED 2020-2021

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: October 2021

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Paulsboro Public Schools

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Paulsboro Public Schools

Mission Statement

The mission of the Paulsboro School District is to work with students, parents, educators, and community to develop excellence in education while preparing each student to be viable and productive citizens in society. Our goal is to develop the unique potential of the whole student by creating a challenging and diverse learning climate that prepares students for the 21st Century and is rich in tradition and pride.

TOPIC	# OF DAYS	COMMENTS
1 – Numeration (sample)	*7*	*Focus On Understanding Decimals*
Topic 1 – Understand Multiplication and Division of Whole Numbers	12	Represent and solve problems involving multiplication and division.
Topic 2 – Multiplication Facts: Use Patters	10	Represent and solve problems involving multiplication and division
Topic 3 – Apply Properties: Multiplication Facts for 3, 4, 6, 7, 8	14	Understand properties of multiplication and the relationship between multiplication and division.
Topic 4 – Use Multiplication to Divide: Division Facts	9	Understand properties of multiplication and the relationship between multiplication and division.
Topic 5 – Fluently Multiply and Divide within 100	14	Multiply and divide with 100.
Topic 6 – Connect Area to Multiplication and Addition	10	Geometric measurement: Understand concepts of area and relate area to multiplication and addition.
Topic 11 – Use Operations with Whole Numbers to Solve Problems	10	Solve problems involving the four operations, and identify and explain patterns in arithmetic.
Topic 12 – Understand Fractions as Numbers	9	Develop understanding of fractions as numbers.
Topic 13 – Fraction Equivalence and Comparison	10	Develop understanding of fractions as numbers.
Topic 14 – Solve Time, Capacity, and Mass Problems	15	Solve problems involving measurement and estimation.
Topic 7 – Represent and Interpret Data	10	Represent and interpret data.
Topic 15 – Attributes of Two-Dimensional Shapes	11	Reason with shapes and their attributes.
Topic 8 – Use Strategies and Properties to Add and Subtract	15	Use place-value understanding and properties of operations to perform multi-digit arithmetic.
Topic 9 – Fluently Add and Subtract within 1,000	10	Use place-value understanding and properties of operations to perform multi-digit arithmetic.

Topic 10 – Multiply by Multiples of 10	7	Use place-value understanding and properties of operations to perform multi-digit arithmetic.
Topic 16 – Solve Perimeter Problems	8	Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.

DEFINITIONS

NJ Student Learning Standards – Clear and specific benchmarks for students' achievement in various content areas. The standards ensure that each child receives a "thorough and efficient education".

21st Century Life and Careers Standards – These skills that are comprised of the "12 Career Ready Practices" and Standards 9.1 through 9.4. The organization of these standards intends to enable students to make informed decisions that prepare them to engage as active citizens in global society and be prepared for the opportunities of the 21st century workplace.

ELA Companion Standards – Consists of standards for reading and writing in History, Social Studies, Science and Technical subjects. ELA curricula

Gifted and Talented Learners – Students with high-ability who may need more depth and complexity in instruction.

Special Education Learners – Students in need of supports and interventions to improve student achievement

English Language Learners – Students with a native language other than English or who are at varying degrees of English language proficieny.

Quarter 1 -
Big Idea: Understand Multiplication and Division of Whole Numbers
Topic 1: Multiplication as Repeated Addition, Multiplication on the Number Line, Arrays and Multiplication, The Commutative Property, Division as Sharing, Division as Repeated Subtraction, Math Practices and Problem Solving: Use Appropriate Tools

Standards:

NJ Student Learning Standards:
MA.3.OA.A.1 –
MA.3.OA.A.2 -.
MA.3.OA.A.3
MA.3.OA.B.5

21st Century Life and Careers:
CAEP.9.2.4.A.1
CAEP.9.2.4.A.4

Technology Standards:

TECH.8.1.5.A.CS1
TECH.8.1.5.A.1

ELA Companion Standards:

Anchor Standards:
LA.RL.3.1
LA.RL.3.4
LA.RI.3.3
LA.RI.3.4
LA.RF.3.4.A
LA.W.3.1.B
LA.L.3.1
LA.L.3.2
LA.L.3.2.E

GOAL

SWBAT

- Use repeated addition to show the relationship between multiplication and addition.
- Use number lines to join equal groups.
- Use arrays as one way to think about and understand multiplication.
- Understand and use the Commutative Property of Multiplication.
- Use sharing to separate equal groups and to think about division.
- Use repeated subtraction to show the relationship between division and subtraction.
- Think strategically about available tools that can be used to solve problems.

Essential Questions	Assessments
What are the different meanings of multiplication and division?	Placement Assessment Fluency Practice Activity Topic Assessment Topic Performance Assessment Lesson Quick Checks Online Topic Assessment Practice Buddy Basic-Facts Timed Tests
Enduring Understanding	**Resources**
• Some real-world problems that involve joining or separating equal groups or making comparisons can be solved using multiplication. Repeated addition that involves joining equal	Textbook www.savvasrealize.com Two-color counters (Teaching Tool 9) Number lines (Teaching Tool 7) Colored pencils Centimeter grid paper (Teaching Tool 13)

MODIFICATIONS: **Advanced Learners:** Center Games Problem-Solving reading mat Math and Science activity **Students with Disabilities:** Students Hands on activity, cooperative learning, peer tutoring, extended time, reteach in utilizing various methods. Utilize remediation resources which include assessment and intervention, in planning and instruction. **English Language Learners**: Use visual support to develop background knowledge. Show listening comprehension. Use visual support to enhance understanding Demonstrate comprehension by responding to questions. Use support from teachers to enhance understanding.	groups is one way to think about multiplication. • Multiplication on the number line can involve joining equal groups and is one way to think about multiplication. • An array involves displaying objects in equal rows and columns, and is one way to think about multiplication. • Two numbers can be multiplied in any order and the product remains the same. • Sharing involves separating equal groups and is one way to think about division. • Repeated subtraction involves separating equal groups and is one way to think about division. • Good math thinkers know how to pick the right tools to solve math problems.	

QUARTER 1 –

Big Idea: Multiplication Facts: Use Patterns

Topic 2: 2 and 5 as Factors, 9 as a Factor, Multiply by 0 and 1, Multiply by 10, Multiplication Facts: 0, 1, 2, 5, 9, and 10, Model With Math

Standards:

NJ Student Learning Standards:
3.OA.A.3
3.OA.A.1
3.OA.D.9
3OA.B.5

21st Century Life and Careers:
CAEP.9.2.4.A.1
CAEP.9.2.4.A.4

Technology Standards:
TECH.8.1.5.A.CS1
TECH.8.1.5.A.1

ELA Companion Standards in History, Social Studies, Science & Technical Subjects:

Anchor Standards:
LA.RL.3.1
LA.RL.3.4
LA.RI.3.3
LA.RI.3.4
LA.RF.3.4.A
LA.W.3.1.B
LA.L.3.1
LA.L.3.2
LA.L.3.2.E

GOAL

SWBAT

- Gain fluency in multiplication when using 2 and 5 as factors.
- Gain fluency in multiplication when using 9 as a factor.
- Gain fluency in multiplication when multiplying by 0 or 1.
- Gain fluency in multiplication when multiplying by 10.
- Students will use number relationships and patterns to develop reasoning strategies to support their recall of basic multiplication facts.
- Use previously learned concepts and skills to represent and solve problems.

Essential Questions	Assessments
How can unknown multiplication facts be found using patterns and properties?	Fluency Practice Activity Topic Assessment Topic Performance Assessment Lesson Quick Checks Online Topic Assessment Practice Buddy Basic-Facts Timed Tests
Enduring Understanding	**Resources**
• There are patterns in the products for multiplication with factors of 2, 5, 9, 0 or 1. • The product of 0 and any number is 0. The product of 1 and any number is that same number.	Textbook www.savvasrealize.com Two-color counters (Teaching Tool 9) Color cubes Place value blocks (Teaching Tool 3)

MODIFICATIONS: Advanced Learner: Center Games where do we find – hyperlink to resources any place we can go to right now for the resources. Problem-Solving reading mat Math and Science activity **Students with Disabilities:** Students Hands on activity cooperative learning peer tutoring extended time reteach in utilizing various methods. Utilize remediation resources which include assessment and intervention, in planning and instruction. **English Language Learners:** Expand comprehension by making connection. Use visual support to confirm understanding. Demonstrate comprehension by retelling information. Use contextual support to enhance understanding.	• Patterns can be used to solve multiplication problems with a factor of 10. • Basic multiplication facts can be found by identifying patterns. • Good math thinkers choose and apply math they know to show and solve problems from everyday life.	

QUARTER 1 –

Big Idea: Apply Properties: Multiplication Facts for 3, 4, 6, 7, 8

Topic 3: The Distributive Property, Apply Properties: 3 as a Factor, Apply Properties: 4 as a Factor, Apply Properties: 6 and 7 as Factors, Apply Properties: 8 as a Factor, Practice Multiplication Facts, the Associative Property: Multiply With 3 Factors, Repeated Reasoning

Standards:

NJ Student Learning Standards:

3.OA.B.5
3.OA.A.3
3.OA.D.9

21st Century Life and Careers:

CAEP.9.2.4.A.1
CAEP.9.2.4.A.4

Technology Standards:

TECH.8.1.5.A.CS1
TECH.8.1.5.A.1

ELA Companion Standards in History, Social Studies, Science & Technical Subjects:

Anchor Standards:

LA.RL.3.1
LA.RL.3.4
LA.RI.3.3
LA.RI.3.4
LA.RF.3.4.A
LA.W.3.1.B
LA.L.3.1
LA.L.3.2
LA.L.3.2.E

GOAL

SWBAT

- Use the Distributive Property to solve problems involving multiplication within 100.
- Use appropriate tools and the Distributive Property to break apart unknown facts with 3 as a factor.
- Use the Distributive Property to break apart unknown facts with 4 as a factor.
- Use the Distributive Property to break apart unknown facts with 6 or 7 as a factor.
- Use the Distributive Property and known facts to break apart unknown facts with 8 as a factor.
- Use strategies such as bar diagrams and arrays with known facts to solve multiplication problems.
- Use the Associative Property of Multiplication to group 3 factors and multiply.
- Use repeated reasoning with known facts to make generalizations when multiplying.

Essential Questions	Assessments
How can unknown multiplication facts be found using known facts?	Fluency Practice Activity Topic Assessment Topic Performance Assessment Lesson Quick Checks Online Topic Assessment Practice Buddy Basic-Facts Timed Tests

MODIFICATIONS: **Advanced Learner:** Center Games Problem-Solving reading mat Math and Science activity **Students with Disabilities:** Students Hands on activity cooperative learning peer tutoring extended time reteach in utilizing various methods. Utilize remediation resources which include assessment and intervention, in planning and instruction. **English Language Learners:** Learn basic/academic vocabulary Speak using content area vocabulary in context. Learn new academic expressions. Demonstrate comprehension by responding to questions. Ask and give information using key words. Express idea.	**Enduring Understanding** • The Distributive Property can be used to break a large array into smaller arrays. • Basic multiplication facts with 3, 4, 6, 7, and 8 as a factor can be found by breaking apart the unknown fact into known facts. The answers to the known facts are added to get the final product. • Strategies such as bar diagrams and arrays with known facts can be used to solve multiplication problems. • Three or more numbers can be grouped and multiplied in any order. • Good math thinkers look for things that repeat, and they make generalizations.	**Resources** Textbook www.savvasrealize.com Two-color counters (Teaching Tool 9) Pieces of string Index cards pencils centimeter grid paper (Teaching Tool 13) colored pencils paper cups

QUARTER 1 –

Big Idea: Use Multipolication to Divide: Division Facts

Topic 4: Relate Multiplication and Division, Use Multiplication to Divide with 2, 3, 4, and 5, Use Multiplication to Divide with 6 and 7, Use Multiplication to Divide With 8 and 9, Multiplication Patterns: Even and Odd Numbers, Division involving 0 and 1, Practice Multiplication and Division Facts, Solve Multiplication and Division Equations, Make Sense and Persevere

Standards:

NJ Student Learning Standards:

3.OA.B.6
3.OA.A.3
3.OA.D.9
3.OA.B.5
3.OA.A.4
3.OA.D.8

21st Century Life and Careers:

CAEP.9.2.4.A.1
CAEP.9.2.4.A.4

Technology Standards:

TECH.8.1.5.A.CS1
TECH.8.1.5.A.1

ELA Companion Standards in History, Social Studies, Science & Technical Subjects:

Anchor Standards:

LA.RL.3.1
LA.RL.3.4
LA.RI.3.3
LA.RI.3.4
LA.RF.3.4.A
LA.W.3.1.B
LA.L.3.1

GOAL

SWBAT

- Use multiplication facts to divide.
- Use multiplication facts to find related division facts.
- Use knowledge of even and odd numbers to identify multiplication patterns.
- Use properties to understand division involving 0 and 1.
- Use patterns and known facts to find unknown multiplication facts.
- Use multiplication and division facts to find unknown values in equations.
- Use previously learned concepts to find and answer hidden questions to solve problems.

Essential Questions	Assessments
How can unknown division facts be found using known multiplication facts?	Fluency Practice Activity Topic Assessment Topic Performance Assessment Lesson Quick Checks Online Topic Assessment Practice Buddy Basic-Facts Timed Tests Topics 1-4 Benchmark

LA.L.3.2 LA.L.3.2.E	Enduring Understanding	Resources
MODIFICATIONS: **Advanced Learner:** Center Games Problem-Solving reading mat Math and Science activity **Students with Disabilities:** Students Hands on activity cooperative learning peer tutoring extended time reteach in utilizing various methods. Utilize remediation resources which include assessment and intervention, in planning and instruction. **English Language Learners:** Learn academic vocabulary Demonstrate listening comprehension by responding to questions. Speak using content area vocabulary in context Share information in cooperative learning interactions.	• Multiplication and division have an inverse relationship. • The inverse relationship between multiplication and division can be used to find division facts; every division fact has a related multiplication fact. • Factors and products can be identified by patterns as well as other characteristics, such as even or odd. • Any number (except 0) divided by itself is equal to 1. Any number divided by 1 is that number. 0 divided by any number (except 0) is 0. 0 cannot be a divisor. • Patterns and known facts can be used to find unknown multiplication facts. Division facts can be found by thinking of a related multiplication fact. • You can use a multiplication or division fact to find the unknown value in an equation. • Good math thinkers make sense of problems and think of ways to solve them. If they get stuck, they don't give up.	Textbook www.savvasrealize.com Two-color counters (Teaching Tool 9) colored pencils Multiplication table (Teaching Tool 11)

QUARTER 2–

Big Idea: Fluently Multiply and Divide Within 100

Topic 5: Patterns for Multiplication Facts, Use a Multiplication Table, Find Missing Numbers in a Multiplication Table, Use Strategies to Multiply, Solve Word Problems: Multiplication and Division Facts, Write Math Stories: Multiplication, Write Math Stories: Division, Look for and Use Structure

Standards:

NJ Student Learning Standards:

3.OA.D.9
3.OA.C.7
3.OA.A.3

21st Century Life and Careers:

CAEP.9.2.4.A.1
CAEP.9.2.4.A.4

Technology Standards:

TECH.8.1.5.A.CS1
TECH.8.1.5.A.1

ELA Companion Standards in History, Social Studies, Science & Technical Subjects:

Anchor Standards:

LA.RL.3.1
LA.RL.3.4
LA.RI.3.3
LA.RI.3.4
LA.RF.3.4.A
LA.W.3.1.B
LA.L.3.1
LA.L.3.2
LA.L.3.2.E

GOAL

SWBAT

- Use the multiplication table and the Distributive Property to find patterns in factors and products.
- Use a multiplication table to find the missing factor in a division problem.
- Use number sense and reasoning while practicing multiplication and division basic facts.
- Use strategies such as skip counting and properties of operations to multiply.
- Solve multiplication and division problems that involve different strategies and representations.
- Use multiplication and division to write and solve real-world problems involving equal groups.
- Use the structures of multiplication and division to compare expressions.

Essential Questions	Assessments
What are strategies to solve multiplication and division facts?	Fluency Practice Activity Topic Assessment Topic Performance Assessment Lesson Quick Checks Online Topic Assessment Practice Buddy Basic-Facts Timed Tests

MODIFICATIONS: **Advanced Learner:** Center Games Problem-Solving reading mat Math and Science activity **Students with Disabilities:** Students Hands on activity cooperative learning peer tutoring extended time reteach in utilizing various methods. Utilize remediation resources which include assessment and intervention, in planning and instruction. **English Language Learners:** Give information using key words. Use visual support to confirm understanding. Use prior knowledge to understand meanings. Demonstrate comprehension by retelling information.	**Enduring Understanding**	**Resources**
	• There are patterns in the factors and the products for multiplication facts. • Any division problem can be thought of as a missing factor multiplication problem. • Strategies and reasoning can be used to recall multiplication and division basic facts. • Strategies such as using properties of operations, drawings, and skip counting can be used to multiply. • Some real-world problems can be represented and solved using different multiplication and division strategies. • Some real-world problems that involve equal groups can be solved using multiplication or division. • Good math thinkers look for relationships in math to help solve problems.	Textbook www.savvasrealize.com Two-color counters (Teaching Tool 9) colored pencils Multiplication table (Teaching Tool 11)

QUARTER 2 –
Big Idea: Connect Area to Multiplication and Addition
Topic 6: Cover Regions, Area: Nonstandard Units, Area: Standard Units, Area of Squares and Rectangles, Apply Properties: Area and the Distributive Property, Apply Properties: Area of Irregular Shapes, Look for and Use Stucture

Standards:

NJ Student Learning Standards:
3.MD.C.5a
3.MD.C.5b
3.MD.C.6
3.MD.C.7a
3.MD.C.7b
3.MD.C.7c
3.MD.C.7d

21st Century Life and Careers:
CAEP.9.2.4.A.1
CAEP.9.2.4.A.4

Technology Standards:
TECH.8.1.5.A.CS1
TECH.8.1.5.A.1

ELA Companion Standards in History, Social Studies, Science & Technical Subjects:

Anchor Standards:
LA.RL.3.1
LA.RL.3.4
LA.RI.3.3
LA.RI.3.4

GOAL

SWBAT

- Use unit squares to find the area of a shape.
- Use unit squares to find the area of a figure.
- Use standard units to measure the area of a shape.
- Use unit squares and multiplication to find the areas of squares and rectangles.
- Use areas of rectangles to model the Distributive Property of Multiplication.
- Use areas of rectangles to find the area of irregular shapes.
- Solve problems by breaking apart or changing the problem into simpler problems.

Essential Questions	Assessments
How can area be measured and found?	Fluency Practice Activity Topic Assessment Topic Performance Assessment Lesson Quick Checks Online Topic Assessment Practice Buddy Basic-Facts Timed Tests

Enduring Understanding	Resources
• The amount of space inside a shape is its area, and area can be found or estimated using unit squares.	Textbook www.savvasrealize.com Two-color tiles (Teaching Tool 8) Area Of Shapes (Teaching Tool 12)

LA.RF.3.4.A **LA.W.3.1.B** **LA.L.3.1** **LA.L.3.2** **LA.L.3.2.E** **MODIFICATIONS:** **Advanced Learner:** Center Games Problem-Solving reading mat Math and Science activity **Students with Disabilities:** Students Hands on activity cooperative learning peer tutoring extended time reteach in utilizing various methods. Utilize remediation resources which include assessment and intervention, in planning and instruction. **English Language Learners:** Learn academic vocabulary Expand comprehension by predicting Express opinions Explain content area information Use visual support to enhance understanding.	• Area can be measured using nonstandard units, including unit squares of different sizes. • Standard measurement units are used for consistency in finding and communicating measurements. • The amount of space inside a region is its area, and area can be found by counting unit squares or by multiplying the side lengths. • The areas of rectangles can be used to model the Distributive Property. • The area of some irregular shapes can be found by dividing the original shape into rectangles finding the area of each rectangle, and adding all of the areas. • Good math thinkers look for relationships in math to help solve problems.	Centimeter grid paper (Teaching Tool 13) Unlined white paper Rulers (Teaching Tool 18 and 19) colored pencils 1-inch grid paper (Teaching Tool 14) Pieces of colored yarn scissors

QUARTER 2 –
Big Idea: Use Operations With Whole Numbers to Solve Problems
Topic 11: Solve 2-Step Word Problems: Addition and Subtraction, Solve 2-Step Word Problems: Multiplication and Division, Solve 2-Step Word Problems: All Operations, Critique Reasoning

Standards:

NJ Student Learning Standards:
3.OA.D.8

21st Century Life and Careers:
CAEP.9.2.4.A.1
CAEP.9.2.4.A.4

Technology Standards:
TECH.8.1.5.A.CS1
TECH.8.1.5.A.1

ELA Companion Standards in History, Social Studies, Science & Technical Subjects:

Anchor Standards:
LA.RL.3.1
LA.RL.3.4
LA.RI.3.3
LA.RI.3.4
LA.RF.3.4.A
LA.W.3.1.B
LA.L.3.1
LA.L.3.2
LA.L.3.2.E

GOAL

SWBAT:

- Draw diagrams and write equations to solve two-step problems involving addition and subtraction of whole numbers.
- Draw diagrams and write equations to solve two-step problems involving multiplication and division of whole numbers.
- Examine relationships between quantities in a two-step word problem by writing equations. Choose and apply the operations needed to find the answer.
- Critique the reasoning of others by asking questions, identifying mistakes, and providing suggestions for improvement.

Essential Questions	Assessments
What are ways to solve 2-step problems?	Fluency Practice Activity Topic Assessment Topic Performance Assessment Lesson Quick Checks Online Topic Assessment Practice Buddy Basic-Facts Timed Tests
Enduring Understanding	**Resources**
• Bar diagrams show relationships in a two-step word problem and help identify the operation or operations needed to solve the problem. • The way quantities in a two-step problem are related determines the	Textbook www.savvasrealize.com

MODIFICATIONS: **Advanced Learner:** Center Games Problem-Solving reading mat Math and Science activity **Students with Disabilities:** Students Hands on activity cooperative learning peer tutoring extended time reteach in utilizing various methods. Utilize remediation resources which include assessment and intervention, in planning and instruction. **English Language Learners:** Demonstrate listening comprehension by following directions. Use graphic organizers for comprehending written material. Share information in cooperative learning interactions.	operations used to solve the problem. Equations show these relationships. • Good math thinkers use math to explain why they are right. They can talk about the math that others do, too.	

QUARTER 2 –

Big Idea: Understand Fractions as Numbers

Topic 12: Divide Regions Into Equal Parts, Fractions and Regions, Understand the Whole, Number Line: Fractions Less Than 1, Number Line: Fractions Greater Than 1, Line Plots and Length, More Line Plots and Length, Make Sense and Persevere

Standards:

NJ Student Learning Standards:

3.NF.A.1
3.G.A.2
3.NF.A.3c
3.NF.A.2a
3.NF.A.2b
3.MD.B.4

21st Century Life and Careers:

CAEP.9.2.4.A.1
CAEP.9.2.4.A.4

Technology Standards:

TECH.8.1.5.A.CS1
TECH.8.1.5.A.1

ELA Companion Standards in History, Social Studies, Science & Technical Subjects:

Anchor Standards:

LA.RL.3.1
LA.RL.3.4
LA.RI.3.3

GOAL

SWBAT

- Understand how to read and write unit fractions for equal-size parts of a region.
- Use a fraction to represent multiple copies of a unit fraction.
- Determine and draw the whole (unit) given on part (unit fraction).
- Represent fractions on a number line.
- Represent fractions greater than 1 on a number line.
- Measure length to the nearest fourth inch and show the data on a line plot.
- Measure length to the nearest half inch and show the data on a line plot.
- Determine when a problem has either extra or missing information.

Essential Questions	Assessments
What are different interpretations of a fraction?	Fluency Practice Activity Topic Assessment Topic Performance Assessment Lesson Quick Checks Online Topic Assessment Practice Buddy Basic-Facts Timed Tests Benchmark Assessment

LA.RI.3.4 **LA.RF.3.4.A** **LA.W.3.1.B** **LA.L.3.1** **LA.L.3.2** **LA.L.3.2.E** **MODIFICATIONS:** **Advanced Learner:** Center Games Problem-Solving reading mat Math and Science activity **Students with Disabilities:** Students Hands on activity cooperative learning peer tutoring extended time reteach in utilizing various methods. Utilize remediation resources which include assessment and intervention, in planning and instruction. **English Language Learners:** Use and reuse academic language in meaningful ways when speaking. Ask and give information using key words. Use visual support to enhance understanding. Learn basic vocabulary. Speak using content area vocabulary in context.		
	Enduring Understanding	**Resources**
	• A unit fraction represents one part of a whole that has been divided into equal parts. A fraction can represent multiple copies of a unit fraction. • The whole can be found given a fractional part. • Points on a number line can represent fractions. The denominator represents the number of equal parts between 0 and 1, and the numerator represents the number of parts between 0 and the point. • A number line can be used to represent fractions greater than 1. • A line plot is a way to organize data on a number line. • Good math thinkers make sense of problems and think of ways to solve them. If they get stuck, they don't give up.	Textbook www.savvasrealize.com Drawing paper Colored pencils Fraction Strips (Teaching Tool 15) Rulers (Teaching Tool 18 and 19) Paper Number lines (Teaching Tool 7) Strips of paper

QUARTER 3 –

Big Idea: Fraction Equivalence and Comparison

Topic 13: Equivalent Fractions: Use Models, Equivalent Fractions: Use the Number Line, Use Models to Compare Fractions: Same Denominator, Use Models to Compare Fractions: Same Numerator, Compare Fractions: Use Benchmarks, Compare Fractions: Use the Number Line, Whole Numbers and Fractions, Comstruct Arguments

Standards:

NJ Student Learning Standards:

3.NF.A.3a
3.NF.A.3b
3.NF.A.3d
3.NF.A.3c

21st Century Life and Careers:

CAEP.9.2.4.A.1
CAEP.9.2.4.A.4

Technology Standards:

TECH.8.1.5.A.CS1
TECH.8.1.5.A.1

ELA Companion Standards in History, Social Studies, Science & Technical Subjects:

Anchor Standards:

LA.RL.3.1
LA.RL.3.4
LA.RI.3.3
LA.RI.3.4
LA.RF.3.4.A
LA.W.3.1.B
LA.L.3.1
LA.L.3.2
LA.L.3.2.E

GOAL

SWBAT

- Find equivalent fractions that name the same part of the whole.
- Represent equivalent fractions on a number line.
- Use models such as fraction strips to compare fractions that refer to the same whole and have the same denominator.
- Use models such as fraction strips to compare fractions that refer to the same whole and have the same numerator.
- Use benchmark numbers to compare fractions.
- Use a number line to compare fractions.
- Use fraction names to represent whole numbers.
- Construct math arguments using fractions.

Essential Questions	Assessments
What are different ways to compare fractions?	Fluency Practice Activity Topic Assessment Topic Performance Assessment Lesson Quick Checks Online Topic Assessment Practice Buddy Basic-Facts Timed Tests

	Enduring Understanding	Resources
MODIFICATIONS: **Advanced Learner:** Center Games Problem-Solving reading mat Math and Science activity **Students with Disabilities:** Students Hands on activity cooperative learning peer tutoring extended time reteach in utilizing various methods. Utilize remediation resources which include assessment and intervention, in planning and instruction. **English Language Learners:** Speak using content area vocabulary in context. Monitor language production. Develop basic sight vocabulary. Learn academic vocabulary. Use visual supports to confirm understanding. Express opinions. Demonstrate comprehension by summarizing information.	• The same fractional amount can be represented by an infinite set of different but equivalent fractions. • There are a limitless number of fraction names for each point on a number line. These points can be used to name equivalent fractions. • If two fractions have the same denominator, the fraction with the greater numerator is the greater fraction. • If two fractions have the same numerator, the fraction with the greater denominator is less than the other fraction. • Benchmark numbers such as 0, ½, and 1 can be used to compare fractions. • You can use a number line to compare fractions. • Whole numbers can be represented by many different fraction names. • Good math thinkers use math to explain why they are right. They can talk about the math that others do, too.	Textbook www.savvasrealize.com Fraction Strips (Teaching Tool 15) Red pencils Number lines (Teaching Tool 7)

QUARTER 3 –

Big Idea: Solve Time, Capacity, and Mass Problems

Topic 14: Time to the Minute, Units of Time: Measure Elapsed Time, Units of Time: Solve Word Problems, Estimate Liquid Volume, Measure Liquid Volume, Estimate Mass, Measure Mass, Solve Word Problems involving Mass and Liquid Volume, Reasoning

Standards:

NJ Student Learning Standards:
3.MD.A.1
3.MD.A.2

21st Century Life and Careers:
CAEP.9.2.4.A.1
CAEP.9.2.4.A.4

Technology Standards:
TECH.8.1.5.A.CS1
TECH.8.1.5.A.1

ELA Companion Standards in History, Social Studies, Science & Technical Subjects:

Anchor Standards:
LA.RL.3.1
LA.RL.3.4
LA.RI.3.3
LA.RI.3.4
LA.RF.3.4.A
LA.W.3.1.B
LA.L.3.1
LA.L.3.2
LA.L.3.2.E

GOAL

SWBAT

- Show and tell time to the nearest minute using analog and digital clocks.
- Tell and write time to the nearest minute and measure time intervals in minutes.
- Solve word problems involving addition and subtraction to measure quantities of time.
- Use standard units to estimate liquid volume.
- Use standard units to estimate the masses of solid objects.
- Use a pan balance with metric weights to measure the mass of objects in grams and kilograms.
- Use pictures to help solve problems about mass and volume.
- Make sense of quantities and relationships in problems.

Essential Questions	Assessments
How can time, capacity, and mass be measured and found?	Fluency Practice Activity Topic Assessment Topic Performance Assessment Lesson Quick Checks Online Topic Assessment Practice Buddy Basic-Facts Timed Tests

MODIFICATIONS:

Advanced Learner:
Center Games
Problem-Solving reading mat
Math and Science activity

Students with Disabilities:
Students Hands on activity
cooperative learning
peer tutoring
extended time
reteach in utilizing various methods.
Utilize remediation resources which include assessment and intervention, in planning and instruction.

English Language Learners:
Use prior knowledge to understand meanings.
Use visual support to develop vocabulary.
Speak using content area vocabulary in context.
Use abstract and content-based vocabulary during speaking assignments.
Express ideas.
Use support from peers and teachers to confirm understanding.

Enduring Understanding	Resources
• Clocks can be used to tell time to the nearest minute. • Elapsed time can be found by finding the total amount of time that passes between a starting time and an ending time. • Time intervals can be added or subtracted to solve problems. • Benchmarks can be used to estimate capacity (liquid volume). • Capacity (liquid volume) is a measure of the amount of liquid a container can hold. • Mass is a measure of the quantity of matter in an object. • Problems involving mass and volume can often be solved with a picture or diagram. • Good math thinkers know how to think about words and numbers to solve problems.	Textbook www.savvasrealize.com Blank clock faces (Teaching Tool 20) Colored pencils Number lines (Teaching Tool 7) 1-liter bottles Large bowls Assorted containers Marked 1-liter beaker Six containers Soup can Differently-sized soup bowls Large pot Water Pan balance Gram and kilogram weights Classroom objects Metric weights

QUARTER 3 –
Big Idea: Represent and Interpret Data
Topic 7: Read Picture Graphs and Bar Graphs, Make Picture Graphs, Make Bar Graphs, Solve Word Problems Using Information in Graphs, Precision

Standards:

NJ Student Learning Standards:
3.MD.B.3
3.OA.A.3
3.OA.D.8

21st Century Life and Careers:
CAEP.9.2.4.A.1
CAEP.9.2.4.A.4

Technology Standards:
TECH.8.1.5.A.CS1
TECH.8.1.5.A.1

ELA Companion Standards in History, Social Studies, Science & Technical Subjects:

Anchor Standards:
LA.RL.3.1
LA.RL.3.4
LA.RI.3.3
LA.RI.3.4
LA.RF.3.4.A
LA.W.3.1.B
LA.L.3.1
LA.L.3.2
LA.L.3.2.E

GOAL

SWBAT

- Use graphs to compare and interpret data.
- Use frequency tables and picture graphs to compare and interpret data.
- Use scaled bar graphs to represent data sets.
- Use graphs to solve problems.
- Use words, symbols, and numbers to accurately and precisely solve math problems.

Essential Questions	Assessments
How can data be represented, interpreted, and analyzed?	Fluency Practice Activity Topic Assessment Topic Performance Assessment Lesson Quick Checks Online Topic Assessment Practice Buddy Basic-Facts Timed Tests

Enduring Understanding	Resources
• Certain types of graphs are appropriate for certain kinds of data. Picture graphs and bar graphs make it easy to compare data.	Textbook www.savvasrealize.com Two-color tiles (Teaching Tool 8) 1-inch grid paper (Teaching Tool 14) Centimeter grid paper (Teaching Tool 13)

MODIFICATIONS: **Advanced Learner:** Center Games Problem-Solving reading mat Math and Science activity **Students with Disabilities:** Students Hands on activity cooperative learning peer tutoring extended time reteach in utilizing various methods. Utilize remediation resources which include assessment and intervention, in planning and instruction. **English Language Learners:** Use visual support to confirm understanding. Explain content area information. Demonstrate comprehension by taking notes. Learn new language structure. Demonstrate listening comprehension by collaborating with peers.	• The type of graph used is based on the data being presented. The key for a picture graph determines the number of pictures needed to represent the data. • In a scaled bar graph, the scale determines how long each bar needs to be to represent every number in the data set. • Some problems can be solved by making, reading, and analyzing a graph. • Good math thinkers are careful about what they write and say, to their ideas about math are clear.	

QUARTER 3 –
Big Idea: Attributes of Two-Dimensional Shapes
Topic 15: Describe Quadrilaterals, Classify Shapes, Analyze and Compare Quadrilaterals, Precision

Standards:

NJ Student Learning Standards:
3.G.A.1

21st Century Life and Careers:
CAEP.9.2.4.A.1
CAEP.9.2.4.A.4

Technology Standards:
TECH.8.1.5.A.CS1
TECH.8.1.5.A.1

ELA Companion Standards in History, Social Studies, Science & Technical Subjects:

Anchor Standards:
LA.RL.3.1
LA.RL.3.4
LA.RI.3.3
LA.RI.3.4
LA.RF.3.4.A
LA.W.3.1.B
LA.L.3.1
LA.L.3.2
LA.L.3.2.E

GOAL

SWBAT

- **Identify quadrilaterals and use attributes to describe them.**
- **Classify shapes according to their attributes.**
- **Analyze and compare quadrilaterals and group them by their attributes.**
- **Solve math problems precisely, efficiently, and accurately by using appropriate tools and mathematics vocabulary.**

Essential Questions	Assessments
How can two-dimensional shapes be described, analyzed, and classified?	Fluency Practice Activity Topic Assessment Topic Performance Assessment Lesson Quick Checks Online Topic Assessment Practice Buddy

Enduring Understanding	Resources
• Quadrilaterals can be described and classified by their sides and angles. • Shapes can be classified by their attributes. • Quadrilaterals can be classified by their attributes.	Textbook www.savvasrealize.com Quadrilaterals – (Teaching Tool 21) Colored pencils Assorted triangles cut from index cards Large sheet of paper Grid paper Rulers

MODIFICATIONS: **Advanced Learner:** Center Games Problem-Solving reading mat Math and Science activity **Students with Disabilities:** Students Hands on activity cooperative learning peer tutoring extended time reteach in utilizing various methods. Utilize remediation resources which include assessment and intervention, in planning and instruction. **English Language Learners:** Use support from peers to enhance understanding. Share information in cooperative learning interactions. Give information using key words. Use prior knowledge to understand meanings.	• Good math thinkers are careful about what they write and say, so their ideas about math are clear.	

QUARTER 4 –

Big Idea: Use Strategies and Properties to Add and Subtract

Topic 8: Addition Properties, Algebra: Addition Patterns, Round Whole Numbers, Mental Math: Addition, Mental Math: Subtraction, Estimate Sums, Estimate Differences, Relate Addition and Subtraction, Model with Math

Standards:

NJ Student Learning Standards:
3.NBT.A.1
3.NBT.A.2
3.OA.D.9

21st Century Life and Careers:
CAEP.9.2.4.A.1
CAEP.9.2.4.A.4

Technology Standards:
TECH.8.1.5.A.CS1
TECH.8.1.5.A.1

ELA Companion Standards in History, Social Studies, Science & Technical Subjects:

Anchor Standards:
LA.RL.3.1
LA.RL.3.4
LA.RI.3.3
LA.RI.3.4
LA.RF.3.4.A
LA.W.3.1.B
LA.L.3.1
LA.L.3.2
LA.L.3.2.E

GOAL

SWBAT

- Solve real-world problems using properties of addition.
- Identify patterns in the addition table and explain them using algebraic thinking.
- Use place value and a number line to round numbers.
- Use mental math to add and subtract.
- Use rounding or compatible numbers to estimate a sum or a difference.
- Solve one-step and multi-step problems using strategies based on the relationship between addition and subtraction.
- Solve one-step problems by modeling with math.

Essential Questions	Assessments
How can sums and differences be estimated and found mentally?	Fluency Practice Activity Topic Assessment Topic Performance Assessment Lesson Quick Checks Online Topic Assessment Practice Buddy Cumulative/Benchmark Assessment
Enduring Understanding	**Resources**
• Some real-world problems that involve joining, separating, part-part whole, or comparing can be solve using addition. Two or more numbers can be added in any order, and the sum of any number and 0 is that number.	Textbook www.savvasrealize.com Two-color counters or Teaching Tool 9 Drawing paper Colored pencils Number lines (Teaching Tool 7) Place-Value Blocks (Teaching Tool 3) Number Tiles (Teaching Tool 22)

MODIFICATIONS: **Advanced Learner:** Center Games Problem-Solving reading mat Math and Science activity **Students with Disabilities:** Students Hands on activity cooperative learning peer tutoring extended time reteach in utilizing various methods. Utilize remediation resources which include assessment and intervention, in planning and instruction. **English Language Learners:** Learn academic vocabulary. Speak using content area vocabulary in context. Learn new academic expressions Develop basic sight vocabulary Demonstrate listening comprehension by collaborating with peers.	• Generalizations about how addition works emerge from investigating patterns and reasoning about mathematical relationships. • Rounding is a process for finding multiples of 10 and 100, closest is a given number. • There is more than one way to do mental math. Techniques involve changing the numbers or the expressions so that calculations are easy to do mentally. • There is more than one way to do mental math. Techniques involve changing the numbers or the expressions so that calculations are easy to do mentally. • There is more than one way to estimate a sum and a difference. Two ways to estimate are rounding and using compatible numbers. • Addition and subtraction have an inverse relationship. That relationship can be used to solve problems. • Good math thinkers choose and apply math they know to show and solve problems from everyday life.	Index cards

QUARTER 4 –

Big Idea: Fluently Add and Subtract Within 1,000

Topic 9: Use Partial Sums to Add, Add 3-Digit Numbers, Continue to Add 3-Digit Numbers, Add 3 or More Numbers, Use Partial Differences to Subtract, Subtract 3-Digit Numbers, Continue to Subtract 3-Digit Numbers, Construct Arguments

Standards:

NJ Student Learning Standards:
3.NBT.A.2

21st Century Life and Careers:
CAEP.9.2.4.A.1
CAEP.9.2.4.A.4

Technology Standards:
TECH.8.1.5.A.CS1
TECH.8.1.5.A.1

ELA Companion Standards in History, Social Studies, Science & Technical Subjects:

Anchor Standards:
LA.RL.3.1
LA.RL.3.4
LA.RI.3.3
LA.RI.3.4
LA.RF.3.4.A
LA.W.3.1.B
LA.L.3.1
LA.L.3.2
LA.L.3.2.E

GOAL

SWBAT

- Add two 3-digit numbers by breaking apart problems into simpler problems.
- Add 3-digit numbers using the standard algorithm.
- Add three or more numbers using the standard algorithm.
- Subtract multi-digit numbers using the expanded algorithm.
- Subtract a 3-digit number from another 3-digit number with one or more zeros by using the standard algorithm.
- Use addition and subtraction to justify a conjecture.

Essential Questions	Assessments
What are standard procedures for adding and subtracting whole numbers?	Fluency Practice Activity Topic Assessment Topic Performance Assessment Lesson Quick Checks Online Topic Assessment Practice Buddy

Enduring Understanding	Resources
• The expanded algorithm for adding 3-digit numbers breaks the addition problem into a series of easier	Textbook www.savvasrealize.com Place-value blocks (Teaching Tool 3)

MODIFICATIONS: **Advanced Learner:** Center Games Problem-Solving reading mat Math and Science activity **Students with Disabilities:** Students Hands on activity cooperative learning peer tutoring extended time reteach in utilizing various methods. Utilize remediation resources which include assessment and intervention, in planning and instruction. **English Language Learners:** Demonstrate listening comprehension by responding to questions. Speak using content area vocabulary in context. Share information in cooperative learning interactions. Read linguistically accommodated content material to enhance understanding. Monitor language production. Use prior experiences to understand meanings.	problems based on place value. Answers to the simpler problems are then used to find the final sum. • The standard algorithm for adding 3-digit numbers is an extension to the standard algorithm for adding 2-digit numbers. • The addition of three or more numbers is an extension of adding two numbers. • The expanded algorithm for subtracting multi-digit numbers breaks a larger subtraction problem into a series of easier problems based on place value. Answers to the simpler problems are then used to find the final difference. • The standard algorithm for subtracting 3-digit numbers is an extension to the standard algorithm for subtracting 2-digit numbers. • Good math thinkers use math to explain why they are right. They can talk about the math that others do, too.	Place-value charts (Teaching Tool 5)

QUARTER 4 –
Big Idea: Multiply by Multiples of 10
Topic 10: Use an Open Number Line to Multiply, Use Properties to Multiply, Multiply by Multiples of 10, Look For and Use Structure

Standards:

NJ Student Learning Standards:
3.NBT.A.3

21st Century Life and Careers:
CAEP.9.2.4.A.1
CAEP.9.2.4.A.4

Technology Standards:
TECH.8.1.5.A.CS1
TECH.8.1.5.A.1

ELA Companion Standards in History, Social Studies, Science & Technical Subjects:

Anchor Standards:
LA.RL.3.1
LA.RL.3.4
LA.RI.3.3
LA.RI.3.4
LA.RF.3.4.A
LA.W.3.1.B
LA.L.3.1
LA.L.3.2
LA.L.3.2.E

GOAL

SWBAT

- Use an open number line to find products when one factor is a multiple of 10.
- Use properties of multiplication to find products when one factor is a multiple of 10.
- Use different strategies to find products when one factor is a multiple of 10.
- Use the structure of multiplication and place value to find products when one factor is a multiple of 10.

Essential Questions	Assessments
What are ways to multiply by multiples of 10?	Fluency Practice Activity Topic Assessment Topic Performance Assessment Lesson Quick Checks Online Topic Assessment Practice Buddy

Enduring Understanding	Resources
• An open number line can be used to find products when one factor is a multiple of 10. • Basic multiplication facts and properties of multiplication can be used to find products when one factor is a multiple of 10.	Textbook www.savvasrealize.com Number lines (Teaching Tool 7) Grid paper (Teaching Tool 14) Place Value blocks (Teaching Tool 3) Multiplication Tables (Teaching Tool 11)

MODIFICATIONS: **Advanced Learner:** Center Games Problem-Solving reading mat Math and Science activity **Students with Disabilities:** Students Hands on activity cooperative learning peer tutoring extended time reteach in utilizing various methods. Utilize remediation resources which include assessment and intervention, in planning and instruction. **English Language Learners:** Listen to information. Describe information Demonstrate listening comprehension by collaborating with peers. Demonstrate comprehension by responding to questions.	• Different strategies can be used to find products when one factor is a multiple of 10. • Good math thinkers look for relationships in math to help solve problems.	

QUARTER 1 –

Big Idea: Solve Perimeter Problems

Topic 16: Understand Perimeter, Perimeter of Common Shapes, Perimeter and Unknown Side Lengths, Same Perimeter/ Different Area, Same Area/Different Perimeter, Reasoning

Standards:

NJ Student Learning Standards:
3.MD.D.8
3.MD.C.7b

21st Century Life and Careers:
CAEP.9.2.4.A.1
CAEP.9.2.4.A.4

Technology Standards:
TECH.8.1.5.A.CS1
TECH.8.1.5.A.1

ELA Companion Standards in History, Social Studies, Science & Technical Subjects:

Anchor Standards:
LA.RL.3.1
LA.RL.3.4
LA.RI.3.3
LA.RI.3.4
LA.RF.3.4.A
LA.W.3.1.B
LA.L.3.1
LA.L.3.2
LA.L.3.2.E

GOAL

SWBAT

- Find the perimeter of different polygons.
- Find the perimeter of different polygons with common shapes.
- Use the given sides of a polygon and the known perimeter to find the unknown side length.
- Understand the relationship of shapes with the same perimeter and different areas.
- Understand the relationship of shapes with the same area and different perimeters.
- Understand the relationship between numbers in order to simplify and solve problems involving perimeter.

Essential Questions	Assessments
How can perimeter be measured and found?	Fluency Practice Activity Topic Assessment Topic Performance Assessment Lesson Quick Checks Online Topic Assessment Practice Buddy Cumulative /Benchmark Assessment End-of-Year Assessment

Enduring Understanding	Resources
• The distance around a figure is its perimeter.	Textbook www.savvasrealize.com Centimeter or 1-inch grid paper (Teaching Tool 13 or 14)

MODIFICATIONS: **Advanced Learner:** Center Games Problem-Solving reading mat Math and Science activity **Students with Disabilities:** Students Hands on activity cooperative learning peer tutoring extended time reteach in utilizing various methods. Utilize remediation resources which include assessment and intervention, in planning and instruction. **English Language Learners:** Use known, accessible language to learn essential language in the process. Speak using content area vocabulary in context. Use visual support to confirm understanding. Demonstrate listening comprehension by collaboration with peers. Use illustration to comprehend written material.	• To find the perimeter of a polygon, add the lengths of the sides. • Polygons with the same perimeter may have different areas. • Polygons with the same area may have different perimeters. • Good math thinkers know how to think about words and numbers to solve problems.	Paper clips Construction paper Scissors Straightedge Colored pencils Various hand-drawn polygons with given perimeters and one side whose length is unknown.

QUARTER 1 –
Big Idea:
Topic:

Standards:	GOAL	
NJ Student Learning Standards:	SWBAT	
	Essential Questions	Assessments
21st Century Life and Careers: **CAEP.9.2.4.A.1** **CAEP.9.2.4.A.4**		
Technology Standards: **TECH.8.1.5.A.CS1** **TECH.8.1.5.A.1**		
ELA Companion Standards in History, Social Studies, Science & Technical Subjects: **LA.RL.3.1** **LA.RL.3.4** **LA.RI.3.**	Enduring Understanding	Resources
Anchor Standards:		
MODIFICATIONS: Advanced Learner:		

Students with Disabilities: English Language Learners:		
QUARTER 1 – **Big Idea:** **Topic:**		