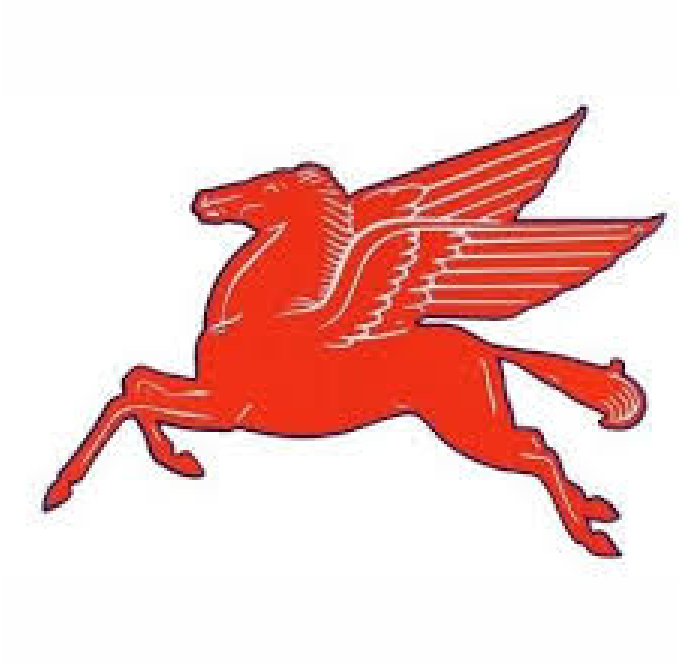
Curriculum Management System

PAULSBORO PUBLIC SCHOOLS



Mathematics – Grade 1

UPDATED 2020-21

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

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.

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1st GRADE PACING CHART (2020-2021)

TOPIC	# OF DAYS	DATES	COMMENTS
1- Fluently Add & Subtract Within 10	7	September	Focus on addition and subtraction facts up to 10
2- Addition Facts to 20	10	October	Focus on Fact Fluency up to 20 and Math Strategies
3-Subtraction Facts to 20	10	October	Focus on Fact Fluency up to 20 and Math Strategies
4 – Solve Addition & Subtraction Problems to 10	7	November	Focus on Solving Addition and Subtraction Problems up to 10
5- Extend the Counting Sequence	7	December	Focus on Counting and Sequence of Numbers
6- Understand Place Value	10	January	Focus on Place Value
7- Compare Two-Digit Numbers	8	January	Focus on Two Digit Numbers
8- Use Models & Strategies to Add Tens and Ones and Subtract	7	February	Focus on Place Value & Strategies
9- Addition & Subtraction Equations	7	March	Focus on Equations
10- Data, Measurement, Time	12	April	Focus on Representing and Analyzing Data, Lengths, and Time to the ½ hour
11- Shapes	6	May	Focus on Attributes
12- Step Up to Grade 2	10	June	Focus on Skills and Standards for 2nd Grade

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 proficiency.

QUARTER 1 – Operations and Algebraic Thinking

Big Idea: Fluently add and subtract within 20

Topics 1- 4: Addition and Subtraction

Standards:

NJ Student Learning Standards:

1.0.A.A.1 Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problems.
1.0.A.B.3 Apply properties of operations as strategies to add and subtract.
1.0.A.B.4 Understand subtractions as an unknow- addend problem. For example, subtract 10-8 by finding the number that makes 10 when added to 8.
1.0A.C.5 Relate counting to addition and subtractions (e.g. by counting on 2 to add 2).
1.0A.C.6 Add and subtract within 20, demonstrating fluency for addition and subtraction within 10 Use strategies such as counting on: making ten (e.g., 8+6=8+2+4=10+4=14); decomposing a number leading to a ten (e.g., 13-4=13-3-1=10-1=9);using relations between addition and subtraction (e.g. knowing that 8+4=12, one knows 12-8=4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6+6+1=12+1=13).
1.0A.D.8 determine the unknown whole number in addition or subtraction question relating to three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations 8+? =11, 5=? -3, 6+6=?

Mathematical Practices

MP.1 Make sense of problems and persevere in solving them.
MP.2 Reason abstractly and quantitatively. MP.3 Construct viable arguments & critique the reasoning of others.
MP.7 Look for and make use of structure.
MP.8 Look for and express regularity in repeated reasoning.

21st Century Life and Careers:

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.
CRP6. Demonstrate creativity and innovation.
CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
CRP11. Use technology to enhance productivity.
CRP12. Work productively in teams while using cultural global competence.

GOAL

SWBAT

- represent and solve problems involving addition and subtraction
- add and subtract within 20
- understand and apply the properties of operations
- understand the relationship between addition and subtraction
- solve word problems by drawings and/or equations

Essential Questions

1.How are addition and subtraction alike and how are they different?

2. What strategies can we use to solve addition and subtraction problems?

3. How can addition strategies help with subtracting?

Assessments

Placement Test
Digital Daily Topic Quick Checks topics (7-9)
Exit Tickets
Topic Assessments (7-9)
Performance Assessments Topics (7-9)
Benchmark/ Placement Tests Topics (7-9)
Homework
Teacher Created Assessments
Project-based Assessments
Seesaw Portfolio

Enduring Understanding

1. Addition and subtraction have inverse relationships.

2. Drawings and equations can help us solve Math problems.

3. Good Math thinkers look for patterns and use strategies in Math to help solve problems.

Resources

Text: Savvas Realize Math 2.0 & Realize Digital Reader (Pages 395-484)
Exam View
Bar Model
Fluency Practice Pages
Counters
Teaching Tools 6,16, 23, 27
Beans

Technology Standards: 8.1.P.A.1 Use an input device to select an item and navigate the screen 8.1.P.A.3 Use and/or develop a simulation that provides an environment to solve a real-world problem theory. 8.1.12.A.1 Create a personal digital portfolio which reflects personal and academic interests, achievements, and career aspirations by using a variety of digital tools and resources. 8.1.P.C.1 Collaborate with peers by participating in interactive digital games or activities. 8.1.8.D.1 Understand, and model appropriate online behaviors related to cyber safety, cyber bullying, cyber security, and cyber ethics including appropriate use of social media. **MODIFICATIONS:** **Gifted and Talented Learners:** Enhanced set of introductory activities Higher level questioning, propose interest-based Centers and choice Interest- based extension activities Use sentence stems to discuss ways to count Utilize Pre-AP Resources such as the pacing, assignment, and best practices guide **Special Education Learners:** Allow extra time to complete assignments or tests Visual Learning Bridge through Savvas Online Resources Visual Animations Work in a small group and have students use touch to assist with counting Allow answers to be given orally, dictated or typed Use large print books, Braille, or books on CD (digital text) Follow all IEP modifications/504 plan Students Hands on activities 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:** Animated Glossary Online Vocabulary Game English Language Learners Tool Kit Guided Practice		Rubber Bands 30 Pencils Number Cards Connecting Cubes Number Lines Center Games Problem- Solving Reading Mat Vocabulary Cards Visual Animation Plus Online Math Tools Practice Buddy Student E-Text Online Games Seesaw

QUARTER 2- Numbers and Operations in Base Ten
Big Idea: Understand Place Value
Topics 5-7: Numbers Up to 120

Standards:

NJ Student Learning Standards:

1.NBT.A.1 Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.
1.NBT.B.2 Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases:
a. 10 can be thought of as a bundle of ten ones-called a "ten"
b. The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.
c. The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).
1.NBT.B.3 Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <.
1.NBT.C.5 Given a two-digit number, mentally find 10 more or 10 less that the number, without having to count; explain the reasoning used.

21st Century Life and Careers:

CRP2. Apply appropriate academic and technical skills.
CRP3. Attend to personal health and financial well-being.
CRP4. Communicate clearly and effectively and with reason.
CRP6. Demonstrate creativity and innovation.
CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
CRP11. Use technology to enhance productivity.
CRP12. Work productively in teams while using cultural global competence.

Mathematical Practices

MP.1 Make sense of problems and persevere in solving them.
MP.2 Reason abstractly and quantitatively. MP.3 Construct viable arguments & critique the reasoning of others.
MP.6 Attend to precision.
MP.7 Look for and make use of structure.
MP.8 Look for and express regularity in repeated reasoning.

Technology Standards:

8.1.P.A.1 Use an input device to select an item and navigate the screen
8.1.P.A.3 Use and/or develop a simulation that provides an environment to solve a real-world problem theory.

GOAL

SWBAT

- count by 1, 10 to 120
- count by using the number line
- extend the counting sequence
- compare 2-digit numbers
- understand place value

Essential Questions	Assessments
1. Where do we find patterns in Math? 2.How can you count and add using tens and ones? 3. What strategies can be used to compare numbers greater than 100?	Digital Daily Topic Quick Checks Exit Tickets Topic Assessments Topic 7, 8, 9 Performance Assessments Topics 7, 8, 9 Homework Teacher Created Assessments Project-based Assessments Seesaw Portfolio

8.1.12.A.1 Create a personal digital portfolio which reflects personal and academic interests, achievements, and career aspirations by using a variety of digital tools and resources. 8.1.P.C.1 Collaborate with peers by participating in interactive digital games or activities. 8.1.8.D.1 Understand, and model appropriate online behaviors related to cyber safety, cyber bullying, cyber security, and cyber ethics including appropriate use of social media. **MODIFICATIONS:** **Gifted and Talented Learners:** Enhanced set of introductory activities Higher level questioning, propose interest-based Centers and choice Interest- based extension activities Use sentence stems to discuss ways to count Utilize Pre-AP Resources such as the pacing, assignment, and best practices guide **Special Education Learners:** Allow extra time to complete assignments or tests Visual Learning Bridge through Savvas Online Resources Visual Animations Work in a small group and have students use touch to assist with counting Allow answers to be given orally, dictated or typed Use large print books, Braille, or books on CD (digital text) Follow all IEP modifications/504 plan Students Hands on activities 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:** Animated Glossary Online Vocabulary Game English Language Learners Tool Kit Guided Practice	**Enduring Understanding** 1. Patterns can be found on a number chart and a number line. 2. Two- digit numbers represent amounts of tens and ones. Two-digit numbers can be decomposed as groups of tens and a group of ones. 3. Numbers can be compared using place-value concepts.	**Resources** **Text:** Savvas Realize Math 2.0 & Realize Digital Reader (Pages 395-436) 120 Chart Index Cards Number Cards Counters Teaching Tool 27, 6, 7 Number Cards Connecting Cubes Number Lines Center Games Problem- Solving Reading Mat Vocabulary Cards Index Cards Visual Animation Plus Online Math Tools Practice Buddy Student E-Text Online Games Seesaw

QUARTER 3 – Numbers and Operations in Base Ten

Big Idea: Understanding how to use place value to add and subtract

Topics 8-10 Addition & Subtraction

Standards:

NJ Student Learning Standards:

1.NBT.C.4 Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models (e.g., base ten blocks) or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.
1.NBT.C.5 Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.
1.NBT.C.6 Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties or operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

Mathematical Practices

MP.1 Make sense of problems and persevere in solving them.
MP.2 Reason abstractly and quantitatively. MP.3 Construct viable arguments & critique the reasoning of others.
MP.4 Model with mathematics.
MP.5 Use appropriate tools strategically.
MP.6 Attend to precision.
MP.8 Look for and express regularity in repeated reasoning.

21st Century Life and Careers:

CRP2. Apply appropriate academic and technical skills.
CRP3. Attend to personal health and financial well-being.
CRP4. Communicate clearly and effectively and with reason.
CRP6. Demonstrate creativity and innovation.
CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
CRP11. Use technology to enhance productivity.

Technology Standards:

8.1.P.A.1 Use an input device to select an item and navigate the screen
8.1.P.A.3 Use and/or develop a simulation that provides an environment to solve a real-world problem theory.
8.1.12.A.1 Create a personal digital portfolio which reflects personal and academic interests, achievements, and career aspirations by using a variety of digital tools and resources.

GOAL

SWBAT

- understand place value and properties of operations to add and subtract
- add and subtract within 20 using mental strategies

Essential Questions	Assessments
1. How does the place value system work? 2. What are ways to compare numbers up to 120? 3. How can we use tens and ones to add? 4. How can I use strategies to add and subtract tens?	Digital Daily Topic Quick Checks Exit Tickets Commutive/Benchmark Topics 1-8 Topics 9-11 Topic Assessments 9-11 Performance Assessments Topics 9 -11 Homework Teacher Created Assessments Project-based Assessments Seesaw Portfolio Fluency Assessment

8.1.P.C.1 Collaborate with peers by participating in interactive digital games or activities. 8.1.8.D.1 Understand, and model appropriate online behaviors related to cyber safety, cyber bullying, cyber security, and cyber ethics including appropriate use of social media. **MODIFICATIONS:** **Gifted and Talented Learners:** Enhanced set of introductory activities Higher level questioning, propose interest-based Centers and choice Interest- based extension activities Use sentence stems to discuss ways to count Utilize Pre-AP Resources such as the pacing, assignment, and best practices guide **Special Education Learners:** Allow extra time to complete assignments or tests Visual Learning Bridge through Savvas Online Resources Visual Animations Work in a small group and have students use touch to assist with counting Allow answers to be given orally, dictated or typed Use large print books, Braille, or books on CD (digital text) Follow all IEP modifications/504 plan Students Hands on activities 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:** Animated Glossary Online Vocabulary Game English Language Learners Tool Kit Guided Practice	**Enduring Understanding** 1. Place Value relationships can be represented on a hundred chart 2. 1 more, 1 less, 10 more 10 less express a relationship between 2 numbers 3. Adding groups of 10 is similar to adding numbers less than 10. 4. Subtracting multiples of 10 is like county back by 10's. You can show how to subtract a multiple of 10 from another multiple of 10 on a hundred chart. 5. You can use different strategies to solve addition and subtraction problems.	**Resources** **Text:** Savvas Realize Math 2.0 & Realize Digital Reader Student Pages 449 - 652 Counters Teaching Tool 21, 27 Number Cards Place Value Blocks Connecting Cubes Number Lines Center Games Problem- Solving Reading Mat Vocabulary Cards Visual Animation Plus Online Math Tools Practice Buddy Student E-Text Online Games Seesaw

QUARTER 4– Measurement, Data, & Geometry
Big Idea: Interpret and Analyze Data, Measurement, and Shapes
Topics 11 - 13: Data, Measurement, Time, and Shapes

Standards:

NJ Student Learning Standards:

1.M.D.C.4 Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.
1.MD.A1 Order three objects by length; compare the lengths of two objects indirectly by using a third object.
1.MD.A.2 Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. Limit to contexts where the object being measured is spanned by a whole number or length units with no gaps or overlaps.
1.MD.B3 Tell and write time in hours and half-hours using analog and digital clocks.
1.G.A.1 Distinguish between defining attributes (e.g., triangles are closed and three-sided) verses non-defining attributes (e.g., color orientation, overall size); build and draw shapes to possess defining attributes.
1.G.A.3 Partition circles and rectangles into two and four equal shares, describe the shares using the words halves, fourths, and quarters, and use phrases half of, fourth of, and quarter of. Describe the whole as two of, or four of, fourth of, and quarter of. Understand for these examples that decomposing into more equal shares creates smaller shares.

Mathematical Practices

MP.1 Make sense of problems and persevere in solving them.
MP.2 Reason abstractly and quantitatively. MP.3 Construct viable arguments & critique the reasoning of others.
MP.4 Model with mathematics.
MP.5 Use appropriate tools strategically.
MP.6 Attend to precision.
MP.7 Look for and make use of structure.
MP.8 Look for and express regularity in repeated reasoning.

21st Century Life and Careers:

CRP1. Act as a responsible and contributing citizen and employee
CRP4. Communicate clearly and effectively and with reason.
CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
CRP11. Use technology to enhance productivity.

Technology Standards:

GOAL

SWBAT

- represent and interpret data
- measure lengths
- show and write time
- analyze shapes and their attributes
- Divide shapes into equal pieces

Essential Questions	Assessments
1. Why do we collect and analyze data? 2. How can information be gathered, organized, and represented? 3. How does data help us to solve problems or make decisions in the world? 4. How do we measure how long an object is? 5. What are different ways to tell time? 6. What are names used to define equal shapes? 7. How can you define shapes and create new shapes?	Digital Daily Topic Quick Checks Exit Tickets Topic Assessments 12, 13, 14 Performance Assessments Topics 12, 13, 14 Homework Teacher Created Assessments Project-based Assessments Seesaw Portfolio Cumulative Online Benchmark topics 1 -12
Enduring Understanding	**Resources**
1. We use data to help us solve problems.	**Text:** Savvas Realize Math 2.0 & Realize Digital Reader (Pages 353 – 382) and (Pages 667- 840)

8.1.P.A.1 Use an input device to select an item and navigate the screen 8.1.P.A.3 Use and/or develop a simulation that provides an environment to solve a real-world problem theory. 8.1.12.A.1 Create a personal digital portfolio which reflects personal and academic interests, achievements, and career aspirations by using a variety of digital tools and resources. 8.1.P.C.1 Collaborate with peers by participating in interactive digital games or activities. 8.1.8.D.1 Understand, and model appropriate online behaviors related to cyber safety, cyber bullying, cyber security, and cyber ethics including appropriate use of social media. **MODIFICATIONS:** **Gifted and Talented Learners:** Enhanced set of introductory activities Higher level questioning, propose interest-based Centers and choice Interest- based extension activities Use sentence stems to discuss ways to count Utilize Pre-AP Resources such as the pacing, assignment, and best practices guide **Special Education Learners:** Allow extra time to complete assignments or tests Visual Learning Bridge through Savvas Online Resources Visual Animations Work in a small group and have students use touch to assist with counting Allow answers to be given orally, dictated or typed Use large print books, Braille, or books on CD (digital text) Follow all IEP modifications/504 plan Students Hands on activities 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:** Animated Glossary Online Vocabulary Game English Language Learners Tool Kit Guided	2. Tally Charts and Picture Graphs help us to organize data. 3. Some problems can be solved by making, reading, and analyzing a tally chart or picture graph. 4. Measurement is a process of comparing a unit to the object being measured. The length of any object can used as a measurement unit of length. Objects can be measured to compare and order their lengths and heights. 5. Time can be shown on an analog clock or a digital clock and can be given by the hour or the half hour. 6. Divide shapes into 2 and 4 equal shares and use words to describe those shapes. 7. Two dimensional shapes have attributes that define them and make them different from one another. These properties can be used to create shapes.	Clocks Counters Teaching Tool 33,34 Various Shapes Construction Paper Objects from around the classroom Paper Clips Number Cards Connecting Cubes Number Lines Center Games Problem- Solving Reading Mat Vocabulary Cards Visual Animation Plus Online Math Tools Practice Buddy Student E-Text Colored Pencils Straws Pipe Cleaners Online Games Seesaw