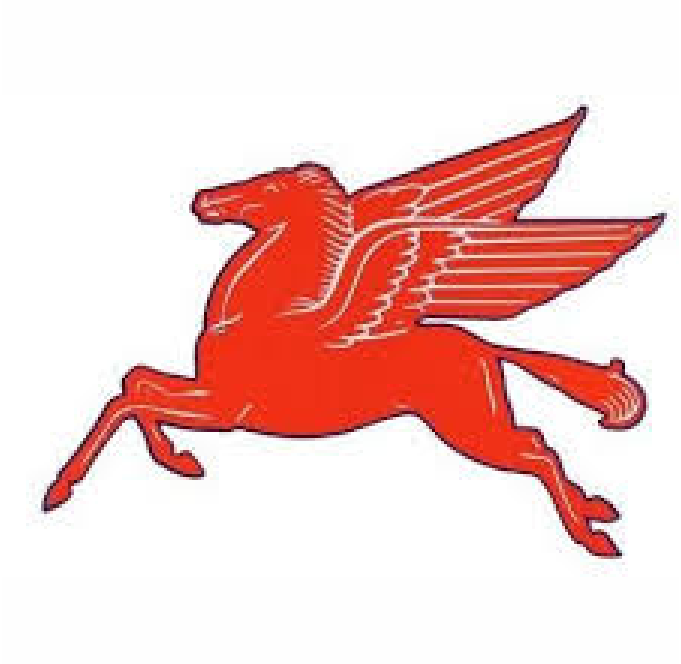
Curriculum Management System

PAULSBORO PUBLIC SCHOOLS



Mathematics – Grade *5*

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

Table of Contents

Paulsboro Public Schools

Superintendent, Dr. Roy Dawson, III

Board of Education

Mr. Marvin E. Hamilton, President
Mrs. Danielle Scott, Vice President
Mrs. Theresa Cooper
Mr. Robert Davis
Mrs. Crystal L. Henderson
Mrs. Rosanne Lombardo*
Ms. Elizabeth Reilly
Mr. Markee Robinson
Ms. Tyesha Scott
Mrs. Irma R. Stevenson

* Greenwich Township Board of Education Representative

District Administration

Mrs. Christine Lindenmuth, Director of Curriculum, Instruction & Assessment
Mrs. Anisah Coppin, Business Administrator/Board Secretary
Mr. Robert Harris, Director of Special Services
Mrs. Tina Morris, Principal, grades Pre-K to 2
Mr. Matthew J. Browne, Principal, grades 3-6
Mr. Paul Morina, Principal, grades 7-12

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.

5th GRADE PACING CHART (2020-2021)

TOPIC	**# OF DAYS**	**DATES**	**COMMENTS**
1 – Understand Place Value	*11*	*9/8 – 9/22*	*Focus On Understanding Decimals*
2- Add and Subtract Decimals to Hundredths	10	9/23-10/6	
3- Fluently Multiply Multi-digit Whole Numbers	9	10/7-10/20	
4- Use Models and Strategies to Multiply Decimals	12	10/21-11/09	
5- Use Models and Strategies to Divide Whole Numbers	11	11/10-12/01	
6- Use Models and Strategies to Divide Decimals	11	12/02-12/16	
7- Use Equivalent Fractions to Add and Subtract Fractions	17	12/17-1/20	
8- Apply Understanding of Multiplication to Multiply Fractions	11	1/21-2/08	
9- Apply Understanding of Division to Divide Fractions	10	2/09-2/23	
10- Understand Volume Concepts	8	2/24-3/05	
11- Convert Measurements	12	3/08-3/23	
12- Represent and Interpret Data	6	3/24-3/31	
13- Algebra: Write and Interpret Numerical Expressions	7	4/06-4/14	

14- Graph Points on the Coordinate Plane	6	4/15-4-22	
15- Algebra: Analyze Patterns and Relationships	6	4/23-4/30	
16- Geometric Measurement: Classify Two Dimensional Figures	6	5/03-5-11	

*Depending on state testing, the tentative dates for topics 10-16 may change

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.

<table>
<tr><th colspan="3">QUARTER 1 – Unit 1
Big Idea: Numbers and Operations in Base Ten
Topic: Understand Place Value</th></tr>
<tr><td rowspan="5">Standards:
NJ Student Learning Standards:
5.NBT.A.1 Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left. 5.NBT.A.2 Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10. 5.NBT.A.3 Read, write, and compare decimals to thousandths. Read and write decimals to thousandths using base-ten numerals, number names, and expanded form, e.g., 347.392 = 3 × 100 + 4 × 10 + 7 × 1 + 3 × (1/10) + 9 × (1/100) + 2 ×</td><td colspan="2">GOAL</td></tr>
<tr><td colspan="2">SWBAT
● Students will be able to write, compare, and order whole numbers and decimals.</td></tr>
<tr><td>Essential Questions</td><td>Assessments</td></tr>
<tr><td>How are whole numbers and decimals written, compared, and ordered?</td><td>• Placement Test, print or online
• Topic One Assessment, print or online</td></tr>
<tr><td>Enduring Understanding</td><td>Resources</td></tr>
<tr><td>In this unit, students will focus on deepening their understanding of place value in both whole numbers and decimals. (Topic 1)

The exponent is the number that tells how many times a base number is used as a factor.</td><td>EnVision 2.0 Common Core Grade 5
https://www.savvasrealize.com/community/home
Manipulative Set</td></tr>
</table>

(1/1000). b. Compare two decimals to thousandths based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons. **5.NBT.A.4** Use place value understanding to round decimals to any place. **21st Century Life and Careers:** **CRP2.** Apply appropriate academic and technical skills **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. **Technology Standards:** **8.1.5.A.1** Select and use the appropriate digital tools and resources to accomplish a variety of tasks including solving problems **8.1.5.A.4** Graph data using a spreadsheet, analyze and produce a report that explains the analysis of the data.		

8.2.5.C.4 4 Collaborate and brainstorm with peers to solve a problem evaluating all solutions to provide the best results with supporting sketches or models. **8.2.5.D.3** Follow step by step directions to assemble a product or solve a problem **Anchor Standards:** **LA.L.5.6** Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships (e.g., however, although, nevertheless, similarly, moreover, in addition) **LA.SL.5.1** Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly **MODIFICATIONS:** Advanced Learner: ❑ Provide center games for independent learners ❑ Relate Math skills to a provided science activity for each topic of instruction Students with Disabilities: ❑ Provide additional manipulatives to support instruction		

❑ Allow for alternative strategies to solve algorithms or tasks ❑ Provide the steps needed to complete the task ❑ Model frequently ❑Use visuals to demonstrate/model the processes English Language Learners: ❑ Develop basic sight vocabulary ❑ Use visual support to confirm understanding ❑ Learn new academic expressions ❑ Explain content area information ❑ Use and reuse academic language in meaningful ways when speaking		

QUARTER 1 – Unit 2

Big Idea: Numbers and Operations in Base Ten

Topic: Add and Subtract Decimals to Hundreths, Fluently Multiply and Divide Multi-Digit Whole Numbers and Decimals

Standards:	**GOAL**
NJ Student Learning Standards: **5.NBT.A.2** Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10. **5.NBT.A.4** Use place value	SWBAT ● Students will be able to estimate sums and differences of decimals and identify standard procedures for adding and subtracting whole numbers and decimals. Students will also be able to mentally find sums and differences of decimals. ● The student will be able to identify the standard procedures for estimating and finding products of multi-digit numbers. ● The student will be able to identify the standard procedures for estimating and finding products involving decimals. ● The student will be able to identify standard procedure for division and why does it work.

<table>
<tr>
<td rowspan="5">understanding to round decimals to any place.
5.NBT.B.5 Fluently multiply multi-digit whole numbers using the standard algorithm.
5.NBT.B.6 Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
5.NBT.B.7 Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

21st Century Life and Careers:
CRP2. Apply appropriate academic and technical skills
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</td>
<td colspan="2">● Students will be able to identify the standard procedures for estimating and finding quotients involving decimals.</td>
</tr>
<tr>
<td>Essential Questions</td>
<td>Assessments</td>
</tr>
<tr>
<td>How can sums and differences of decimals be estimated?

How can finding sums and differences mentally be helpful?

Why might you estimate when buying items?

When in everyday life do you use decimals?

How can multiplication help solve a division problem?</td>
<td>• Topic Two Assessment, print or online
• Topic Three Assessment, print online
• Topic Four Assessment, print or online
• Topic 1-4 Cumulative/Benchmark Assessment
• Topic Five Assessment. print or online
• Topic Six Assessment, print or online</td>
</tr>
<tr>
<td>Enduring Understanding</td>
<td>Resources</td>
</tr>
<tr>
<td>In this unit, students will focus on deep understanding of whole-number and decimal operations.</td>
<td>EnVision 2.0 Common Core Grade 5
https://www.savvasrealize.com/community/home
Manipulative Set</td>
</tr>
</table>

CRP11. Use technology to enhance productivity. **CRP12.** Work productively in teams while using cultural global competence. **Technology Standards:** **8.1.5.A.1** Select and use the appropriate digital tools and resources to accomplish a variety of tasks including solving problems **8.1.5.A.4** Graph data using a spreadsheet, analyze and produce a report that explains the analysis of the data. **8.2.5.C.4** 4 Collaborate and brainstorm with peers to solve a problem evaluating all solutions to provide the best results with supporting sketches or models. **8.2.5.D.3** Follow step by step directions to assemble a product or solve a problem **Anchor Standards:** **LA.L.5.6** Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships (e.g., however, although, nevertheless, similarly, moreover, in addition) **LA.SL.5.1** Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts,	Students use the standard multiplication algorithm to fluently multiply multi-digit numbers. Students will use models and strategies, including standard algorithms, to divide with 2-digit divisors and to perform all four operations on decimals through hundredths. (Topics 2-6)	

building on others' ideas and expressing their own clearly **MODIFICATIONS:** Advanced Learner: ❑ Provide center games for independent learners ❑ Relate Math skills to a provided science activity for each topic of instruction Students with Disabilities: ❑Provide additional manipulatives to support instruction ❑Allow for alternative strategies to solve algorithms or tasks ❑Provide the steps needed to complete the task ❑ Model frequently ❑Use visuals to demonstrate/model the processes English Language Learners: ❑ Develop basic sight vocabulary ❑ Use visual support to confirm understanding ❑ Learn new academic expressions ❑ Explain content area information ❑ Use and reuse academic language in meaningful ways when speaking		

QUARTER 2 –Unit 3

Big Idea: Numbers and Operations- Fractions

Topic: Use Equivalent Fractions to Add and Subtract Fractions, Apply Understanding of Multiplication and Division to Multiply and Divide Fractions

Standards:

NJ Student Learning Standards:

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

5.NF.A.2 Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, e.g., by using visual fraction models or equations to represent the problem. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers. For example, recognize an incorrect result 2/5 + 1/2 = 3/7, by observing that 3/7 < 1/2. **5.NF.B.3** Interpret a fraction as division of the numerator by the denominator (a/b = a ÷ b). Solve word problems involving division of whole numbers leading to answers in the form

GOAL

SWBAT

- Students will understand how sums and differences of fractions and mixed numbers can be estimated and identify standard procedures for adding and subtracting fractions and mixed numbers.
- Students will multiply whole numbers and fractions and show multiplication with whole numbers and fractions using models and symbols.
- Students will understand how fractions are related to division. Students will divide using whole numbers and unit fractions.

Essential Questions	Assessments
How can sums and differences of fractions and mixed numbers be estimated? What strategies can be used to solve problems involving fractions? Is subtracting fractions with unlike denominators similar to adding fractions with unlike denominators? How can using models and symbols to multiply whole numbers and fractions help when solving problems?	• Topic Seven Assessment, print or online • Topic Eight Assessment, print or online • Topic 1-8 Cumulative/Benchmark Assessment • Topic Nine Assessment, print or online

of fractions or mixed numbers, e.g., by using visual fraction models or equations to represent the problem. For example, interpret 3/4 as the result of dividing 3 by 4, noting that 3/4 multiplied by 4 equals 3, and that when 3 wholes are shared equally among 4 people each person has a share of size 3/4. If 9 people want to share a 50 -pound sack of rice equally by weight, how many pounds of rice should each person get? Between what two whole numbers does your answer lie? **5.NF.B.4** Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction. a. Interpret the product (a/b) × q as a parts of a partition of q into b equal parts; equivalently, as the result of a sequence of operations a × q ÷ b. For example, use a visual fraction model to show (2/3) × 4 = 8/3, and create a story context for this equation. Do the same with (2/3) × (4/5) = 8/15. (In general, (a/b) × (c/d) = ac/bd.) b. Find the area of a rectangle with fractional side lengths by tiling it with unit squares of the appropriate unit fraction side lengths, and show that the area is the same as would be found by multiplying the side lengths. Multiply fractional side lengths to find areas of rectangles, and represent fraction products as rectangular areas. **5.NF.B.5** Interpret multiplication as scaling (resizing), by: a. Comparing the	How is multiplying or dividing whole numbers similar to multiplying or dividing fractions? How are multiplication, division, whole numbers, and fractions related? What is the relationship between division of whole numbers and multiplication of fraction reciprocals? How can multiplication of a whole number by a fraction be modeled? How can a whole number be multiplied by a fraction? How can multiplying fractions be modeled using area, a number line, or measurement models? How can dividing fractions be modeled using area, sets, or a number line? How is multiplication of fractions similar to repeated addition of fraction? What is the relationship between multiplication by a fraction and division?	

size of a product to the size of one factor on the basis of the size of the other factor, without performing the indicated multiplication. b. Explaining why multiplying a given number by a fraction greater than 1 results in a product greater than the given number (recognizing multiplication by whole numbers greater than 1 as a familiar case); explaining why multiplying a given number by a fraction less than 1 results in a product smaller than the given number; and relating the principle of fraction equivalence a/b = (n×a)/(n×b) to the effect of multiplying a/b by 1. **5.NF.B.6** Solve real world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem. **5.NF.B.7** Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions. 1 a. Interpret division of a unit fraction by a non-zero whole number, and compute such quotients. For example, create a story context for (1/3) ÷ 4, and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that (1/3) ÷ 4 = 1/12 because (1/12) × 4 = 1/3. b. Interpret division of a whole number by a unit fraction, and compute such	How can multiplication and division of fractions be used to represent and understand real-world, and mathematical problems?	
	Enduring Understanding	**Resources**
	In this unit, students will focus on deep understanding of using equivalent fractions to add and subtract and mixed numbers. Students will also extend their deep understanding of multiplication and division from whole numbers to fractions. (Topics 7-9)	EnVision 2.0 Common Core Grade 5 https://www.savvasrealize.com/community/home Manipulative Set

quotients. For example, create a story context for 4 ÷ (1/5), and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that 4 ÷ (1/5) = 20 because 20 × (1/5) = 4. c. Solve real world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions, e.g., by using visual fraction models and equations to represent the problem. For example, how much chocolate will each person get if 3 people share 1/2 lb of chocolate equally? How many 1/3-cup servings are in 2 cups of raisins? **21st Century Life and Careers:** **CRP2.** Apply appropriate academic and technical skills **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. **Technology Standards:**		

8.1.5.A.1 Select and use the appropriate digital tools and resources to accomplish a variety of tasks including solving problems **8.1.5.A.4** Graph data using a spreadsheet, analyze and produce a report that explains the analysis of the data. **8.2.5.C.4** 4 Collaborate and brainstorm with peers to solve a problem evaluating all solutions to provide the best results with supporting sketches or models. **8.2.5.D.3** Follow step by step directions to assemble a product or solve a problem **Anchor Standards:** **LA.L.5.6** Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships (e.g., however, although, nevertheless, similarly, moreover, in addition) **LA.SL.5.1** Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly **MODIFICATIONS:** Advanced Learner:		

❑ Provide center games for independent learners ❑ Relate Math skills to a provided science activity for each topic of instruction Students with Disabilities: ❑ Provide additional manipulatives to support instruction ❑ Allow for alternative strategies to solve algorithms or tasks ❑ Provide the steps needed to complete the task ❑ Model frequently ❑ Use visuals to demonstrate/model the processes English Language Learners: ❑ Develop basic sight vocabulary ❑ Use visual support to confirm understanding ❑ Learn new academic expressions ❑ Explain content area information ❑ Use and reuse academic language in meaningful ways when speaking		

QUARTER 2 – Unit 4
Big Idea: Measurement and Data
Topic: Undderstand Volume Concepts

Standards: **NJ Student Learning Standards:**	**GOAL** **SWBAT**

<table>
<tr>
<td rowspan="5">5.MD.C.3 Recognize volume as an attribute of solid figures and understand concepts of volume measurement. a. A cube with side length 1 unit, called a “unit cube,” is said to have “one cubic unit” of volume, and can be used to measure volume. b. A solid figure which can be packed without gaps or overlaps using n unit cubes is said to have a volume of n cubic units.
5.MD.C.4 Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and non-standard units.
5.MD.C.5 Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume. a. Find the volume of a right rectangular prism with whole-number side lengths by packing it with unit cubes, and show that the volume is the same as would be found by multiplying the edge lengths, equivalently by multiplying the height by the area of the base. Represent threefold whole-number products as volumes, e.g., to represent the associative property of multiplication. b. Apply the formulas V = l × w × h and V = B × h for rectangular prisms to find volumes of right rectangular prisms with whole number edge lengths in the context of solving real world and mathematical problems. c. Recognize volume as additive. Find volumes of solid figures composed of two</td>
<td colspan="2">Students will understand the meaning of volume of a solid and find the volume of a rectangular prism.</td>
</tr>
<tr>
<td>Essential Questions</td>
<td>Assessments</td>
</tr>
<tr>
<td>What is the meaning of volume of a solid?

How can the area of a shape help find the volume of a shape?</td>
<td>• Topic Ten Assessment, print or online</td>
</tr>
<tr>
<td>Enduring Understanding</td>
<td>Resources</td>
</tr>
<tr>
<td>In this unit, students will focus on deepening their understanding of the measurable attributes of volume and using number and operations to describe and compute the volume of rectangular prisms and composite shapes. (Topic 10)</td>
<td>EnVision 2.0 Common Core Grade 5
https://www.savvasrealize.com/community/home
Manipulative Set</td>
</tr>
</table>

non-overlapping right rectangular prisms by adding the volumes of the non-overlapping parts, applying this technique to solve real world problems. **21st Century Life and Careers:** **CRP2**. Apply appropriate academic and technical skills **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. **Technology Standards:** **8.1.5.A.1** Select and use the appropriate digital tools and resources to accomplish a variety of tasks including solving problems **8.1.5.A.4** Graph data using a spreadsheet, analyze and produce a report that explains the analysis of the data. **8.2.5.C.4** 4 Collaborate and brainstorm with peers to solve a problem evaluating all solutions to provide the best results with supporting sketches or models.		

8.2.5.D.3 Follow step by step directions to assemble a product or solve a problem **Anchor Standards:** **LA.L.5.6** Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships (e.g., however, although, nevertheless, similarly, moreover, in addition) **LA.SL.5.1** Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly **MODIFICATIONS:** Advanced Learner: ❑ Provide center games for independent learners ❑ Relate Math skills to a provided science activity for each topic of instruction Students with Disabilities: ❑ Provide additional manipulatives to support instruction ❑ Allow for alternative strategies to solve algorithms or tasks		

❑ Provide the steps needed to complete the task ❑ Model frequently ❑ Use visuals to demonstrate/model the processes English Language Learners: ❑ Develop basic sight vocabulary ❑ Use visual support to confirm understanding ❑ Learn new academic expressions ❑ Explain content area information ❑ Use and reuse academic language in meaningful ways when speaking		

QUARTER 3– Unit 5

Big Idea: Measurement and Data

Topic: Convert Measurements and Represent and Interpret Data

Standards:

NJ Student Learning Standards:

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

5.MD.B.2 Make a line plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 1/8). Use operations on fractions for this grade to solve problems

GOAL

SWBAT

● Students will identify customary measurement units and learn how they are related. Students will identify metric measurement units and learn how they are related.

● Students will understand how line plots can be used to represent data and answer questions.

Essential Questions	Assessments
How are customary units related? How are metric units related?	• Topic Eleven Assessment, print or online • Topic Twelve Assessment, print or online • Topic 1-12 Cumulative/Benchmark Assessment

involving information presented in line plots. For example, given different measurements of liquid in identical beakers, find the amount of liquid each beaker would contain if the total amount in all the beakers were redistributed equally. **5.NBT.A.2** Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or How are customary units related? How are metric units related? How can line plots be used to represent data and answer questions? Howell Township Public Schools 5th Grade Curriculum Map Students will also focus on using line plots to represent and interpret data, with an emphasis on data involving fractions. Students will use the data to solve problems involving fraction operations. divided by a power of 10. Use whole-number exponents to denote powers of 10. **5.NBT.B.**5 Fluently multiply multi-digit whole numbers using the standard algorithm. **5.NBT.B.6** Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the	How can line plots be used to represent data and answer questions?	
	Enduring Understanding	**Resources**
	In this unit, students will focus on using multiplication and division to convert measurements of length, capacity, weight, and mass within either the customary or metric measurement system and on solving problems involving measurement conversions. (Topics 11 and 12)	EnVision 2.0 Common Core Grade 5 https://www.savvasrealize.com/community/home Manipulative Set

calculation by using equations, rectangular arrays, and/or area models. **5.NF.A.2** Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, e.g., by using visual fraction models or equations to represent the problem. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers. For example, recognize an incorrect result 2/5 + 1/2 = 3/7, by observing that 3/7 < 1/2. **5.NF.B.6** Solve real world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem. **21st Century Life and Careers:** **CRP2.** Apply appropriate academic and technical skills **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.		

Technology Standards: **8.1.5.A.1** Select and use the appropriate digital tools and resources to accomplish a variety of tasks including solving problems **8.1.5.A.4** Graph data using a spreadsheet, analyze and produce a report that explains the analysis of the data. **8.2.5.C.4** 4 Collaborate and brainstorm with peers to solve a problem evaluating all solutions to provide the best results with supporting sketches or models. **8.2.5.D.3** Follow step by step directions to assemble a product or solve a problem **Anchor Standards:** **LA.L.5.6** Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships (e.g., however, although, nevertheless, similarly, moreover, in addition) **LA.SL.5.1** Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly		

MODIFICATIONS: Advanced Learner: ❑ Provide center games for independent learners ❑ Relate Math skills to a provided science activity for each topic of instruction Students with Disabilities: ❑ Provide additional manipulatives to support instruction ❑ Allow for alternative strategies to solve algorithms or tasks ❑ Provide the steps needed to complete the task ❑ Model frequently ❑Use visuals to demonstrate/model the processes English Language Learners: ❑ Develop basic sight vocabulary ❑ Use visual support to confirm understanding ❑ Learn new academic expressions ❑ Explain content area information ❑ Use and reuse academic language in meaningful ways when speaking		
QUARTER 3 – Unit 6 **Big Idea: Operations and Algebraic Thinking** **Topic: Write and Interpret Numerical Expressions and Analyze Patterns and Relationships**		
Standards:	**GOAL**	

<table>
<tr>
<td rowspan="5">NJ Student Learning Standards:
5.OA.A.1Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.
5.OA.A.2 Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. For example, express the calculation “add 8 and 7, then multiply by 2” as 2 × (8 + 7). Recognize that 3 × (18932 + 921) is three times as large as 18932 + 921, without having to calculate the indicated sum or product.
5.OA.B.3 Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane. For example, given the rule “Add 3” and the starting number 0, and given the rule “Add 6” and the starting number 0, generate terms in the resulting sequences, and observe that the terms in one sequence are twice the corresponding terms in the other sequence. Explain informally why this is so.
5.G.A.2 Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.</td>
<td colspan="2">SWBAT
● Students will discover how the value of a numerical expression is found.
● Students will analyze and graph number patterns.
● Students will use number patterns and graphs to solve problems.</td>
</tr>
<tr>
<td>Essential Questions</td>
<td>Assessments</td>
</tr>
<tr>
<td>Is an expression the same as an equation?

How can number patterns be analyzed and graphed?

How can number patterns and graphs be used to solve problems?</td>
<td>• Topic Thirteen Assessment, print or online
• Topic Fifteen Assessment, print or online</td>
</tr>
<tr>
<td>Enduring Understanding</td>
<td>Resources</td>
</tr>
<tr>
<td>In this unit, students will focus on deep understanding of using the Order of Operations to evaluate, write, and interpret numerical expressions with grouping symbols. Students will focus identifying patterns and relationships. Students will generate number sequences using given rules. They</td>
<td>EnVision 2.0 Common Core Grade 5
https://www.savvasrealize.com/community/home
Manipulative Set</td>
</tr>
</table>

21st Century Life and Careers: **CRP2.** Apply appropriate academic and technical skills **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. **Technology Standards:** **8.1.5.A.1** Select and use the appropriate digital tools and resources to accomplish a variety of tasks including solving problems **8.1.5.A.4** Graph data using a spreadsheet, analyze and produce a report that explains the analysis of the data. **8.2.5.C.4** 4 Collaborate and brainstorm with peers to solve a problem evaluating all solutions to provide the best results with supporting sketches or models. **8.2.5.D.3** Follow step by step directions to assemble a product or solve a problem	generalize to describe the relationship between corresponding terms. (Topic 13 & Topic 15)	

Anchor Standards: **LA.L.5.6** Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships (e.g., however, although, nevertheless, similarly, moreover, in addition) **LA.SL.5.1** Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly **MODIFICATIONS:** Advanced Learner: ❑ Provide center games for independent learners ❑ Relate Math skills to a provided science activity for each topic of instruction Students with Disabilities: ❑ Provide additional manipulatives to support instruction ❑ Allow for alternative strategies to solve algorithms or tasks ❑ Provide the steps needed to complete the task ❑ Model frequently ❑Use visuals to demonstrate/model the processes		

English Language Learners: ❑ Develop basic sight vocabulary ❑ Use visual support to confirm understanding ❑ Learn new academic expressions ❑ Explain content area information ❑ Use and reuse academic language in meaningful ways when speaking		

QUARTER 4 – Unit 7
Big Idea: Geometry
Topic: Graph Points on a Coordinate Plane and Classify Two-Dimensional Figures

Standards:

NJ Student Learning Standards:

5.G.A.1 Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond (e.g., x-axis and x-coordinate, y-axis and y-coordinate).

GOAL

SWBAT:

● Students will discover how points are plotted and how the relationships of points are shown on a graph.

● Students will identify how triangles and quadrilaterals are described, classified, and named.

Essential Questions	Assessments
How are relationships shown on a graph? How can triangles and quadrilaterals be described, classified, and named?	• Topic Fourteen Assessment, print or online • Topic Sixteen Assessment, print or online • End of the Year Assessment • Topic 1-16 Cumulative/Benchmark Assessment

5.G.A.2 Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation. **5.G.B.3** Understand that attributes belonging to a category of two dimensional figures also belong to all subcategories of that category. For example, all rectangles have four right angles and squares are rectangles, so all squares have four right angles. **5.G.B.4** Classify two-dimensional figures in a hierarchy based on properties. **21st Century Life and Careers:** **CRP2.** Apply appropriate academic and technical skills **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. **Technology Standards:** **8.1.5.A.1** Select and use the appropriate digital tools and resources to accomplish		
	Enduring Understanding	**Resources**
	In this unit, students will develop an understanding of the Cartesian coordinate system. Students will graph ordered pairs in the first quadrant of the coordinate plane to solve real-world and mathematical problems Students will focus on understanding that the attributes belonging to a category of two-dimensional shapes also belong to all subcategories of that category. Triangles and quadrilaterals are classified and a hierarchy of quadrilaterals is developed based on their properties. (Topic 14 & Topic 16)	EnVision 2.0 Common Core Grade 5 https://www.savvasrealize.com/community/home Manipulative Set

a variety of tasks including solving problems **8.1.5.A.4** Graph data using a spreadsheet, analyze and produce a report that explains the analysis of the data. **8.2.5.C.4** 4 Collaborate and brainstorm with peers to solve a problem evaluating all solutions to provide the best results with supporting sketches or models. **8.2.5.D.3** Follow step by step directions to assemble a product or solve a problem **Anchor Standards:** **LA.L.5.6** Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships (e.g., however, although, nevertheless, similarly, **moreover, in addition)** **LA.SL.5.1** Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly **MODIFICATIONS:** Advanced Learner: ❑ Provide center games for independent learners		

❑ Relate Math skills to a provided science activity for each topic of instruction Students with Disabilities: ❑ Provide additional manipulatives to support instruction ❑ Allow for alternative strategies to solve algorithms or tasks ❑ Provide the steps needed to complete the task ❑ Model frequently ❑ Use visuals to demonstrate/model the processes English Language Learners: ❑ Develop basic sight vocabulary ❑ Use visual support to confirm understanding ❑ Learn new academic expressions ❑ Explain content area information ❑ Use and reuse academic language in meaningful ways when speaking		

QUARTE 4 – Unit 8
Big Idea:
Topic:

Standards: NJ Student Learning Standards:	GOAL SWBAT
	Essential Questions / Assessments

21st Century Life and Careers: **CRP2.** Apply appropriate academic and technical skills **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. **Technology Standards:** **8.1.5.A.1** Select and use the appropriate digital tools and resources to accomplish a variety of tasks including solving problems **8.1.5.A.4** Graph data using a spreadsheet, analyze and produce a report that explains the analysis of the data. **8.2.5.C.4** 4 Collaborate and brainstorm with peers to solve a problem evaluating all solutions to provide the best results with supporting sketches or models. **8.2.5.D.3** Follow step by step directions to assemble a product or solve a problem **Anchor Standards:** **LA.L.5.6** Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases, including those that signal contrast, addition, and other logical relationships		
	Enduring Understanding	**Resources**

(e.g., however, although, nevertheless, similarly, moreover, in addition) **LA.SL.5.1** Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others' ideas and expressing their own clearly **MODIFICATIONS:** Advanced Learner: Students with Disabilities: English Language Learners:		