

Mendham Township

Third Grade Math Curriculum

June 2023

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Philosophy

The Mendham Township Elementary School is committed to delivering comprehensive mathematics instruction based on the New Jersey Learning Standards and best practices found in research. Mathematics is a challenging subject that consists of numbers, shapes, and patterns, broken into the following components at the elementary level - counting and cardinality, operations and algebraic thinking, numbers and operations (in base ten and fractions), measurement and data, and geometry. The K - 4 curriculum can be looked at as building blocks of concepts and skills with foundational skills introduced first, then rehearsed, practiced and applied at each grade level. Mathematics instruction consists of hands-on, authentic activities in addition to the use of manipulatives and technology. There is a strong emphasis on problem solving and communication of the process used to achieve an outcome. Through all the strands of math, critical thinking skills are empowering the students to become thoughtful, articulate and active members of our society.

Goals

This curriculum is designed to advance students through grade-specific standards, develop a deeper understanding of skills, and work toward meeting the expectations of mathematics to prepare students for college and careers in order for them to succeed in the future. The goals of this curriculum will develop in our students the ability to:

1. make sense of problems and persevere in solving them.
2. reason abstractly and quantitatively.
3. construct viable arguments and critique the reasoning of others.
4. model with mathematics.
5. use appropriate tools strategically.
6. attend to precision.
7. look for and make use of structure.
8. look for and express regularity in repeated reasoning.

Mendham Township School District
Math Curriculum
Grade 3

Grade 3- Unit 1 Operations and Algebraic Thinking (Chapters 1- 6)

Stage 1: Desired Results

Unit Goals:

- Understanding multiplication and division
- Understanding multiplication strategies
- Understanding division strategies
- Understanding patterns
- Understand area
- Understand estimation

Essential Questions: (How/Why/To What Extent?)

How do you use strategies to multiply?

How can you use multiplication to find how many in all?

How can you use multiplication facts, place value, and properties to solve multiplication?

How can you use division to find how many in each group or how many equal groups?

How do you use strategies to divide?

How can you use multiplication to find area of shapes?

Skills/Knowledge:

- Compare multiplication to division.
- Model multiplication and division problems.
- Make a plan to solve a problem.
- Solve a division problem.
- Identify a pattern.
- Explain a pattern in a multiplication table.
- Connect patterns to the multiplication table.
- Identify the area of a shape.
- Explain how to find the area of a shape.
- Compare the area of one shape to another.
- Find the total area of a shape.
- Solve a problem.
- Round numbers.
- Estimate the difference between numbers.

NJSLS: *Operations and Algebraic Thinking*

3.OA.A.1 Interpret products of whole numbers, e.g., interpret 5×7 as the total number of objects in 5 groups of 7 objects each. For example, describe and/or represent a context in which a total number of objects can be expressed as 5×7 .

3.OA.A.2 Interpret whole-number quotients of whole numbers, e.g., interpret $56 \div 8$ as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each. For example, describe and/or represent a context in which a number of shares or a number of groups can be expressed as $56 \div 8$.

3.OA.A.3 Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.

3.OA.A.4 Determine the unknown whole number in a multiplication or division equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations $8 \times ? = 48$, $5 = \div 3$, $6 \times 6 = ?$.

3.OA.B.5 Apply properties of operations as strategies to multiply and divide. Examples: If $6 \times 4 = 24$ is known, then $4 \times 6 = 24$ is also known. (Commutative property of multiplication.) $3 \times 5 \times 2$ can be found by $3 \times 5 = 15$, then $15 \times 2 = 30$, or by $5 \times 2 = 10$, then $3 \times 10 = 30$. (Associative property of multiplication.) Knowing that $8 \times 5 = 40$ and $8 \times 2 = 16$, one can find 8×7 as $8 \times (5 + 2) = (8 \times 5) + (8 \times 2) = 40 + 16 = 56$. (Distributive property)

3.OA.B.6 Understand division as an unknown-factor problem. For example, find $32 \div 8$ by finding the number that makes 32 when multiplied by 8.

3.OA.C.7 Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$, one knows $40 \div 5 = 8$) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.

3.OA.D.8 Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

3.OA.D.9 Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.

Numbers and Operations in Base Ten

3.NBT.A.2 Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.

Measurement & Data

3.MD.C.5.a, b Recognize area as an attribute of plane figures and understand concepts of area measurement.

a. A square with side length 1 unit, called “a unit square,” is said to have “one square unit” of area, and can be used to measure area.

b. A plane figure which can be covered without gaps or overlaps by n unit squares is said to have an area of n square units.

3.MD.C.6 Measure areas by counting unit squares (square cm, square m, square in, square ft, and nonstandard units).

3.MD.C.7 a, b Relate area to the operations of multiplication and addition.

a. Find the area of a rectangle with whole-number side lengths by tiling it, and show that the area is the same as would be found by multiplying the side lengths.

b. Multiply side lengths to find areas of rectangles with whole number side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.

Stage 2-Assessment

Assessments:

- **Formative:**
 - Independent Classwork
 - Checkpoint quizzes
 - Freckle/IXL
- **Summative:**
 - Performance Tasks
 - End of chapter assessment
 - Course Benchmark– Big Ideas assessment book
 - Fact Fluency
 - Alternative assessments could include a project or performance task

Evidence:

- Observation of student participation and written work showing an understanding of the following Mathematical Practices: Note - these mathematical practices are proven methods of demonstrating mathematical processes and evidence of student learning. The following practices are incorporated into the updated New Jersey Student Learning Standards (NJSLS) and should be highlighted in lessons as strategies for success.
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 - MP6. Attend to precision.
 - MP7. Look for and make use of structure.
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Stage 3- Learning Plan

Teaching Points:

Chapter 1: Understanding Multiplication & Division

1. Use Equal Groups to Multiply
2. Use Number Lines to Multiply
3. Use Arrays to Multiply
4. Multiply in Any Order
5. Divide: Size of Equal Groups
6. Divide: Number of Equal Groups
7. Use Number Lines to Divide

Chapter 2: Multiplication Facts & Strategies

1. Multiply by 2
2. Multiply by 5
3. Multiply by 0 or 1
4. Use the Distributive Property
5. Problem Solving: Multiplication

Chapter 3: More Multiplication Facts & Strategies

1. Multiply by 3

2. Multiply by 4
3. Multiply by 5
4. Multiply by 6
5. Multiply by 7
6. Multiply by 8
7. Multiply by 9
8. Practice Multiplication Strategies
9. Multiply Three Factors
10. More Problem Solving: Multiplication

Chapter 4: Division Facts & Strategies

1. Use Arrays to Divide
2. Relate Multiplication & Division
3. Divide by 2,5, or 10
4. Divide by 3 or 4
5. Divide by 6 or 7
6. Divide by 8 or 9
7. Divide by 0 or 1
8. Practice Division Strategies
9. Problem Solving: Division

Chapter 5: Patterns & Fluency

1. Identify Patterns in the Multiplication Table
2. Use the Multiplication Table
3. More Problem Solving

Chapter 6: Relate Area to Multiplication

1. Understand Area
2. Measure Area Using Standard Units
3. Find Area by Multiplying
4. Area and the Distributive Property
5. Find Areas of More Shapes

Integrated accommodations and modifications for students with IEP/504/ELL/Gifted and Talented:

- Reteach and Enrichment activities from Big Ideas Math
- Small group instruction
- Use of manipulatives, visuals, and other teaching tools
- Flexible grouping/centers
- Check for comprehension and understanding
- Repeating, clarifying or rewording directions
- Teacher modeling of what is expected and necessary steps to complete task
- Provide student with open ended questions that stimulate higher order thinking
- Tiered assignments
- Tier 2 Math Intervention

List of Core Instructional and Supplemental Materials:

Core:

Big Ideas: Modeling Real Life

Supplemental:

MTES Math Tasks

Freckle Math

Star Math

www.illustrativemathematics.org

www.edulastic.com

[Inside Mathematics](#)

IXL Math

Manipulatives

Smartboard

Interdisciplinary Connections

NJSLS:

ELA

RI.3.4. Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 3 topic or subject area.

RI.3.5. Use text features and search tools (e.g., key words, sidebars, hyperlinks) to locate information relevant to a given topic efficiently.

SL.3.5. Use multimedia to demonstrate fluid reading at an understandable pace; add visual displays when appropriate to emphasize or enhance certain facts or details.

SL.3.6. Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification.

L.3.6. Acquire and use accurately grade-appropriate conversational, general academic, and domain-specific words and phrases, including those that signal spatial and temporal relationships

Career Readiness, Life Literacies, and Key Skills

9.1.2.CR.1: Recognize ways to volunteer in the classroom, school and community.

Personal Financial Literacy

9.1.5.CR.1 Compare various ways to give back and relate them to your strengths, interests, and other personal factors.

9.1.5.FL.1 Identify various types of financial institutions and the services they offer including banks, credit unions, and credit card companies.

9.1.5.FP.1 Illustrate the impact of financial traits on financial decisions.

9.1.5.FP.3 Analyze how spending choices and decision-making can result in positive or negative consequences.

9.1.5.FP.4 Explain the role of spending money and how it affects wellbeing and happiness (e.g., "happy money," experiences over things, donating to causes, anticipation, etc.).

9.1.5.PB.1 Develop a personal budget and explain how it reflects spending, saving, and charitable contributions.

9.1.5.PB.2 Describe choices consumers have with money (e.g., save, spend, donate).

Integration of Technology Standards

Technology Standard

8.1.5.DA.3: Organize and present collected data visually to communicate insights gained from different views of the data

8.1.2.AP.1: Model daily processes by creating and following algorithms to complete tasks.

Grade 3- Unit 2 Numbers & Operations (Chapters 7-9)

Stage 1: Desired Results

Unit Goals:

- Understanding estimation
- Understanding addition and subtraction properties
- Understanding multiples

Essential Questions:(How/Why/To What Extent?)

- How can you apply strategies to add and subtract whole numbers?
- How can you add and subtract whole numbers and decide if the answer is reasonable?
- How can you use estimation to solve problems?

Skills/Knowledge:

- Identify the values of different numbers.
- Explain how to round numbers.
- Round numbers.
- Estimate the difference between numbers.
- Identify properties of addition.
- Explain what addition properties mean.
- Count on and count back to problem solve.
- Solve a problem.
- Skip count.
- Describe the pattern when multiplying.
- Make a plan to solve a problem.

NJSLS:

Number and Operations--Fractions

3.NF.A.1 Understand a fraction $1/b$ as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction a/b as the quantity formed by a parts of size $1/b$.

3.NF.A.2 a, b Understand a fraction as a number on the number line; represent fractions on a number line diagram.

a. Represent a fraction $1/b$ on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into b equal parts. Recognize that each part has size $1/b$ and that the endpoint of the part based at 0 locates the number $1/b$ on the number line.

b. Represent a fraction a/b on a number line diagram by marking off a lengths $1/b$ from 0. Recognize that the resulting interval has size a/b and that its endpoint locates the number a/b on the number line.

3.NF.A.3 Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.

a. Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line.

b. Recognize and generate simple equivalent fractions, e.g., $1/2 = 2/4$, $4/6 = 2/3$. Explain why the fractions are equivalent, e.g., by using a visual fraction model.

3.OA.D.8 Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

3.NBT.A.1 Use place value understanding to round whole numbers to the nearest 10 or 100.

3.NBT.A.2 Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.

3.NBT.A.3 Multiply one-digit whole numbers by multiples of 10 in the range 10–90 (e.g., 9×80 , 5×60) using strategies based on place value and properties of operations.

Stage 2-Assessment

Assessments:

- **Formative:**
 - Independent Classwork
 - Checkpoint quizzes
 - Freckle/IXL
- **Summative:**
 - Benchmark assessment Beginning/Mid/End of year
 - End of chapter assessment
 - Course Benchmark– Big Ideas assessment book
 - Fact Fluency
 - Alternative assessments could include a project or performance task

Evidence:

- Observation of student participation and written work showing an understanding of the following Mathematical Practices: Note - these mathematical practices are proven methods of demonstrating mathematical processes and evidence of student learning. The following practices are incorporated into the updated New Jersey Student Learning Standards (NJSLS) and should be highlighted in lessons as strategies for success.
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 - MP4. Model with mathematics.
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 - MP6. Attend to precision.
 - MP7. Look for and make use of structure.
 - MP8. Look for and express regularity in repeated reasoning.

Stage 3- Learning Plan

Teaching Points:

Chapter 8: Add and Subtract Multi-Digit Numbers

1. Identify Addition Properties
2. Use Number Lines to Add
3. Use Mental Math to Add
4. Use Partial Sums to Add
5. Add Three-Digit Numbers
6. Add Three-Digit Numbers
7. Use Number Lines to Subtract
8. Use Mental Math to Subtract
9. Subtract Three-Digit Numbers
10. Relate Addition and Subtraction
11. Problem Solving: Addition and Subtraction

Chapter 9: Multiples and Problem Solving

1. Use Number Lines to Multiply by Multiples of 10
2. Use Place Value to Multiply by Multiples of 10
3. Use Properties to Multiply by Multiples of 10
4. Problem Solving: Multiplication and Division
5. Problem Solving: All Operations

Integrated accommodations and modifications for students with IEP/504/ELL/Gifted and Talented:

- Reteach and Enrichment activities from Big Ideas Math
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Smartboard

Interdisciplinary Connections

Project- Skateboard Designer - Connections with 21st Century Skills Careers (below)

Standards: NJSL 9.1.4.A.1; 9.1.4.A.3

Connection with Science Engineering: NJSL3-5ETS-1

NJSL:

English Language Arts

RL.3.1. Ask and answer questions, and make relevant connections to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.

W.3.4. With guidance and support from adults, produce writing in which the development and organization are appropriate to task and purpose.

W.3.8. Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.

SL.3.1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.

SL.3.2. Determine the main ideas and supporting details of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally

SL.3.3. Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.

SL.3.4. Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant,

descriptive details, speaking clearly at an understandable pace.

SL.3.5. Use multimedia to demonstrate fluid reading at an understandable pace; add visual displays when appropriate to emphasize or enhance certain facts or details.

SL.3.6. Speak in complete sentences when appropriate to task and situation in order to provide requested detail or clarification.

Social Studies

6.1.5.EconET.1: Identify positive and negative incentives that influence the decisions people make.

Science

Big Ideas STEAM Performance Task

3-5-ETS1-1 Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.

Career Readiness, Life Literacies, and Key Skills

Personal Financial Literacy

9.1.5.CR.1 Compare various ways to give back and relate them to your strengths, interests, and other personal factors.

9.1.5.FL.1 Identify various types of financial institutions and the services they offer including banks, credit unions, and credit card companies.

9.1.5.FP.1 Illustrate the impact of financial traits on financial decisions.

9.1.5.FP.3 Analyze how spending choices and decision-making can result in positive or negative consequences.

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9.1.5.PB.2 Describe choices consumers have with money (e.g., save, spend, donate).

Integration of Technology Standards

Technology Standard

8.1.5.DA.3: Organize and present collected data visually to communicate insights gained from different views of the data

8.1.2.AP.1: Model daily processes by creating and following algorithms to complete tasks.

Grade 3- Unit 3 Numbers and Operations-Fractions (Chapters 10-11)

Stage 1: Desired Results

Unit Goals:

- Understanding fractions

Essential Questions:(How/Why/To What Extent?)

- How can you use fractions to describe how much or how many?
- How can you compare fractions?
- How can you use a number line to find fractions?

Skills/Knowledge:

- Name equal parts.
- Identify a unit fraction.
- Write a fraction.
- Plot a fraction.
- Define a fraction.
- Find fractions on a number line.
- Explain how to use a number line to find fractions.
- Compare fractions on a number line.

NJSLS:

Number and Operations-Fractions

3.NF.A.1 Understand a fraction $1/b$ as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction a/b as the quantity formed by a parts of size $1/b$.

3.NF.A.2.a, b Understand a fraction as a number on the number line; represent fractions on a number line diagram.

a. Represent a fraction $1/b$ on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into b equal parts. Recognize that each part has size $1/b$ and that the endpoint of the part based at 0 locates the number $1/b$ on the number line.

b. Represent a fraction a/b on a number line diagram by marking off a lengths $1/b$ from 0. Recognize that the resulting interval has size a/b and that its endpoint locates the number a/b on the number line.

3.NF.A.3.a, b Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.

c. Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers.

Examples: Express 3 in the form $3 = 3/1$; recognize that $6/1 = 6$; locate $4/4$ and 1 at the same point of a number line diagram.

3.NF.A.3.c, d Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size.

c. Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers.

Examples: Express 3 in the form $3 = 3/1$; recognize that $6/1 = 6$; locate $4/4$ and 1 at the same point of a number line diagram.

d. Compare two fractions with the same numerator or the same denominator by reasoning about their size.

Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with the symbols $>$, $=$, or $<$.

Geometry

3.G.A.2 Reason with shapes and their attributes.

Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. For example, partition a shape into 4 parts with equal area, and describe the area of each part as $\frac{1}{4}$ of the area of the shape.

Stage 2-Assessment

Assessments:

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- **Summative:**
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Stage 3- Learning Plan

Teaching Points:

Chapter 10: Understanding Fractions

1. Equal Parts of a Whole
2. Understand a Unit Fraction
3. Write Fractions of a Whole
4. Fractions on a Number Line: Less Than 1
5. Fractions on a Number Line: Greater Than 1

Chapter 11

1. Equivalent Fractions
2. Equivalent Fractions on a Number Line
3. Relate Fractions and Whole Numbers
4. Compare Fractions with the Same Denominator
5. Compare Fractions with the Same Numerator

6. Compare Fractions on a Number Line
7. Compare Fractions
8. Compare and Order Fractions

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NJSLS:

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Integration of Technology Standards

Technology Standard

8.1.5.DA.3: Organize and present collected data visually to communicate insights gained from different views of the data

8.1.2.AP.1: Model daily processes by creating and following algorithms to complete tasks.

Grade 3- Unit 4 Measurement and Data (Chapter 12)

Stage 1: Desired Results

Unit Goals:

- Understand time and measurement

Essential Questions: (How/Why/To What Extent?)

- How can you tell time and use measurement to describe the size of something?
- How can you solve problems including perimeter and area?

Skills/Knowledge:

- Explain how to tell time to the nearest minute.
- Find the appropriate way to measure an object.
- Solve time interval problems.
- Compare one measurement to another.

NJSLS:

Measurement and Data

3.MD.A.1

3.MD.A.2

Number and Operations--Fractions

3.NF.A.3

Stage 2-Assessment

Assessments:

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Stage 3- Learning Plan

Teaching Points:

Chapter 12: Understand Time, Liquid Volume, and Mass

1. Time to the Nearest Minute
2. Measure Elapsed Time within the Hour
3. Measure Elapsed Time Across the Hour
4. Problem Solving: Time Interval Problems
5. Understand and Estimate Liquid Volume
6. Measure Liquid Volume
7. Understand and Estimate Mass
8. Measure

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- Use of manipulatives, visuals, and other teaching tools
- Flexible grouping/centers
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- Teacher modeling of what is expected and necessary steps to complete task
- Provide student with open ended questions that stimulate higher order thinking
- Tiered assignments
- Tier 2 Math Intervention

List of Core Instructional and Supplemental Materials:

Core:

Big Ideas: Modeling Real Life

Supplemental:

MTES Math Tasks

Freckle Math

Star Math

www.illustrativemathematics.org

www.edulastic.com

[Inside Mathematics](#)

IXL Math

Manipulatives

Smartboard

Interdisciplinary Connections

NJSLS:

English Language Arts

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Social Studies

6.1.5.EconET.1: Identify positive and negative incentives that influence the decisions people make.

Science

Big Ideas STEAM Performance Task

3-5-ETS1-1 Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.

Career Readiness, Life Literacies, and Key Skills

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Integration of Technology Standards

Technology Standard

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8.1.2.AP.1: Model daily processes by creating and following algorithms to complete tasks.

Grade 3- Unit 5 Geometry (Chapters 13-15)

Stage 1: Desired Results

Unit Goals:

- Understand two-dimensional shapes.
- Understand data.
- Understand perimeter and area.

Essential Questions: (How/Why/To What Extent?)

- What are some ways to describe and classify two-dimensional shapes?
- How can you represent and interpret data?

Skills/Knowledge:

- Define two-dimensional shapes.
- Explain different shapes and their features.
- Compare one shape to another.
- Draw a shape.
- Identify a tool to collect data.
- Create a tally chart to make a graph.
- Represent data in different ways.
- Interpret data in different ways.
- Identify the perimeter of a shape.
- Describe the area of a shape.
- Compare the area and perimeter of a shape.
- Find the area and perimeter of a shape

NJSLS:

3.OA.A.3 Represent and solve problems involving multiplication and division.

Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. 1

3.OA.C.7 Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that $8 \times 5 = 40$, one knows $40 \div 5 = 8$) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.

3.NBT.A.2 Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.

3.MD.B.3 Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step “how many more” and “how many less” problems using information presented in scaled bar graphs. For example, draw a bar graph in which each square in the bar graph might represent 5 pets.

3.MD.B.4 Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units—whole numbers, halves, or quarters.

3.MD.C.5.A Recognize area as an attribute of plane figures and understand concepts of area measurement.

a. A square with side length 1 unit, called “a unit square,” is said to have “one square unit” of area, and can be used to measure area.

3.MD.C.6 Measure areas by counting unit squares (square cm, square m, square in, square ft, and nonstandard units).

3.MD.C.7.B Relate area to the operations of multiplication and addition.

Multiply side lengths to find areas of rectangles with whole number side lengths in the context of solving real

world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.

3.MD.D.8 Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.

Stage 2-Assessment

Assessments:

- **Formative:**
 - Independent Classwork
 - Checkpoint quizzes
 - Freckle/IXL
- **Summative:**
 - Benchmark assessment Beginning/Mid/End of year
 - End of chapter assessment
 - Course Benchmark– Big Ideas assessment book
 - Fact Fluency
 - Alternative assessments could include a project or performance task

Evidence:

- Observation of student participation and written work showing an understanding of the following Mathematical Practices: Note - these mathematical practices are proven methods of demonstrating mathematical processes and evidence of student learning. The following practices are incorporated into the updated New Jersey Student Learning Standards (NJSLS) and should be highlighted in lessons as strategies for success.
 - MP1. Make sense of problems and persevere in solving them.
 - MP2. Reason abstractly and quantitatively.
 - MP3. Construct viable arguments and critique the reasoning of others.
 - MP4. Model with mathematics.
 - MP5. Use appropriate tools strategically.
 - MP6. Attend to precision.
 - MP7. Look for and make use of structure.
 - MP8. Look for and express regularity in repeated reasoning.

Stage 3- Learning Plan

Teaching Points:

Chapter 13: Classify Two-Dimensional

1. Identify Sides and Angles of Quadrilaterals
2. Describe Quadrilaterals
3. Classify Quadrilaterals
4. Draw Quadrilaterals

Chapter 14: Represent and Interpret Data

1. Read and Interpret Picture Graphs
2. Make Picture Graphs
3. Read and Interpret Bar Graphs
4. Make Bar Graphs

5. Make Line Plots
6. Measure Lengths: Half Inch
7. Measure Lengths: Quarter Inch

Chapter 15: Find Perimeter and Area

1. Understand Perimeter
2. Find Perimeters of Polygons
3. Find Unknown Side Lengths
4. Same Perimeter, Different Areas
5. Same Area, Different Perimeters

Integrated accommodations and modifications for students with IEP/504/ELL/Gifted and Talented:

- Reteach and Enrichment activities from Big Ideas Math
- Small group instruction
- Use of manipulatives, visuals, and other teaching tools
- Flexible grouping/centers
- Check for comprehension and understanding
- Repeating, clarifying or rewording directions
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Pacing Guide

Chapter	NJSLS	Marking Period	Days	Assessments
Chapters 1-15 Pretest		1	1 Day	Pre-Course Test
1. Understand Multiplication and Division	3.OA.A.1 3.OA.A.3 3.OA.B.5 3.OA.A.2	1	11 days	Ch. 1 Test
2. Multiplication Facts and Strategies	3.OA.A.3 3.OA.A.4 3.OA.C.7 3.OA.D.9 3.OA.B.5	1	10 days	Ch. 2 Test
3. More Multiplication Facts and Strategies	3.OA.A.3 3.OA.A.4 3.OA.C.7 3.OA.B.5	1	13 days	Ch. 3 Test
4. Division Facts and Strategies	3.OA.A.2 3.OA.A.3 3.OA.A.4 3.OA.B.6 3.OA.C.7 3.OA.B.5	1	14 days	Ch. 4 Test *#1 Performance Task
Chapters 1-4 Course Benchmark		1	1 day	Course Benchmark 1
5. Patterns and Fluency	3.OA.C.7 3.OA.D.8 3.OA.D.9 3.OA.A.4	2	8 days	Ch. 5 Test
6. Relate Aead to Multiplication	3.MD.C.5 3.MD.C.6 3.MD.C.7	2	9 days	Ch. 6 Test
7. Round and Estimate Numbers	3.NBT.A.2 3.NBT.A.1	2	9 days	Ch. 7 Test
8. Add and Subtract Multi-Digit Numbers	3.NBT.A.2 3.OA.D.8	2	16 days	Ch. 8 Test *#2 Performance Task

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Chapter 5-8 Course Benchmark 2			1 day	Course Benchmark 2
9. Multiples and Problem Solving	3.NBT.A.3 3.OA.B.8 3.OA.D.8	3	9 days	Ch. 9 Test
10. Understand Fractions	3.NF.A.1 3.G.A.2 3.NF.A.2.a 3.NF.A.2.b	3	9 days	Ch. 10 Test
11. Understand Fraction Equivalence and Comparison	3.NF.A.3.a 3.NF.A.3.b 3.NF.A.3.c 3.NF.A.3.d	3	12 days	Ch. 11 Test
12. Understand Time, Liquid Volume, and Mass	3.MD.A.1 3.MD.A.2	3	13 days	Ch. 12 Test
Chapter 9-12 Benchmark 3	Chapter 8-11		1 day	Course Benchmark 3
13. Classify Two-Dimensional Shapes	3.G.A.1	4	8 days	Ch. 13 Test
14. Represent and Interpret Data	3.MD.B.4 3.MD.B.3	4	11 days	Ch. 14 Test
15. Find Perimeter and Area	3.MD.D.8 3.MD.C.7 3.MD.C.5	4	10 days	Ch. 15 Test
Chapter 1-15 Course Posttest			1	

Updated June 2023