

Mendham Township

Second 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
Curriculum
Grade 2

Grade 2- Unit 1: Operations & Algebraic Thinking (Chapters 1-6)

Stage 1: Desired Results

Unit Goals:

- Understand numbers and arrays
- Understand strategies
- Understand addition
- Understand subtraction
- Understand subtraction fluently

Essential Questions:

- How can you use patterns and strategies to find sums and differences for basic facts?
- How do you use repeated addition to count the number of objects in an array?
- What are some different ways to add 2-digit numbers?
- How can you solve one- and two-step word problems within 100?
- How do you add and subtract 2-digit numbers with and without regrouping?

Skills/Knowledge:

- Create an array
- Write equations
- Use a strategy to help solve a problem
- Reflect on the strategy used
- Write a sum
- Solve addition problems
- Write a difference
- Solve subtraction problems
- Show regrouping
- Model subtraction problems

NJSLS:

Operations and Algebraic Thinking

2.OA.A.1 Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.

2.OA.B.2 Fluently add and subtract within 20 using mental strategies.2 By end of Grade 2, know from memory all sums of two one-digit numbers.

2.OA.C.3 Determine whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends.

2.OA.C.4 Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.

Number and Operations in Base Ten

2.NBT.A.4 Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using $>$, $=$, and $<$ symbols to record the results of comparisons.

2.NBT.B.5 Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.

2.NBT.B.6 Add up to four two-digit numbers using strategies based on place value and properties of operations.

Measurement and Data

2.MD.B.6 Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole-number sums and differences within 100 on a number line diagram.

Stage 2- Assessment

Assessments:

- **Formative:**
 - Independent Classwork
 - Checkpoint Quizzes
 - IXL
- **Summative:**
 - Benchmark assessments: Beginning/Mid/End of year
 - End of chapter assessments
 - Course Benchmark (Big Ideas Assessment Book)
 - Fact Fluency Tests
 - 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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 - 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.

Teaching Points

Chapter 1: Numbers and Arrays

1. Even and Odd Numbers
2. Model Even and Odd Numbers
3. Equal Groups
4. Use Arrays
5. Make Arrays

Chapter 2: Fluency and Strategies Within 20

1. Add in Any Order
2. Use Doubles
3. Add Three Numbers
4. Make a 10 to Add
5. Count On and Count Back to Subtract
6. Relate Addition and Subtraction
7. Get to 10 to Subtract
8. Practice Addition and Subtraction
9. Problem Solving: Addition and Subtraction

Chapter 3: Addition to 100 Strategies

1. Add Tens Using a Number Line
2. Add Tens and Ones Using a Number Line
3. Use Place Value to Add
4. Decompose to Add Tens and Ones
5. Use Compensation to Add
6. Practice Addition Strategies
7. Problem Solving: Addition

Chapter 4: Fluently Add Within 100

1. Use Partial Sums to Add
2. More Partial Sums
3. Regroup to Add
4. Add Two-Digit Numbers
5. Practice Adding Two-Digit Numbers
6. More Problem Solving: Addition

Chapter 5: Subtraction to 100 Strategies

1. Subtract Tens Using a Number Line
2. Subtract Tens and Ones Using a Number Line
3. Use Addition to Subtract
4. Decompose to Subtract
5. Decompose to Subtract Tens and Ones
6. Use Compensation to Subtract
7. Practice Subtraction Strategies
8. Problem Solving: Subtraction

Chapter 6: Fluently Subtract Within 100

1. Model and Regroup to Subtract
2. Use Models to Subtract a One-Digit Number from a Two-Digit Number
3. Use Models to Subtract Two-Digit Numbers

4. Subtract from a Two-Digit Number
5. Use Addition to Check Subtraction
6. Practice Two-Digit Subtraction
7. More Problem Solving: Subtraction

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
- 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

List of Core Instructional and Supplemental Materials

Big Ideas: Modeling Real Life

Supplemental:

Star Math
 IXL Math
 Smart Board
 Graph Paper
 Number Line
 Ten Frames/Counters
 Flashcards
 Place Value Chart
 Hundreds Chart
 Hundreds, Tens, Ones manipulatives

Interdisciplinary Connections

NJSLS:

English Language Arts

SL.2.1. Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups. A. Follow agreed-upon norms for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion). B. Build on others' talk in conversations by linking their explicit comments to the remarks of others. C. Ask for clarification and further explanation as needed about the topics and texts under discussion.

SL.2.2. Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.

SL.2.3. Ask and answer questions about what a speaker says in order to clarify comprehension, gather additional information, or deepen understanding of a topic or issue.

W.2.7. Participate in shared research and writing projects (e.g., read a number of books on a single topic to produce a report; record science observations).

W.2.8. Recall information from experiences or gather information from provided sources to answer a question.

RI.2.1. Ask and answer such questions as who, what, where, when, why, and how to demonstrate

understanding of key details in a text.

RI.2.2. Identify the main topic of a multiparagraph text as well as the focus of specific paragraphs within the text.

RI.2.3. Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text.

Science

2-LS4-1 Make observations of plants and animals to compare the diversity of life in different habitats.

Physical Education

2.2.2.MSC.1: Perform a combination of sequences of locomotor movements and rhythmic activities (e.g., walking, balancing, hopping, skipping, running).

**For each lesson, refer to Cross-Curricular Connections in TE on the page before each practice page.*

Career Readiness, Life Literacies, and Key Skills

9.1.2.PB.1: Determine various ways to save and places in the local community that help people save and accumulate money over time.

9.1.2.PB.2: Explain why an individual would choose to save money.

Integration of the Technology

8.1.5.AP.1: Compare and refine multiple algorithms for the same task and determine which is the most appropriate.

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

8.1.5.DA.4: Organize and present climate change data visually to highlight relationships or support a claim.

Grade 2- Unit 2: Numbers & Operation in Base Ten (Chapters 7-10)

Stage 1: Desired Results

Unit Goals:

- Understand place value
- Understand counting
- Understand adding numbers
- Understand subtraction numbers

Essential Questions:

- How do you use place value to find the values of numbers and describe numbers in different ways?
- How can you use place value to model, write, and compare 3-digit numbers?
- What are some strategies for adding and subtracting 3-digit numbers?

Skills/Knowledge:

- Model and write numbers
- Represent numbers in different ways
- Compare numbers and their values
- Explain how to use different counting strategies
- Explain how to use different subtraction strategies
- Model subtraction problems

NJSLS:

Number and Operations in Base Ten

2.NBT.A.1 Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases: a. 100 can be thought of as a bundle of ten tens — called a “hundred.” b. The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).

2.NBT.A.2 Count within 1000; skip-count by 5s, 10s, and 100s.

2.NBT.A.3 Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.

2.NBT.A.4 Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using $>$, $=$, and $<$ symbols to record the results of comparisons.

2.NBT.B.6 Add up to four two-digit numbers using strategies based on place value and properties of operations.

2.NBT.B.7 Add and subtract within 1000, 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. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.

2.NBT.B.8 Mentally add 10 or 100 to a given number 100–900, and mentally subtract 10 or 100 from a given number 100–900.

2.NBT.B.9 Explain why addition and subtraction strategies work, using place value and the properties of operations.

Stage 2-Assessment

Assessments:

- **Formative:**
 - Independent Classwork
 - Checkpoint Quizzes
 - IXL
- **Summative:**
 - Benchmark assessments: Beginning/Mid/End of year
 - End of chapter assessments
 - Course Benchmark (Big Ideas Assessment Book)
 - Fact Fluency Tests
 - 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.
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Stage 3- Learning Plan

Teaching Points

Chapter 7: Understand Place Value to 1,000

1. Hundreds
2. Model Numbers to 1,000
3. Understand Place Value
4. Write Three-Digit Numbers
5. Represent Numbers in Different Ways

Chapter 8: Count and Compare Numbers to 1,000

1. Count to 120 in Different Ways
2. Count to 1,000 in Different Ways
3. Place Value Patterns
4. Find More or Less
5. Compare Numbers Using Symbols
6. Compare Numbers Using a Number Line

Chapter 9: Add Numbers Within 1,000

1. Add 10 and 100
2. Use a Number Line to Add Hundreds and Tens
3. Use a Number Line to Add Three-Digit Numbers
4. Use Compensation to Add Three-Digit Numbers
5. Use Partial Sums to Add Three-Digit Numbers
6. Use Models to Add Three-Digit Numbers
7. Add Three-Digit Numbers
8. Add Up to 4 Two-Digits Numbers
9. Explain Addition Strategies

Chapter 10: Subtract Numbers Within 1,000

1. Subtract 10 and 100
2. Use a Number Line to Subtract Hundreds and Tens
3. Use a Number Line to Subtract Three-Digit Numbers
4. Use Compensation to Subtract Three-Digit Numbers
5. Use Models to Subtract Three-Digit Numbers
6. Subtract Three-Digit Numbers
7. Subtract from Numbers That Contain Zeros
8. Use Addition to Subtract
9. Explain Subtraction Strategies

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
- 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

List of Core Instructional and Supplemental Materials

Big Ideas: Modeling Real Life

Supplemental:

Star Math

IXL Math

Smart Board

Graph Paper

Number Line

Ten Frames/Counters

Flashcards

Place Value Chart

Hundreds Chart

Hundreds, Tens, Ones manipulatives

Interdisciplinary Connections

NJSLS:

English Language Arts

SL.2.1. Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups. A. Follow agreed-upon norms for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion). B. Build on others' talk in conversations by linking their explicit comments to the remarks of others. C. Ask for clarification and further explanation as needed about the topics and texts under discussion.

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SL.2.3. Ask and answer questions about what a speaker says in order to clarify comprehension, gather additional information, or deepen understanding of a topic or issue.

W.2.7. Participate in shared research and writing projects (e.g., read a number of books on a single topic to produce a report; record science observations).

W.2.8. Recall information from experiences or gather information from provided sources to answer a question.

RI.2.1. Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.

RI.2.2. Identify the main topic of a multiparagraph text as well as the focus of specific paragraphs within the text.

Social Studies

6.1.2.CivicsPD.1 Engage in discussions effectively by asking questions, considering facts, listening to the ideas of others, and sharing opinions.

6.1.2.CivicsPD.2: Establish a process for how individuals can effectively work together to make decisions.

Art

2.5.2.CR1b Engage in individual and collaborative art making through observation and investigation of the world, and in response to personal interests and curiosity

Music

1.3A.2.CR1a: Explore, create and improvise musical ideas using rhythmic and melodic patterns in various meters and tonalities.

**For each lesson, refer to Cross-Curricular Connections in TE on the page before each practice page.*

Career Readiness, Life Literacies, and Key Skills

9.1.2.PB.1: Determine various ways to save and places in the local community that help people save and accumulate money over time.

9.1.2.PB.2: Explain why an individual would choose to save money.

Integration of the Technology

8.1.5.AP.1: Compare and refine multiple algorithms for the same task and determine which is the most appropriate.

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

8.1.5.DA.4: Organize and present climate change data visually to highlight relationships or support a claim.

Grade 2- Unit 3: Measurement & Data (Chapters 11-14)

Stage 1: Desired Results

Unit Goals:

- Understand measurement
- Understand length problems
- Understand data
- Understand money and time

Essential Questions:

- How do you use the value of coins and bills to find the total value of a group of money?
- How do you read times shown on analog and digital clocks?
- What are some of the methods and tools that can be used to estimate and measure length?
- What are some of the methods and tools that can be used to estimate and measure length in metric units?
- How do tally charts, picture graphs, and bar graphs help you solve problems?

Skills/Knowledge:

- Compare the measurements of different objects
- Measure objects
- Compare measurement tools to solve problems
- Reflect on the measurement strategy I used
- Represent data in different ways
- Interpret data in different ways
- Compare the value of one coin to another and tell the time
- Solve money and time problems

NJSLS:

Measurement and Data

2.MD.A.1 Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.

2.MD.A.2 Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen.

2.MD.A.3 Estimate lengths using units of inches, feet, centimeters, and meters.

2.MD.A.4 Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.

2.MD.B.5 Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem.

2.MD.B.6 Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole-number sums and differences within 100 on a number line diagram.

2.MD.C.7 Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.

2.MD.C.8 Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and ¢ symbols appropriately. Example: If you have 2 dimes and 3 pennies, how many cents do you have?

2.MD.D.9 Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units.

2.MD.D.10 Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put together, take-apart, and compare problems⁴ using information presented in a bar graph.

Stage 2-Assessment

Assessments:

- **Formative:**
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 - Checkpoint Quizzes
 - IXL
- **Summative:**
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Evidence:

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Stage 3- Learning Plan

Teaching Points

Chapter 11: Measure and Estimate Lengths

1. Measure Lengths in Centimeters
2. Measure Objects Using Metric Length Units
3. Estimate Lengths in Metric Units
4. Measure Lengths in Inches
5. Measure Objects Using Customary Length Units
6. Estimate Lengths in Customary Units
7. Measure Objects Using Different Length Units

8. Measure and Compare Lengths

Chapter 12: Solve Length Problems

1. Use a Number Line to Add and Subtract Lengths
2. Problem Solving: Length
3. Problem Solving: Missing Measurement
4. Practice Measurement Problems

Chapter 13: Represent and Interpret Data

1. Sort and Organize Data
2. Read and Interpret Picture Graphs
3. Make Picture Graphs
4. Read and Interpret Bar Graphs
5. Make Bar Graphs
6. Make Line Plots
7. Measure Objects and Make Line Plots

Chapter 14: Money and Time

1. Find Total Values of Coins
2. Order to Find Total Values of Coins
3. Show Money Amounts in Different Ways
4. Make One Dollar
5. Make Change from One Dollar
6. Find Total Values of Bills
7. Problem Solving: Money
8. Tell Time to the Nearest Five Minutes
9. Tell Time Before and After the Hour
10. Relate A.M. and P.M.

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

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- Use of manipulatives, visuals, and other teaching tools
- Flexible grouping
- 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

List of Core Instructional and Supplemental Materials

Big Ideas: Modeling Real Life

Supplemental:

Star Math

IXL Math

Smart Board

Inch and Centimeter Rulers

Meter Sticks and Yardsticks

Tape Measures

Number Lines

Teacher and Student Clocks

Graph Paper

Coins/Dollar Bills

Interdisciplinary Connections

NJSLS:

English Language Arts

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W.2.7. Participate in shared research and writing projects (e.g., read a number of books on a single topic to produce a report; record science observations).

W.2.8. Recall information from experiences or gather information from provided sources to answer a question.

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Science

K-2-ETS1-1 Ask questions, make observations, and gather information about a situation people want to change (e.g., climate change) to define a simple problem that can be solved through the development of a new or improved object or tool.

K-2-ETS1-2 Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.

**For each lesson, refer to Cross-Curricular Connections in TE on the page before each practice page.*

Career Readiness, Life Literacies, and Key Skills

9.1.2. FI.1: Differentiate the various forms of money and how they are used (e.g., coins, bills, checks, debit and credit cards).

9.1.2.FP.1: Explain how emotions influence whether a person spends or saves.

9.1.2.PB.1: Determine various ways to save and places in the local community that help people save and accumulate money over time.

9.1.2.PB.2: Explain why an individual would choose to save money.

Integration of the Technology

8.1.5.AP.1: Compare and refine multiple algorithms for the same task and determine which is the most appropriate.

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

8.1.5.DA.4: Organize and present climate change data visually to highlight relationships or support a claim.

Grade 2- Unit 4: Geometry (Chapter 15)

Stage 1: Desired Results

Unit Goals:

- Understand shapes

Essential Questions:

- What are some two-dimensional shapes and three-dimensional shapes?
- How can you show equal shares of shapes?

Skills/Knowledge:

- Compare one shape to another
- Draw different shapes

NJSLS:

Geometry

2.G.A.1 Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces.5 Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.

2.G.A.2 Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.

2.G.A.3 Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.

Stage 2-Assessment

Assessments:

- **Formative:**
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-

Stage 3- Learning Plan

Teaching Points

Chapter 15: Identify and Partition Shapes

1. Describe Two-Dimensional Shapes
2. Identify Angles of Polygons
3. Draw Polygons
4. Identify and Draw Cubes
5. Compose Rectangles
6. Identify Two, Three, or Four Equal Shares
7. Partition Shapes into Equal Shares
8. Analyze Equal Shares of the Same Shape

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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- Use of manipulatives, visuals, and other teaching tools
- Flexible grouping
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- Tiered assignments

List of Core Instructional and Supplemental Materials

Big Ideas: Modeling Real Life

Supplemental:

Star Math
IXL Math
Smart Board
Shape Manipulatives
Graph Paper

Interdisciplinary Connections

NJSLS:

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peers and adults in small and larger groups. A. Follow agreed-upon norms for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion). B. Build on others' talk in conversations by linking their explicit comments to the remarks of others. C. Ask for clarification and further explanation as needed about the topics and texts under discussion. SL.2.2. Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.

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W.2.8. Recall information from experiences or gather information from provided sources to answer a question.

RI.2.1. Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.

RI.2.2. Identify the main topic of a multiparagraph text as well as the focus of specific paragraphs within the text.

RI.2.3. Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text.

Art

2.5.2.CR1b Engage in individual and collaborative art making through observation and investigation of the world, and in response to personal interests and curiosity

**For each lesson, refer to Cross-Curricular Connections in TE on the page before each practice page.*

Career Readiness, Life Literacies, and Key Skills

9.1.2.PB.1: Determine various ways to save and places in the local community that help people save and accumulate money over time.

9.1.2.PB.2: Explain why an individual would choose to save money.

Integration of the Technology

8.1.5.AP.1: Compare and refine multiple algorithms for the same task and determine which is the most appropriate.

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

8.1.5.DA.4: Organize and present climate change data visually to highlight relationships or support a claim.

Pacing Guide

Chapter	NJSLS	Marking Period	Days	Assessments
Chapters 1-15				Pre-Course Test
1- Numbers and Arrays	2.OA.C.3 2.OA.B.2 2.OA.C.4	1	9 days	Chapter 1 Test
2- Fluency and Strategies Within 20	2.OA.A.1 2.OA.B.2 2.NBT.B.5	1	13 days	Chapter 2 Test
3- Addition to 100 Strategies	2.OA.A.1 2.NBT.B.5	1	11 days	Chapter 3 Test
4- Fluently Add Within 100	2.OA.A.1 2.NBT.B.5 2.NBT.B.6	1	11 days	Chapter 4 Test
Chapters 1-4 Course Benchmark		1	1 day	Course Benchmark 1
5- Subtraction to 100 Strategies	2.OA.A.1 2.NBT.B.5	2	12 days	Chapter 5 Test
6- Fluently Subtract Within 100	2.OA.A.1 2.NBT.B.5	2	11 days	Chapter 6 Test
7- Understand Place Value to 1,000	2.NBT.A.1 2.NBT.A.1a 2.NBT.A.1b 2.NBT.A.3	2	9 days	Chapter 7 Test
8- Count and Compare Numbers to 1,000	2.NBT.A.2 2.NBT.B.8 2.NBT.A.4	2	10 days	Chapter 8 Test
Chapters 5-8 Course Benchmark		2	1 day	Course Benchmark 2
9- Add Numbers Within 1,000	2.NBT.B.7 2.NBT.B.8 2.NBT.B.6 2.NBT.B.9	3	13 days	Chapter 9 Test
10- Subtract Numbers Within 1,000	2.NBT.B.7	3	13 days	Chapter 10 Test

	2.NBT.B.8 2.NBT.B.9			
11- Measure and Estimate Lengths	2.MD.A.1 2.MD.A.3 2.MD.A.2 2.MD.A.4	3	12 days	Chapter 11 Test
12- Solve Length Problems	2.MD.B.6 2.MD.B.5	4	8 days	Chapter 12 Test
Chapters 9-12 Course Benchmark		4	1 day	Course Benchmark 3
13- Represent and Interpret Data	2.MD.D.10 2.MD.D.9	4	11 days	Chapter 13 Test
14- Money and Time	2.NBT.B.5 2.MD.C.8 2.NBT.A.2 2.MD.C.7	4	14 days	Chapter 14 Test
15- Identify and Partition Shapes	2.G.A.1 2.OA.B.2 2.OA.C.4 2.G.A.2 2.G.A.3	4	12 days	Chapter 15 Test
Chapters. 1-15				Post-Course Test