Greenwich-Stow Creek Partnership Schools

Second Grade

Math Curriculum

Approved by the Board of Education

Stow Creek Board of Education: 8-22-2024

Greenwich Board of Education: 8-21-2024

Mathematics » Grade 2 » Introduction

In Grade 2, instructional time should focus on four critical areas: (1) extending understanding of base-ten notation; (2) developing accuracy and efficiency with addition and subtraction; (3) using standard units of measure; and (4) describing and analyzing shapes.

- 1. Students extend their understanding of the base-ten system. This includes ideas of counting in fives, tens, and multiples of hundreds, tens, and ones, as well as number relationships involving these units, including comparing. Students understand multi-digit numbers (up to 1000) written in base-ten notation, recognizing that the digits in each place represent amounts of thousands, hundreds, tens, or ones (e.g., 853 is 8 hundreds + 5 tens + 3 ones).
- 2. Students use their understanding of addition to develop accuracy and efficiency with addition and subtraction within 100. They solve problems within 1000 by applying their understanding of models for addition and subtraction, and they develop, discuss, and use efficient, accurate, and generalizable methods to compute sums and differences of whole numbers in base-ten notation, using their understanding of place value and the properties of operations. They select and accurately apply methods that are appropriate for the context and the numbers involved to mentally calculate sums and differences for numbers with only tens or only hundreds.
- 3. Students recognize the need for standard units of measure (centimeter and inch) and they use rulers and other measurement tools with the understanding that linear measure involves an iteration of units. They recognize that the smaller the unit, the more iterations they need to cover a given length.
- 4. Students describe and analyze shapes by examining their sides and angles. Students investigate, describe, and reason about decomposing and combining shapes to make other shapes. Through building, drawing, and analyzing two- and three-dimensional shapes, students develop a foundation for understanding area, volume, congruence, similarity, and symmetry in later grades.

Grade 2 Overview

Operations and Algebraic Thinking

- Represent and solve problems involving addition and subtraction.
- Add and subtract within 20.
- Work with equal groups of objects to gain foundations for multiplication.

Number and Operations in Base Ten

- Understand place value.
- Use place value understanding and properties of operations to add and subtract.

Measurement

- Measure and estimate lengths in standard units.
- Relate addition and subtraction to length.
- Work with time and money.

Data Literacy

- Understand concepts of data.
- Represent and interpret data.

Geometry

- Reason with shapes and their attributes.

Mathematical Practices

- Make sense of problems and persevere in solving them.
- Reason abstractly and quantitatively.
- Construct viable arguments and critique the reasoning of others.
- Model with mathematics.
- Use appropriate tools strategically.
- Attend to precision.
- Look for and make use of structure.
- Look for and express regularity in repeated reasoning.

Grade 2 Scope and Sequence

Ongoing Reinforcement/Enrichment

- Tell and write time from the nearest hour to the nearest 5 minutes
- Identify and count various mixed coins and currency
- Place value tens and ones
- Decipher graphs, bar graphs, tally graphs, picture graphs

First Marking Period

Unit 1: Numbers to 20 and Data

Add and subtract within 20: (2.OA.2)

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

Work with equal groups of objects to gain foundations for multiplication: (2.OA.3) (2.OA.4)

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

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.

Understand concepts of data: (2.DL.A.1) (2.DL.A.2)

1. Understand that people collect data to answer questions. Understand that data can vary.

2. Identify what could count as data (e.g., visuals, sounds, numbers).

Represent and interpret data: (2.DL.B.4)

4. 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 problems using information presented in a bar graph.

Unit 2: Place Value

Understand place value: (2.NBT.1) (2NBT.3)

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:

- 100 can be thought of as a bundle of ten tens — called a "hundred."
- 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).

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

Second Marking Period

Understand place value: (2.NBT.2)

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

Use place value understanding and properties of operations to add and subtract: (2.NBT.8)

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

Understand place value: (2.NBT.4)

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.

Unit 3: Money and Time

Work with time and money: (2.M.8) (2.M.8)

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?

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

Third Marking Period

Unit 4: Two-Digit Addition and Subtraction

Use place value understanding and properties of operations to add and subtract: (2.NBT.5) (2.NBT.6) (2.NBT.9) (2.NBT.7)

5. With accuracy and efficiency add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.

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

9. Explain why addition and subtraction strategies work, using place value and the properties of operations. (Clarification: Explanations should be supported by drawing or objects.)

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.

Represent and solve problems involving addition and subtraction: (2.OA.1)

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.

Unit 5: Three-Digit Addition and Subtraction

Use place value understanding and properties of operations to add and subtract: (2.NBT.7)

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.

Fourth Marking Period

Use place value understanding and properties of operations to add and subtract: (2.NBT.7) (2.NBT.9)

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.

9. Explain why addition and subtraction strategies work, using place value and the properties of operations. (Clarification: Explanations should be supported by drawing or objects.)

Unit 6: Measurement: Length

Measure and estimate lengths in standard units: (2.M.3) (2.M.1)

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

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

Represent and interpret data: (2.DL.B.3)

3. 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.

Measure and estimate lengths in standard units: (2.M.2)

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.

Relate addition and subtraction to length: (2.M.6)

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.

Relate addition and subtraction to length: (2.M.5)

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.

Relate addition and subtraction to length: (2.M.6)

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.

Measure and estimate lengths in standard units: (2.M.4)

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

Unit 7: Geometry and Fractions

Reason with shapes and their attributes: (2.G.1), (2.G.2), (2.G.3)

1. Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes. (Clarification: sizes are compared directly or visually, not compared by measuring)

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

Work with equal groups of objects to gain foundations for multiplication: (2.OA.4)

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.

Reason with shapes and their attributes: (2.G.3)

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.

<table>
<tr><th colspan="2">2nd Grade Unit 1</th></tr>
<tr><td>Domain: Operations & Algebraic Thinking, Data Literacy</td><td>Marking Period: 1</td></tr>
<tr><td colspan="2">Cluster Heading: Add and subtract within 20, Work with equal groups of objects to gain foundations for multiplication, Represent and interpret data</td></tr>
<tr><td colspan="2">Overview of Unit: To fluently add & subtract within 20 using mental math, determine whether a group of objects has an odd or even number, use addition to find the total number of objects in a rectangular array, draw a picture graph and a bar graph to represent data.</td></tr>
<tr><th colspan="2">Learning Targets—Modules 1-3 and Standards</th></tr>
<tr><td colspan="2">Modules: Fluency for Addition and Subtraction Within 20, Equal Groups, Data

Standards: 2.OA.2, 2.OA.3, 2.OA.4, 2.DL.A.1, 1.DL.A.2, 2.DL.4.B.4
2.OA.2. With accuracy and efficiency, add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.
2.OA.3. Determine whether a group of objects (up to 20) has an odd and even number of members, e.g., by pairing objects or counting them by 2’s; write an equation to express an even number as a sum of two equal addends.
2.OA.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.
2.DL.A.1. Understand that people collect data to answer questions. Understand that data can vary.
2.DL.A.2. Identify what could count as data (e.g., visuals, sounds, numbers).
2.DL.B.4. 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 problems using information presented in a bar graph.</td></tr>
<tr><th>Essential Questions</th><th>Enduring Understandings</th></tr>
</table>

• Identify what you are looking for. What operation will you use? • How can the doubles fact help you find the sum? • Why did you add 1 instead of subtracting 1 to find the sum? • How does changing the order of the addends affect the sum? • Might there be two possible addition facts that can be used to solve a problem? • What do the elements of the bar model represent? How are they related? • How do you know whether to use an addition or a subtraction fact from the bar model? • How does a related addition fact help you solve a subtraction problem? • After making a ten, how can you tell the total number of shirts? • How do you use counters to show that the number is even? • How many classmates chose marbles as their favorite object to collect? • If 4 more classmates chose ball, how many classmates would have chosen ball?	• Children will use doubles facts as a strategy for finding sums for near doubles facts. • Children will recall sums for basic facts using strategies and properties. • Children will use the inverse relationship of addition and subtraction to recall basic facts. • Children will recall differences for basic facts using mental strategies. • Children will recall sums for addition facts using the make ten strategy. • Children will find differences on a number line to develop the mental strategy of decomposing to simplify facts. • Children will find sums of three addends by applying the commutative and Associative Properties of Addition. • Children will classify numbers up to 20 as even or odd. • Children will write equations with equal addends to represent even numbers. • Children will write equations using repeated addition to find the total number of objects in arrays. • Children will collect data in a survey and record that data. • Children will interpret data and use that information to solve problems.

Evidence of Learning

Formative Assessment:

- Mid-Module Checkpoints

Summative Assessment:

- Module Review/Tests
- Module Tests

Differentiation/Customizing Learning (strategies):

- Work with teacher in small group using intervention activities
- Use math centers
- Use different manipulatives to model problems

Accommodations for ELL:

- Frequent pauses for understanding and focus
- Develop an understanding of key vocabulary
- Use of drawings, maps and graphs
- Engaging dialogue and discussion
- Assistance from ESL teacher in a small group setting
- Use of manipulatives
- Tools (rulers, measuring cups, etc.)
- Multi-leveled cooperative learning groups
- Envision 2.0 Resources: online Spanish resources and other RTI activities/procedures for differentiated learning.

Accommodations for Special Education:

- Frequent pauses for understanding and focus
- Develop an understanding of key vocabulary
- Use of drawings, maps and graphs
- Engaging dialogue and discussion
- Use of manipulatives
- Tools (rulers, measuring cups, etc.)
- Multi-leveled cooperative learning groups
- Assistance from Special Education teacher in a small group setting
- Envision 2.0 Resources: online resources and other RTI activities/procedures for differentiated learning.
- Refer to student IEP
- Accommodations for At-Risk Students:
- Frequent pauses for understanding and focus
- Develop an understanding of key vocabulary
- Use of drawings, maps and graphs
- Engaging dialogue and discussion
- Use of manipulatives
- Tools (rulers, measuring cups, etc.)
- Multi-leveled cooperative learning groups
- Assistance from Special Education teacher in a small group setting
- Envision 2.0 Resources: online resources and other RTI activities/procedures for differentiated learning.

Accommodations for Enrichment (G &T):

- Extension activities
- Independent practice in small groups
- Internet activities
- Envision 2.0: Each lesson offers Advanced activities for Differentiated instruction

Materials and Learning Plan

Materials:

- Two-color counters
- MathBoard
- Connecting cubes
- Ten frame
- Number line
- Square tiles
- Online resources
- Text and workbooks
- Standards Practice Book

Learning Plan:
Into Math Series

- Module 1, Lessons 1-7
- Module 2, Lessons 1-5
- Module 3, Lessons 1-5

Interdisciplinary Connections

- L.RF.2.4. Read with sufficient accuracy and fluency to support comprehension.
  A. Read grade-level text with purpose and understanding.
  B. Read grade-level text orally with accuracy, appropriate rate, and expression.
- L.KL.2.1. Use knowledge of language and its conventions when writing, speaking, reading, or listening.
  A. Use words and phrases acquired through conversations, reading and being read to, and responding to texts.
- SOC.6.1.2.CivicsPI.4 [Performance Expectation] - Explain how all people, not just official leaders, play important roles in a community.
- SOC.6.1.2.EconEM.2 [*Performance Expectation*] - Describe the goods and services that individuals and businesses in the local community produce and those that are produced in other communities.
- 2-PS1-3 [*Performance Expectation*] - Make observations to construct an evidence-based account of how an object made of a small set of pieces can be disassembled and made into a new object.
- 2-LS4-1 [*Performance Expectation*] - Make observations of plants and animals to compare the diversity of life in different habitats.

Integration of 21st Century Skills: Career Readiness, Life Literacy, and Key Skills

☐**9.1 Personal Financial Literacy**
Financial Health: *Financial Psychology, Civic Financial Responsibility*
Financial Landscape: *Financial Institutions, Economic & Government Influences*
Money Management: *Planning & Budgeting, Risk Management & Insurance, Credit and Debit Management, Credit Profile*

☒**9.2 Career Awareness and Planning**

☒**9.4 Life Literacies and Key Skills**
Creativity and Innovation
Critical Thinking and Problem Solving
Global and Cultural Awareness

Effective Integration of Technology: Computer Science and Design Thinking & Life Literacies and Key Skills

☐**8.1 Computer Science**
☐**8.2 Design Thinking**
☒**9.4 Life Literacies and Key Skills**
Information and Media Literacy
Technology Literacy

Effective Integration of Media Arts: Visual and Performing Arts Performance Standards

☐**1.2 Media Arts**
Creating - Conceive, Develop, and/or Construct
Performing - Integrate, Practice, and/or Present
Responding - Perceive, Evaluate, and/or Interpret
Connecting - Synthesize and/or Relate

2nd Grade Unit 2	
Domain: Number and Operations in Base Ten	**Marking Periods: 1 and 2**
Cluster Heading: Understand place value, use place value understanding and properties of operations to add and subtract.	
Overview of Unit: Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones, read and write numbers to 1000 using base-ten numerals, number names, and expanded form, count within 1000; skip-count by 5s, 10s, and 100s, mentally add 10 or 100 to a given number, and mentally subtract 10 or 100 from a given number, compare two three-digit numbers.	
Learning Targets—Modules 4-6 and Standards	
Modules: Understand Place Value, Read Write, and Show Numbers to 1,000, Use Place Value	
Standards: 2.NBT.1, 2.NBT.3, 2.NBT.2, 2.NBT.B.8, 2.NBT.4	

- 2.NBT.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:
    - 100 can be thought of as a bundle of ten tens — called a “hundred.”
    - 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.3. Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.
- 2.NBT.2. Count within 1000; skip-count by 5s, 10s, and 100s.
- 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.4. Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, < symbols to record the results of comparisons.

Essential Questions	Enduring Understandings
● How many 10s are in a hundred? ● What tools can you use to determine hundreds, tens, and ones? ● How can you name a three-digit number? ● How can a visual or concrete model help you solve a problem? ● What does the number 2 mean in 321? ● What if the number was 331? How do you write 331 in expanded form? ● If there were 592 boxes, what would the name of the number be? ● When counting by fives, what are the two next numbers after 30? ● Which digit changes when you create numbers that are 10 more and 10 less? Why? ● How can you compare two numbers using base-ten blocks? ● What are the symbols >, =, and < when comparing numbers?	● Children will understand that each group of 10 is equivalent to 1 hundred ● Children will write three-digit numbers that are represented by groups of tens and use concrete and visual models to represent the number. ● Children will use place value to describe the values of digits in numbers to 1,000. ● Children will write three-digit numbers in expanded form, using number names, and in standard form. ● Children will extend counting sequences within 1,000, counting by 1s, 5s, 10s, and 100s. ● Children will identify 10 more, 10 less, 100 more, or 100 less than a given number. ● Children will extend number patterns counting by tens or hundreds. ● Children will solve problems involving number comparisons by using concrete and visual models. ● Children will compare three-digit numbers using >, =, and < symbols.

Evidence of Learning

Formative Assessment:

- Mid- Module Checkpoints

Summative Assessment:

- Module Review/Tests
- Module Tests

Differentiation/Customizing Learning (strategies):

- Work with teacher in small group using intervention activities
- Use math centers
- Use different manipulatives to model problems

Accommodations for ELL:

- Frequent pauses for understanding and focus
- Develop an understanding of key vocabulary
- Use of drawings, maps and graphs
- Engaging dialogue and discussion
- Assistance from ESL teacher in a small group setting
- Use of manipulatives
- Tools (rulers, measuring cups, etc.)
- Multi-leveled cooperative learning groups
- Envision 2.0 Resources: online Spanish resources and other RTI activities/procedures for differentiated learning.

Accommodations for Special Education:

- Frequent pauses for understanding and focus
- Develop an understanding of key vocabulary
- Use of drawings, maps and graphs
- Engaging dialogue and discussion
- Use of manipulatives
- Tools (rulers, measuring cups, etc.)
- Multi-leveled cooperative learning groups
- Assistance from Special Education teacher in a small group setting
- Envision 2.0 Resources: online resources and other RTI activities/procedures for differentiated learning.
- Refer to student IEP
- Accommodations for At-Risk Students:
- Frequent pauses for understanding and focus
- Develop an understanding of key vocabulary
- Use of drawings, maps and graphs
- Engaging dialogue and discussion
- Use of manipulatives
- Tools (rulers, measuring cups, etc.)
- Multi-leveled cooperative learning groups
- Assistance from Special Education teacher in a small group setting
- Envision 2.0 Resources: online resources and other RTI activities/procedures for differentiated learning.

Accommodations for Enrichment (G &T):

- Extension activities
- Independent practice in small groups
- Internet activities
- Envision 2.0: Each lesson offers Advanced activities for Differentiated instruction

Materials and Learning Plan

Materials:

- Number line
- Base-ten blocks
- Connecting cubes
- MathBoards
- Counters
- Place-value chart
- Three-digit number cards
- Symbol cards

Learning Plan:

Into Math Series

- Module 4, Lessons 1-5
- Module 5, Lessons 1-5
- Module 6, Lessons 1-5

Interdisciplinary Connections

- L.RF.2.4. Read with sufficient accuracy and fluency to support comprehension.
  C. Read grade-level text with purpose and understanding.
  D. Read grade-level text orally with accuracy, appropriate rate, and expression.
- L.KL.2.1. Use knowledge of language and its conventions when writing, speaking, reading, or listening.
  B. Use words and phrases acquired through conversations, reading and being read to, and responding to texts.
- SOC.6.1.2.CivicsCM.2 [*Performance Expectation*] - Use examples from a variety of sources to describe how certain characteristics can help individuals collaborate and solve problems (e.g., open-mindedness, compassion, civility, persistence).
- SOC.6.1.2.CivicsPI.2 [*Performance Expectation*] - Investigate the importance of services provided by the local government to meet the needs and ensure the safety of community members.
- 2-ESS2-3.ESS2.C.1 [*Disciplinary Core Idea*] - Water is found in the ocean, rivers, lakes, and ponds. Water exists as solid ice and in liquid form.

- 2-LS4-1.LS4.D.1 [*Disciplinary Core Idea*] - There are many different kinds of living things in any area, and they exist in different places on land and in water.

Integration of 21st Century Skills: Career Readiness, Life Literacy, and Key Skills

☐**9.1 Personal Financial Literacy**
Financial Health: *Financial Psychology, Civic Financial Responsibility*
Financial Landscape: *Financial Institutions, Economic & Government Influences*
Money Management: *Planning & Budgeting, Risk Management & Insurance, Credit and Debit Management, Credit Profile*

☒**9.2 Career Awareness and Planning**

☐**9.4 Life Literacies and Key Skills**
Creativity and Innovation
Critical Thinking and Problem Solving
Global and Cultural Awareness

Effective Integration of Technology: Computer Science and Design Thinking **&** Life Literacies and Key Skills

☐**8.1 Computer Science**

☐**8.2 Design Thinking**

☒**9.4 Life Literacies and Key Skills**
Digital Citizenship
Information and Media Literacy
Technology Literacy

Effective Integration of Media Arts: Visual and Performing Arts Performance Standards

☐**1.2 Media Arts**
Creating - Conceive, Develop, and/or Construct
Performing - Integrate, Practice, and/or Present
Responding - Perceive, Evaluate, and/or Interpret
Connecting - Synthesize and/or Relate

2nd Grade Unit 3	
Domain: Measurement	**Marking Period:** 2

Cluster Heading: Work with time and money.

Overview of Unit: Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, tell and write time to the nearest five minutes.

Learning Targets—Modules 7-9 and Standards

Modules: Coins, Dollar Amounts, Time

Standards: 2.M.C.8, 2.M.C.7

- 2.M.C.8. Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and ¢ symbols appropriately.
- 2.M.C.7. Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.

Essential Questions	Enduring Understandings
• How do you find the total value of a combination of coins? • What is the value of each coin: penny, nickel, dime, quarter? • When finding the total value of coins, in what order do you count the coins? • How many dimes does it take to make one dollar? • Why is it easier to count the bills when they are in order from greatest to least? • How many minutes are in 1 hour? • To which hand does the minute hand point to show 2:25? How do you know? • How many minutes after the hour is a time that is quarter past? • Give at least two different ways to write 4:30. • What is 12:00 at night called?	• Children will explore the relationship between place value and coins. • Children will identify and find the total value of combinations of quarters, dimes, nickels, and pennies. • Children will order combinations of coins by value and then find the total value. • Children will show the value of one dollar in different ways using coins. • Children will use strategies to solve word problems involving money. • Children will tell and write time from analog and digital clocks to the nearest five minutes. • Practice writing and telling time, using a.m and p.m.

Evidence of Learning

Formative Assessment:

- Mid- Module Checkpoints

Summative Assessment:

- Module Review/Tests
- Module Tests

Differentiation/Customizing Learning (strategies):

- Work with teacher in small group using intervention activities
- Use math centers
- Use different manipulatives to model problems

Accommodations for ELL:

- Frequent pauses for understanding and focus
- Develop an understanding of key vocabulary
- Use of drawings, maps and graphs
- Engaging dialogue and discussion
- Assistance from ESL teacher in a small group setting
- Use of manipulatives
- Tools (rulers, measuring cups, etc.)
- Multi-leveled cooperative learning groups
- Envision 2.0 Resources: online Spanish resources and other RTI activities/procedures for differentiated learning.

Accommodations for Special Education:

- Frequent pauses for understanding and focus
- Develop an understanding of key vocabulary
- Use of drawings, maps and graphs
- Engaging dialogue and discussion
- Use of manipulatives
- Tools (rulers, measuring cups, etc.)
- Multi-leveled cooperative learning groups
- Assistance from Special Education teacher in a small group setting
- Envision 2.0 Resources: online resources and other RTI activities/procedures for differentiated learning.
- Refer to student IEP
- Accommodations for At-Risk Students:
- Frequent pauses for understanding and focus
- Develop an understanding of key vocabulary
- Use of drawings, maps and graphs
- Engaging dialogue and discussion
- Use of manipulatives
- Tools (rulers, measuring cups, etc.)
- Multi-leveled cooperative learning groups
- Assistance from Special Education teacher in a small group setting
- Envision 2.0 Resources: online resources and other RTI activities/procedures for differentiated learning.

Accommodations for Enrichment (G &T):

- Extension activities
- Independent practice in small groups
- Internet activities

- Envision 2.0: Each lesson offers Advanced activities for Differentiated instruction

Materials and Learning Plan

Materials:

- Base-ten blocks
- Play coins (quarters, dimes, nickels, pennies)
- MathBoard
- Play bills
- Analog clocks with movable hands

Learning Plan:

Into Math Series

- Module 7, Lessons1-4
- Module 8, Lessons 1-3
- Module 9, Lessons 1-4

Interdisciplinary Connections

- L.RF.2.4. Read with sufficient accuracy and fluency to support comprehension.
  E. Read grade-level text with purpose and understanding.
  F. Read grade-level text orally with accuracy, appropriate rate, and expression.
- L.KL.2.1. Use knowledge of language and its conventions when writing, speaking, reading, or listening.
  C. Use words and phrases acquired through conversations, reading and being read to, and responding to texts.
- SOC.6.1.2.CivicsPD.1 [*Performance Expectation*] - Engage in discussions effectively by asking questions, considering facts, listening to the ideas of others, and sharing opinions.
- SOC.6.1.2.EconET.1 [*Performance Expectation*] - Explain the difference between needs and wants.
- SOC.6.1.2.EconEM.1 [*Performance Expectation*] - Describe the skills and knowledge required to produce specific goods and services.
- 2-PS1-1 [*Performance Expectation*] - Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties.
- 2-PS1-1.1.1 [*Crosscutting Concept*] - Patterns in the natural and human designed world can be observed.

Integration of 21st Century Skills: Career Readiness, Life Literacy, and Key Skills

☐**9.1 Personal Financial Literacy**

Financial Health: *Financial Psychology, Civic Financial Responsibility*

Financial Landscape: *Financial Institutions, Economic & Government*

Influences
Money Management: *Planning & Budgeting, Risk Management & Insurance, Credit and Debit Management, Credit Profile*

☒**9.2 Career Awareness and Planning**

☒**9.4 Life Literacies and Key Skills**

Creativity and Innovation
Critical Thinking and Problem Solving
Global and Cultural Awareness

Effective Integration of Technology: Computer Science and Design Thinking & Life Literacies and Key Skills

☒**8.1 Computer Science**

☒**8.2 Design Thinking**

☐**9.4 Life Literacies and Key Skills**

Digital Citizenship
Information and Media Literacy
Technology Literacy

Effective Integration of Media Arts: Visual and Performing Arts Performance Standards

☐**1.2 Media Arts**

Creating - Conceive, Develop, and/or Construct
Performing - Integrate, Practice, and/or Present
Responding - Perceive, Evaluate, and/or Interpret
Connecting - Synthesize and/or Relate

2nd Grade Unit 4	
Domain: Operations and Algebraic Thinking, Number and Operation in Base Ten	**Marking Period: 3**
Cluster Heading: Represent and solve problems involving addition and subtraction, Use place value understanding and properties of operations to add and subtract.	
Overview of Unit: Use strategies to add and subtract within 100, add up to four two-digit numbers, explain why addition and subtraction strategies work, use strategies to add and subtract within 1000, use addition and subtraction to solve one-and two-step word problems.	
Learning Targets—Modules 10-15 and Standards	

Modules: Addition and Subtraction Counting Strategies, Addition and Subtraction Grouping Strategies, Represent and Record Addition and Subtraction, Develop Addition and Subtraction Fluency, Algebra, Addition and Subtraction Word Problems.

Standards: 2.NBT.B.5, 2.NBT.B.6, 2.NBT.B.9, 2.NBT.B.7

- 2.NBT.B.5. With accuracy and efficiency 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.
- 2.NBT.B.9. Explain why addition and subtraction strategies work, using place value and the properties of operations. (Clarification: Explanations should be supported by drawing or objects.)
- 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.

Essential Questions	Enduring Understandings
• How do you know which way to count on the hundred chart? • How do you know how many times you need to count by ones on a number line? Would your answer still be the same if you counted by ten first before you counted by ones? • How do you know how many more ones you need to make the next ten. • How do you know how many ones you need to subtract from 24 to get to 20? • Why do you need to regroup to show the sum? • Explain how to regroup to make enough ones to subtract from. Why is the difference still correct? • Do you need to regroup to solve this problem? Explain. • How can you rewrite the addition to solve the problem? • How can you rewrite the subtraction to solve the problem?	• Children will use a hundred chart as a tool for two-digit addition and subtraction. • Children will use a number line as a tool for two-digit addition and subtraction. • Children will find a sum by decomposing a one-digit addend to make a two-digit addend a multiple of 10. • Children will find a difference by decomposing a one-digit subtrahend to subtract it from a two-digit number. • Children will represent two-digit addition with regrouping ones as tens using visual models. • Children will represent two-digit subtraction with regrouping 1 ten as 10 ones. • Children will use place-value charts to represent and record two-digit addition.

• How can you use the number line to find the difference? • How do you decide which number to add first? • What part of the addition equation do the two bars represent? • What strategy did you use to find the sum of 20 and 10? • How did you decide which operation to use to solve the problem?	• Children will understand how to record two-digit addition and two-digit subtraction with and without regrouping. • Children will rewrite addition and subtraction problems given in horizontal form as vertical addition algorithms and find the sum. • Children will use the relationship between addition and subtraction to find the difference. • Children will use strategies of addition to find the sum of 3 two-digit numbers. • Children will use bar models to represent and solve addition and subtraction problems. • Children will use drawings to write equations to represent addition and subtraction situations. • Children will represent addition and subtraction situations with equations using a symbol for the unknown. • Children will evaluate word problems to decide what operations to use to solve multistep problems.

Evidence of Learning

Formative Assessment:

- Mid-Module Checkpoints

Summative Assessment:

- Module Review/Tests
- Module Tests

Differentiation/Customizing Learning (strategies):

- Work with teacher in small group using intervention activities
- Use math centers
- Use different manipulatives to model problems

Accommodations for ELL:

- Frequent pauses for understanding and focus
- Develop an understanding of key vocabulary
- Use of drawings, maps and graphs

- Engaging dialogue and discussion
- Assistance from ESL teacher in a small group setting
- Use of manipulatives
- Tools (rulers, measuring cups, etc.)
- Multi-leveled cooperative learning groups
- Envision 2.0 Resources: online Spanish resources and other RTI activities/procedures for differentiated learning.

Accommodations for Special Education:

- Frequent pauses for understanding and focus
- Develop an understanding of key vocabulary
- Use of drawings, maps and graphs
- Engaging dialogue and discussion
- Use of manipulatives
- Tools (rulers, measuring cups, etc.)
- Multi-leveled cooperative learning groups
- Assistance from Special Education teacher in a small group setting
- Envision 2.0 Resources: online resources and other RTI activities/procedures for differentiated learning.
- Refer to student IEP
- Accommodations for At-Risk Students:
- Frequent pauses for understanding and focus
- Develop an understanding of key vocabulary
- Use of drawings, maps and graphs
- Engaging dialogue and discussion
- Use of manipulatives
- Tools (rulers, measuring cups, etc.)
- Multi-leveled cooperative learning groups
- Assistance from Special Education teacher in a small group setting
- Envision 2.0 Resources: online resources and other RTI activities/procedures for differentiated learning.

Accommodations for Enrichment (G &T):

- Extension activities
- Independent practice in small groups
- Internet activities
- Envision 2.0: Each lesson offers Advanced activities for Differentiated instruction

Materials and Learning Plan

Materials:

- Math Board
- Base-ten blocks
- Open Number Line (Teacher Resource Master)
- Two-color counters
- Connecting cubes

- Number cube
- Number cards 1-100 (Teacher Resource Master)
- Place-value chart
- Number line

Learning Plan:
Into Math Series

- Module 10, Lessons 1-3
- Module 11, Lessons 1-5
- Module 12, Lessons 1-6
- Module 13, Lessons 1-5
- Module 14, Lessons 1-4
- Module 15, Lessons 1-3

Interdisciplinary Connections

- L.RF.2.4. Read with sufficient accuracy and fluency to support comprehension.
  G. Read grade-level text with purpose and understanding.
  H. Read grade-level text orally with accuracy, appropriate rate, and expression.
- L.KL.2.1. Use knowledge of language and its conventions when writing, speaking, reading, or listening.
  D. Use words and phrases acquired through conversations, reading and being read to, and responding to texts.
- SOC.6.1.2.CivicsCM.1 [*Performance Expectation*] - Describe why it is important that individuals assume personal and civic responsibilities in a democratic society.
- SOC.6.1.2.CivicsPI.4 [*Performance Expectation*] - Explain how all people, not just official leaders, play important roles in a community.
- 2-LS4-1 [*Performance Expectation*] - Make observations of plants and animals to compare the diversity of life in different habitats.
- 2-LS4-1.LS4.D.1 [*Disciplinary Core Idea*] - There are many different kinds of living things in any area, and they exist in different places on land and in water.

Integration of 21st Century Skills: Career Readiness, Life Literacy, and Key Skills

☐**9.1 Personal Financial Literacy**
Financial Health: *Financial Psychology, Civic Financial Responsibility*
Financial Landscape: *Financial Institutions, Economic & Government Influences*
Money Management: *Planning & Budgeting, Risk Management & Insurance, Credit and Debit Management, Credit Profile*

☒**9.2 Career Awareness and Planning**

☒**9.4 Life Literacies and Key Skills**
Creativity and Innovation
Critical Thinking and Problem Solving

Global and Cultural Awareness

Effective Integration of Technology: Computer Science and Design Thinking & Life Literacies and Key Skills

☒**8.1 Computer Science**
☐**8.2 Design Thinking**
☐**9.4 Life Literacies and Key Skills**
Digital Citizenship
Information and Media Literacy
Technology Literacy

Effective Integration of Media Arts: Visual and Performing Arts Performance Standards

☐**1.2 Media Arts**
Creating - Conceive, Develop, and/or Construct
Performing - Integrate, Practice, and/or Present
Responding - Perceive, Evaluate, and/or Interpret
Connecting - Synthesize and/or Relate

2nd Grade Unit 5

Domain: Number and Operation in Base Ten	**Marking Period: 3 and 4**

Cluster Heading: Use place value understanding and properties of operations to add and subtract.

Overview of Unit: Add and subtract within 1,000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.

Learning Targets—Modules 16-17 and Standards

Modules: Three-Digit Addition, Three-Digit Subtraction

Standards: 2.NBT.B.7, 2.NBT.B. 9

- 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.9. Explain why addition and subtraction strategies work, using place value and the properties of operations. (Clarification: Explanations should be supported by drawing or objects.)

Essential Questions	Enduring Understandings
● How many tens are in 321? ● How will you find the total number of hundreds, tens, and ones/ ● What would you do if you wanted to add 139 to 257? ● How many ones must there be in order to regroup for a ten? ● How can you use the concrete model to subtract? ● Why do you need to regroup to show the difference? ● Why is it necessary to regroup twice?	● Children will draw quick pictures to represent three-digit addition ● Children will apply place-value concepts when decomposing numbers to solve three-digit addition problems. ● Children will record three-digit addition using the standard algorithm with possible regrouping of ones or tens. ● Children will solve problems involving three-digit subtraction by building concrete and visual models. ● Children will record three-digit subtraction using the standard algorithm with possible regrouping of hundreds. ● Children will regroup hundred and tens to subtract three-digit numbers. ● Children will show regrouping for subtraction with three-digit numbers with zeros. ● Children will record three-digit addition and subtraction using the standard algorithm with possible regrouping in all place-value positions.

Evidence of Learning

Formative Assessment:

- Mid- Module Checkpoints

Summative Assessment:

- Module Review/Tests
- Module Tests

Differentiation/Customizing Learning (strategies):

- Work with teacher in small group using intervention activities

- Use math centers
- Use different manipulatives to model problems

Accommodations for ELL:

- Frequent pauses for understanding and focus
- Develop an understanding of key vocabulary
- Use of drawings, maps and graphs
- Engaging dialogue and discussion
- Assistance from ESL teacher in a small group setting
- Use of manipulatives
- Tools (rulers, measuring cups, etc.)
- Multi-leveled cooperative learning groups
- Envision 2.0 Resources: online Spanish resources and other RTI activities/procedures for differentiated learning.

Accommodations for Special Education:

- Frequent pauses for understanding and focus
- Develop an understanding of key vocabulary
- Use of drawings, maps and graphs
- Engaging dialogue and discussion
- Use of manipulatives
- Tools (rulers, measuring cups, etc.)
- Multi-leveled cooperative learning groups
- Assistance from Special Education teacher in a small group setting
- Envision 2.0 Resources: online resources and other RTI activities/procedures for differentiated learning.
- Refer to student IEP
- Accommodations for At-Risk Students:
- Frequent pauses for understanding and focus
- Develop an understanding of key vocabulary
- Use of drawings, maps and graphs
- Engaging dialogue and discussion
- Use of manipulatives
- Tools (rulers, measuring cups, etc.)
- Multi-leveled cooperative learning groups
- Assistance from Special Education teacher in a small group setting
- Envision 2.0 Resources: online resources and other RTI activities/procedures for differentiated learning.

Accommodations for Enrichment (G &T):

- Extension activities
- Independent practice in small groups
- Internet activities
- Envision 2.0: Each lesson offers Advanced activities for Differentiated instruction

Materials and Learning Plan

Materials:

- Math Board
- Base-ten blocks
- Place-value chart

Learning Plan:

Into Math Series

- Module 16, Lessons 1-4
- Module 17, Lessons 1-6

Interdisciplinary Connections

- L.RF.2.4. Read with sufficient accuracy and fluency to support comprehension.
  - I. Read grade-level text with purpose and understanding.
  - J. Read grade-level text orally with accuracy, appropriate rate, and expression.
- L.KL.2.1. Use knowledge of language and its conventions when writing, speaking, reading, or listening.
  - E. Use words and phrases acquired through conversations, reading and being read to, and responding to texts.
- SOC.6.1.2.CivicsPI.5 [Performance Expectation] - Describe how communities work to accomplish common tasks, establish responsibilities, and fulfill roles of authority.
- SOC.6.1.2.CivicsPD.1 [Performance Expectation] - Engage in discussions effectively by asking questions, considering facts, listening to the ideas of others, and sharing opinions.
- 2-LS4-1 [Performance Expectation] - Make observations of plants and animals to compare the diversity of life in different habitats.
- 2-LS4-1.3.1 [Practice] - Make observations (firsthand or from media) to collect data which can be used to make comparisons.

Integration of 21st Century Skills: Career Readiness, Life Literacy, and Key Skills

☐**9.1 Personal Financial Literacy**

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☒**9.2 Career Awareness and Planning**

☐**9.4 Life Literacies and Key Skills**

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Global and Cultural Awareness

Effective Integration of Technology: Computer Science and Design Thinking & Life Literacies and Key Skills

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☒**8.2 Design Thinking**

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Effective Integration of Media Arts: Visual and Performing Arts Performance Standards

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2nd Grade Unit 6	
Domain: Measurement, Data Literacy	**Marking Period: 4**
Cluster Heading: Measure and estimate length in standard units, Relate addition and subtraction to length, Represent and Interpret Data	
Overview of Unit: Estimate lengths using inches, feet, centimeters, and meters, measure the length of an object by selecting appropriate tools, use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units.	
Learning Targets—Modules 18-20 and Standards	

Modules: Length in Inches, Feet, and Yards, Length in Centimeters and Meters, Relate Addition and Subtraction to Length

Standards: 2.M.A.3, 2.M.A.1, 2.DL.B.3, 2.M.A.2, 2.M.B.6, 2.M.B.5, 2.M.A.4.

- 2.M.A.3. Estimate lengths using units of inches, feet, centimeters, and meters.
- 2.M.A.1. Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.
- 2.DL.B.3. 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.M.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.M.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.M.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.M.A.4. Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.

Essential Questions	**Enduring Understandings**
● How do you draw tiles beneath an object to estimate length in inches? ● What is the first step you take when measuring the length of an object? ● Why would you want to show measurement data on a line plot? ● How many inches are equal to 1 foot? ● How can you use a ruler to estimate lengths that are about 1 foot? ● Why does an estimate have the word *about*? ● Which measuring tool is best to measure the distance around a balloon? ● How do you use unit cubes to measure length? ● How long is a meter stick? ● If a wall is 5 meters long, how many centimeters long is it? ● How can you show cutting off 14 inches from 35 inches on a yardstick?	● Children will estimate the length of objects by mentally partitioning the lengths into inches and then into feet. ● Children will measure the lengths of objects to the nearest inch using an inch ruler. ● Children will measure the lengths of objects and use a line plot to display the measurement data. ● Children will estimate the lengths of objects by mentally partitioning the lengths into 3-foot sections (yards). ● Children will select appropriate tools for measuring different lengths. ● Children will estimate lengths of objects in centimeters by comparing them to known lengths. ● Children will measure lengths of objects to the nearest centimeter using a centimeter ruler.

• How can you show how long each box is by using a number line? • How can you show that one worm is 9 centimeters longer than a 12-centimeter worm? • What is the difference in length between the pencil and the crayon? How do you know?	• Children will estimate the lengths of objects in meters. • Children will explore the relationship between inch units on an inch ruler or a yardstick and units on a number line and use an inch ruler or a yardstick to solve addition and subtraction problems. • Children will solve addition and subtraction problems involving the lengths of objects in centimeters by using a number line diagram. • Children will measure and then find the difference in the centimeter lengths of two objects.

Evidence of Learning

Formative Assessment:

- Mid- Module Checkpoints

Summative Assessment:

- Module Review/Tests
- Module Tests

Differentiation/Customizing Learning (strategies):

- Work with teacher in small group using intervention activities
- Use math centers
- Use different manipulatives to model problems

Accommodations for ELL:

- Frequent pauses for understanding and focus
- Develop an understanding of key vocabulary
- Use of drawings, maps and graphs
- Engaging dialogue and discussion
- Assistance from ESL teacher in a small group setting
- Use of manipulatives
- Tools (rulers, measuring cups, etc.)
- Multi-leveled cooperative learning groups
- Envision 2.0 Resources: online Spanish resources and other RTI activities/procedures for differentiated learning.

Accommodations for Special Education:

- Frequent pauses for understanding and focus
- Develop an understanding of key vocabulary
- Use of drawings, maps and graphs
- Engaging dialogue and discussion
- Use of manipulatives
- Tools (rulers, measuring cups, etc.)

- Multi-leveled cooperative learning groups
- Assistance from Special Education teacher in a small group setting
- Envision 2.0 Resources: online resources and other RTI activities/procedures for differentiated learning.
- Refer to student IEP
- Accommodations for At-Risk Students:
- Frequent pauses for understanding and focus
- Develop an understanding of key vocabulary
- Use of drawings, maps and graphs
- Engaging dialogue and discussion
- Use of manipulatives
- Tools (rulers, measuring cups, etc.)
- Multi-leveled cooperative learning groups
- Assistance from Special Education teacher in a small group setting
- Envision 2.0 Resources: online resources and other RTI activities/procedures for differentiated learning.

Accommodations for Enrichment (G &T):

- Extension activities
- Independent practice in small groups
- Internet activities
- Envision 2.0: Each lesson offers Advanced activities for Differentiated instruction

Materials and Learning Plan

Materials:

- Math Board
- Square tiles
- Inch ruler
- Chenille sticks
- Yardstick
- String
- Unit cubes
- Centimeter ruler
- Meter Stick
- Base-ten blocks
- Pocket folders

Learning Plan:

Into Math Series

- Module 18, Lessons 1-8
- Module 19, Lesson 1-4
- Module 20, Lesson 1-5

Interdisciplinary Connections

- L.RF.2.4. Read with sufficient accuracy and fluency to support comprehension.
  K. Read grade-level text with purpose and understanding.

L. Read grade-level text orally with accuracy, appropriate rate, and expression.

- L.KL.2.1. Use knowledge of language and its conventions when writing, speaking, reading, or listening.
  F. Use words and phrases acquired through conversations, reading and being read to, and responding to texts.
- SOC.6.1.2.EconEM.1 [*Performance Expectation*] - Describe the skills and knowledge required to produce specific goods and services.
- SOC.6.1.2.EconEM.2 [*Performance Expectation*] - Describe the goods and services that individuals and businesses in the local community produce and those that are produced in other communities.
- 2-PS1-2 [*Performance Expectation*] - Analyze data obtained from testing different materials to determine which materials have the properties that are best suited for an intended purpose.
- 2-PS1-2.2.1 [*Crosscutting Concept*] - Simple tests can be designed to gather evidence to support or refute student ideas about causes.
-

Integration of 21st Century Skills: Career Readiness, Life Literacy, and Key Skills

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Effective Integration of Media Arts: Visual and Performing Arts Performance Standards

☒**1.2 Media Arts**
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Performing - Integrate, Practice, and/or Present
Responding - Perceive, Evaluate, and/or Interpret

Connecting - Synthesize and/or Relate

2nd Grade Unit 7	
Domain: Geometry, Operations and Algebraic Thinking	**Marking Period: 4**
Cluster Heading: Reason with shapes and their attributes, Work with equal groups of objects to gain foundations for multiplication	
Overview of Unit: Recognize and draw shapes having specified attributes, partition a rectangle into rows and columns of same-size squares and count to find the total number of them, partition circles and rectangles into two, three, or four equal shares and describe the shares.	
Learning Targets—Modules 21-22 and Standards	
Modules: Two-and Three-Dimensional Shapes, Understand Fractions Standards: 2.G.A.1, 2.G.A.2, 2.G.A.3, 2.OA.C.4 ● 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. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes. (Clarification: sizes are compared directly or visually, not compared by measuring) ● 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.OA.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. ● 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.	
Essential Questions	**Enduring Understandings**
● What two-dimensional shape do you see when you look at the faces of a cube? ● How many sides and vertices does a triangle have? ● Which shape has more angles: a triangle or a quadrilateral?	● Children will identify and describe three-dimensional shapes according to the number of faces, edges, and vertices. ● Children will name three-, four-, five-, and six-sided shapes according to the number of sides and vertices.

● Which shapes have fewer than five sides? ● How do you find the total number of square tiles that cover a rectangle? ● How do you draw a rectangle with 2, 3, or 4 equal shares? ● How do you draw to show halves, thirds, and fourths of a shape? ● How do you color to show a half/third/fourth/quarter of a pizza? ● When might you need to divide a whole into equal shares?	● Children will identify angles in two-dimensional shapes. ● Children will sort two-dimensional shapes according to their attributes. ● Children will partition rectangles into same-sized squares and find the total number of these squares. ● Children will identify and name equal shares of circles and rectangles as halves, thirds, or fourths. ● Children will identify and describe one equal share as a half of, a third of, or a fourth of. ● Children will use visual models to show that equal shares of the same wholes do not need to have the same shape.

Evidence of Learning

Formative Assessment:

- Mid- Module Checkpoints

Summative Assessment:

- Module Review/Tests
- Module Tests

Differentiation/Customizing Learning (strategies):

- Work with teacher in small group using intervention activities
- Use math centers
- Use different manipulatives to model problems

Accommodations for ELL:

- Frequent pauses for understanding and focus
- Develop an understanding of key vocabulary
- Use of drawings, maps and graphs
- Engaging dialogue and discussion
- Assistance from ESL teacher in a small group setting
- Use of manipulatives
- Tools (rulers, measuring cups, etc.)
- Multi-leveled cooperative learning groups
- Envision 2.0 Resources: online Spanish resources and other RTI activities/procedures for differentiated learning.

Accommodations for Special Education:

- Frequent pauses for understanding and focus
- Develop an understanding of key vocabulary
- Use of drawings, maps and graphs
- Engaging dialogue and discussion

- Use of manipulatives
- Tools (rulers, measuring cups, etc.)
- Multi-leveled cooperative learning groups
- Assistance from Special Education teacher in a small group setting
- Envision 2.0 Resources: online resources and other RTI activities/procedures for differentiated learning.
- Refer to student IEP
- Accommodations for At-Risk Students:
- Frequent pauses for understanding and focus
- Develop an understanding of key vocabulary
- Use of drawings, maps and graphs
- Engaging dialogue and discussion
- Use of manipulatives
- Tools (rulers, measuring cups, etc.)
- Multi-leveled cooperative learning groups
- Assistance from Special Education teacher in a small group setting
- Envision 2.0 Resources: online resources and other RTI activities/procedures for differentiated learning.

Accommodations for Enrichment (G &T):

- Extension activities
- Independent practice in small groups
- Internet activities
- Envision 2.0: Each lesson offers Advanced activities for Differentiated instruction

Materials and Learning Plan

Materials:

- MathBoard
- Three-dimensional shapes
- Two-dimensional shapes
- Color tiles

Learning Plan:

Into Math Series

- Module 21, Lessons 1-4
- Module 22, Lessons 1-5

Interdisciplinary Connections

- L.RF.2.4. Read with sufficient accuracy and fluency to support comprehension.
  M. Read grade-level text with purpose and understanding.
  N. Read grade-level text orally with accuracy, appropriate rate, and expression.
- L.KL.2.1. Use knowledge of language and its conventions when writing, speaking, reading, or listening.
  G. Use words and phrases acquired through conversations, reading and being read to, and responding to texts.

- SOC.6.1.2.EconEM.1 [*Performance Expectation*] - Describe the skills and knowledge required to produce specific goods and services.
- SOC.6.1.2.CivicsPD.1 [*Performance Expectation*] - Engage in discussions effectively by asking questions, considering facts, listening to the ideas of others, and sharing opinions.
- SCI.2-PS1-2 [*Performance Expectation*] - Analyze data obtained from testing different materials to determine which materials have the properties that are best suited for an intended purpose.
- SCI.2-PS1-3 [*Performance Expectation*] - Make observations to construct an evidence-based account of how an object made of a small set of pieces can be disassembled and made into a new object.

Integration of 21st Century Skills: Career Readiness, Life Literacy, and Key Skills

☐**9.1 Personal Financial Literacy**
Financial Health: *Financial Psychology, Civic Financial Responsibility*
Financial Landscape: *Financial Institutions, Economic & Government Influences*
Money Management: *Planning & Budgeting, Risk Management & Insurance, Credit and Debit Management, Credit Profile*

☒**9.2 Career Awareness and Planning**

9.4 Life Literacies and Key Skills
Creativity and Innovation
Critical Thinking and Problem Solving
Global and Cultural Awareness

Effective Integration of Technology: Computer Science and Design Thinking & Life Literacies and Key Skills

☐**8.1 Computer Science**

☐**8.2 Design Thinking**

☐**9.4 Life Literacies and Key Skills**
Digital Citizenship
Information and Media Literacy
Technology Literacy

Effective Integration of Media Arts: Visual and Performing Arts Performance Standards

☒**1.2 Media Arts**
Creating - Conceive, Develop, and/or Construct
Performing - Integrate, Practice, and/or Present
Responding - Perceive, Evaluate, and/or Interpret
Connecting - Synthesize and/or Relate