Little Egg Harbor School District
Curriculum Guide

Mathematics: Second Grade

BOE APPROVAL DATE: 08/19/2025

Original Adoption:	August 2024
Created by:	Ocean County Curriculum Consortium
Revised on:	August 1, 2024
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Little Egg Harbor School District Mathematics Curriculum	
Content Area: Mathematics	
Course Title: Elementary	**Grade Level: 2**
Operations and Algebraic Thinking	**55 days**
Number and Operations in Base Ten	**60 days**
Measurement	**20 days**
Data Literacy	**25 days**
Geometry	**20 days**

Introduction

Vision for Mathematics Education in New Jersey

A New Jersey education in Mathematics builds quantitatively and analytically literate citizens prepared to meet the demands of college and career, and to engage productively in an information-driven society. All students will have access to a high-quality mathematics education that fosters a population that:

- Leverages data in decision-making and as a lens for discussing, analyzing, and responding to practical questions.
- Persists to make sense of and model problems arising in everyday life, society, and the workplace.
- Thinks critically and strategically to assess quantitative relationships and to solutions to complex problems.
- Employs precise reasoning and constructs viable arguments to deduce conclusions, recognize false statements and assess peers' reasoning.
- Interprets, evaluates and critiques the mathematics embedded in social, scientific and commercial systems, as well as the claims made in the private and public sectors.

In Second Grade, instruction focuses broadly 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

Critical Areas

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.

Alignment with State Mandates
The following colors are used throughout this document to indicate areas in which the curriculum is aligned with the following NJSA requirements: ● Holocaust and genocides (N.J.S.A. 18A:35-28) ● History and contributions of African-Americans (Amistad Law) (N.J.S.A. 18A:35-4.43) ● Highlight and promote diversity and inclusion (Diversity & Inclusion Law) (N.J.S.A. 18A:35-4.36a) ● Climate Change - to prepare students to understand how and why climate change happens, the impact it has on our local and global communities and to act in informed and sustainable ways. Please click here for specific examples (by subject).

Operations and Algebraic Thinking	**Duration: 55 days**

Standards/Learning Targets

Focus Standards (Major Standards)

- **2.OA.A.1** Represent and solve problems involving addition and subtraction.
- **2.OA.B.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.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.
- **2.OA.A** Represent and solve problems involving addition and subtraction
- **2.OA.B** Add and Subtract within 20

Supporting and Additional Standards

- **2.NBT.A2** 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

Primary Interdisciplinary Connections

English Language Arts

- **RI.CR.2.1.** Ask and answer questions to demonstrate understanding of key details in an informational text, referring explicitly to the text as the basis for the answers.
- **SL.PE.2.1.** Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups.
- **SL.AS.2.6.** Produce complete sentences when appropriate to task and situation in order to provide requested detail or clarification.

Science

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

Social Studies

- **6.1.4.B.2** Use physical and political maps to explain how the location and spatial relationship of places in New Jersey, the United States, and other areas, worldwide, have contributed to cultural diffusion and economic interdependence.

Computer Science and Design Thinking Standards

- **8.1.2.DA.1:** Collect and present data including climate change data, in various visual formats.
- **8.1.2.DA.3:** Identify and describe the patterns in data visualizations.
- **8.1.2.AP.1:** Model daily processes by creating and following algorithms to complete tasks.
- **8.2.2.ED.2:** Collaborate to solve a simple problem, or to illustrate how to build a product using the design process.
- **8.2.2.ED.3:** Select and use appropriate tools and materials to build a product using the design process.

Career Readiness, Life Literacies, and Key Skills Standards

- **9.1.2.CR.1:** Recognize ways to volunteer in the classroom, school and community.
- **9.1.2.PB.2:** Explain why an individual would choose to save money.
- **9.4.2.CI.2:** Demonstrate originality and inventiveness in work (e.g. 1.3A.2CR1a).
- **9.4.2.CT.2:** Identify possible approaches and resources to execute a plan (e.g., 1.2.2.CR1b.8.2.2.ED.3)
- **9.4.2.CT.3:** Use a variety of types of thinking to solve problems (e.g.,inductive, deductive).
- **9.4.2.TL.5:** Describe the difference between real and virtual experiences.

Evidence of Student Learning

Performance Tasks/Use of Technology

- i-Ready Math in Action
- i-Ready MyPath
- i-Ready Fluency Flight
- IXL
- Standards-based activities and tasks
- Google Slides & Forms

Assessments

Formative:

- Exit slips
- Teacher observations/anecdotal/checklists
- i-Ready games
- Performance Assessments
- Oral Assessments/Conferencing
- Portfolio/Math Journals

• Illustrative Math Tasks- Grade 2 • Math Milestones - Grade 2 Tasks • Digital Review Platforms - Kahoot Games/Blooket Review • Flipgrid • NCTM Illuminations • Splash Learn - Games for Kids • ABCya! - Games for Kids	• Daily Classwork • Pre-assessments **Summative:** • i-Ready Mid-Unit Assessments • i-Ready Unit Assessments • Digital Comprehension Checks • Unit & Cumulative Reviews • LinkIt Progress Monitoring Standard Assessments **Benchmark:** • i-Ready Assessments (Fall, Winter, Spring) • District-wide Common Benchmark Assessments **Alternative:** • Performance Tasks • Extension Projects • Written/verbal explanations • Peer assessment • Self-assessment • Untimed Fact Practice Assessment • Project Based Assessments with Scoring Rubric
Knowledge and Skills	
Content	**Skills**
Unit Essential Questions: • How can you represent and solve problems using addition and subtraction? • How can you use addition to find the total number in an array? **Enduring Understandings** ***Students will know: "I can…"***	**Students will be able to…** • Add and subtract using a hundreds chart and/or a number line. • Rewrite addition problems and find the sum and rewrite subtraction problems to find the difference. • Break apart an addend to make a new group of 10 to solve addition equations. • Break apart 1s to make a 10s number when you

• Add and subtract using a Hundreds Chart • Rewrite addition and subtraction problems to find the difference • Break apart and make new groups to solve equations • Represent and record addition and subtraction of 2 digit numbers with and without regrouping • Record the steps when adding and subtracting 2 digit numbers • Use addition and subtraction to find the difference using a number line • Find the sums of 3 and 4 two digit numbers by using addition strategies and properties • Represent addition and subtraction word problems using bar models and equations • Write an equation to solve addition and subtraction word problems • Solve multi-step addition and subtraction word problems • Use Doubles Facts to Add • Develop Fluency with Addition & Subtraction Using Mental Strategies and Properties • Relate Addition and Subtraction • Use the Make a Ten Strategy to Add	subtract. • Represent and record addition and subtraction of 2 digit numbers with and without regrouping. • Use addition and subtraction to find the difference using a number line. • Find the sums of 3 and 4 two digit numbers by using addition strategies and properties. • Represent addition and subtraction word problems using bar models and equations. • Write an equation to solve addition and subtraction word problems. • Solve multi-step addition and subtraction word problems. • Use doubles facts to solve an addition problem. • Show examples of related addition and subtraction facts. • Make 10 to find sums. • Use a number line and 10s facts to find differences. • Find the sum of three numbers. • Write an equation to show an even number as a sum of two equal addends. • Use tools or drawings to show equal groups of objects and find how many objects in all. • Use an addition equation to find a total number of objects in groups in various ways.
Instructional Plan	
Suggested Activities	**Resources**

● Math workstations with open-ended addition and subtraction tasks ● Addition and Subtraction games ● Collections of materials ● Manipulatives ● Activities to work on equal grouping ● **Number Sense Building Activities -** Daily drills through math journals, "Number of the Day" templates, markerboards, turn-and-talk, etc. * Focus on practicing numbers within 20 with activities such as: ○ 1 more, 1 less ○ Number partners for 20 ("Friends of 20") ○ Greater than, less than (ex. What is a number greater than 6 but less than 9?) ○ Start at any number and count up to 20	● Ready Mathematics Program ● i-Ready MyPath ● IXL ● Seesaw ● Class Dojo ● NJSLS and iRCL 2024 Padlet As appropriate: ○ Boom Cards ○ VB-Mapp ○ ABLLS-R ○ Connecting Math Concepts ○ Prodigy ○ SplashLearn Resources for **on-grade** students: ● Differentiated according to informal assessments ● 120 chart to assist with addition and subtraction ● Connecting cubes for addition and subtraction ● Counters to fill in ten frames ● Anchor Charts ● Touch Math with teacher guidance ● Video Guidance ● Log into i-Ready and then follow these steps: ○ Click assess and teach ○ Click Teacher Toolbox Math ○ Click Grade Level ○ Click REINFORCE and use the resources shown Resources for students **approaching** grade level expectations: ● Differentiated according informal assessments ● 120 chart to assist with addition and subtraction ● Connecting cubes for addition and subtraction ● Counters to fill in ten frames ● Touch point chart

	● Manipulatives with small group guidance ● Highlighters for close read strategies ● Touch Math small group ● Word Banks ● Log into i-Ready and then follow these steps: ○ Click assess and teach ○ Click Teacher Toolbox Math ○ Click Grade Level ○ Click RETEACH and use the resources shown Resources for students **exceeding** grade level expectations: ● Differentiated according to informal assessments ● 120 chart to assist with addition and subtraction ● Connecting cubes for addition and subtraction ● Counters to fill in ten frames ● Log into i-Ready and then follow these steps: ○ Click assess and teach ○ Click Teacher Toolbox Math ○ Click Grade Level ○ Click EXTEND and use the resources shown Useful links / online resources ● Print Material ● White board ● Computer ● Smart Board ● iPads/Laptops ● Document Reader ● Picture Books
Suggested Options for Differentiation	
Multilingual Learners: ● Simplify written and verbal instructions	

- Provide written directions with models and diagrams when possible
- Build in more group work to allow Multilingual Learner students to interact and communicate with peers
- Provide vocabulary ahead of time
- Use sentence frames to give students practice with academic language
- Pre-teach as often as possible- share videos, articles, vocabulary etc. with Multilingual Learner students prior to use in class
- Utilize visual charts/cues
- Highlight key words
- Provide manipulatives
- Frequently check for understanding

Special Education//Students with Disabilities:

- Follow specific students accommodations and modifications as listed in individual student IEP or 504 plan
- Provide opportunities for movement
- Have manipulatives and other math resources available for student use
- Incorporate small group instruction
- Utilize visual charts/cues
- Facilitate successful experiences
- Provide tutoring if needed
- Provide positive praise to increase motivation

504 Plan:

- Behavior management support.
- Adjusted class schedules or grading.
- Extended time on tests and assignments.
- Verbal, visual, or technology aids.

Gifted and Talented:

- Differentiated assignments/projects/assessments
- Differentiate learning pace using curriculum acceleration
- Curriculum compacting
- Open ended/abstract questions to activate higher level thinking
- Alternative modes of communication
- Student developed extension activities
- Plan self directed inquiry

- Student created rubrics
- Opportunities to push assessment/activity boundaries
- Self centered curriculum allowing for student choice

Students In Need of Academic Support:

- Ensure child has access to all appropriate academic resources both in school and at home
- Provide structure and adhere to a consistent daily routine with clear and concise rules
- Facilitate successful experiences
- Provide tutoring if needed
- Allow students to complete assignments in school
- Do not penalize for late or missing assignments/materials
- Offer encouragement and understanding
- Allow students to have personal possessions and property in school
- Give choice to provide a sense of control

Economically Disadvantaged:

- Provide clear, achievable expectations, do not lower academic requirements for them.
- Build a safe and nurturing atmosphere
- Be flexible with assignments
- Offer several alternatives from which all students can choose.
- Allow students to finish assignments independently, or give them the opportunity to complete tasks at their own pace.
- Use real-world examples and create mental models for abstract idea
- Provide increased knowledge base and vocabulary use about real world experiences.
- Share the decision making in class.
- Maintain expectations while offering choice and soliciting input

Culturally Diverse:

- Involve families in student learning
- Provide social/emotional support
- Respect cultural traditions
- Build in more group work to encourage interaction with peers
- Show photos, videos, and definitions when possible for culturally unique vocabulary
- Teach study skills
- Provided students with necessary academic resources and materials
- Allow for alternative assignments

- Provide visuals
- Assign peer tutor
- Support verbal explanations with non verbal cues: Gestures/ facial expressions Props, realia, manipulatives, concrete materials Visuals, graphs, pictures, maps
- Provide positive praise to increase motivation
- Provide real world connections and emphasize the value of education
- Communicate high expectations for the success of all students
- Integrate the arts into learning activities

Climate Change:

- Students may solve two-step word problems involving a climate change related issue in their school, such as food waste, recycling, reusing and/or reducing the consumption of goods. They may add and subtract within 100 while using drawing or equations to represent the climate change related issue.

Core Instructional and Supplemental Materials

- i-Ready Math Classroom and digital component
- Teachers manuals and student editions
- Math manipulatives
- Math workstations with open-ended tasks and collections of materials (activities to work on equal grouping)
- Number Bingo
- Addition and Subtraction games
- Supplemental Texts / Materials for Students <u>On-Grade / Meeting Expectations</u>
    - i-Ready Diagnostic individual path
    - Teacher created path
- Supplemental Texts for Students <u>Approaching Grade Level Expectations</u>
    - i-Ready Diagnostic individual path
    - Teacher created path
- Supplemental Texts for Students <u>Exceeding Grade Level Expectations</u>
    - i-Ready Diagnostic individual path
    - Teacher created path

As appropriate:

- Boom Cards

- VB-Mapp
- ABLLS-R
- Connecting Math Concepts
- Prodigy
- SplashLearn

Varied Levels of Texts-

- Marilyn Burns Math Library List
- Comic Books for Sale, Michael Multi-Lingual Learners
- Party Plans, Joan Frese
- Butterfly Farm, Harcourt Publishers
- Natures Numbers, Amy Lake
- Nature Walk, April Reign
- Doubles on the Farm, Joan Frese
- Game Time, Harcourt Publishers
- Benny, Bessie, and the Blueberries, Flora Perez
- Wow! Fluffo Sure Can Eat, Luis Alonso
- What do you Like, Harcourt Publishers
- Building a Mini-park, Harcourt Publishers
- Square Fair, Harcourt Publishers
- Dave and Boots, Harcourt Publishers
- The Number Machine, Harcourt Publishers
- Time to Take a Trip, Jennifer Marrewa
- EPIC

Teacher Notes/Reflections:

Number and Operations in Base Ten	Duration: 60 Days

Standards/Learning Targets

Focus Standards (Major Standards)

New Jersey Student Learning Standards:

- **2.NBT. A** Understanding Place Value
- **2.NBT.A.1a** .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.-100 can be thought of as a bundle of ten tens — called a "hundred."
- **2.NBT.A.1b** 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.A2** 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** Understand place value understanding and properties of operations to add and subtract.
- **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.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.

Supporting and Additional Standards

- **2.OA.B.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.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.

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Evidence of Student Learning

Performance Tasks/Use of Technology

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- i-Ready MyPath
- i-Ready Fluency Flight
- IXL
- Standards-based activities and tasks
- Google Slides & Forms
- Illustrative Math Tasks- Grade 2
- Math Milestones - Grade 2 Tasks
- Digital Review Platforms - Kahoot Games/Blooket Review
- Flipgrid
- NCTM Illuminations
- Splash Learn - Games for Kids
- ABCya! - Games for Kids

Assessments

Formative:

- Exit slips
- Teacher observations/anecdotal/checklists
- i-Ready games
- Performance Assessments
- Oral Assessments/Conferencing
- Portfolio/Math Journals
- Daily Classwork
- Pre-assessments

Summative:

- i-Ready Mid-Unit Assessments
- i-Ready Unit Assessments
- Digital Comprehension Checks
- Unit & Cumulative Reviews
- LinkIt Progress Monitoring Standard Assessments

Benchmark:

- i-Ready Assessments (Fall, Winter, Spring)
- District-wide Common Benchmark Assessments

Alternative:

- Performance Tasks
- Extension Projects
- Written/verbal explanations

	• Peer assessment • Self-assessment • Untimed Fact Practice Assessment • Project Based Assessments with Scoring Rubric
Knowledge and Skills	
Content	**Skills**
Unit Essential Questions: • How can you use and understand place value to help you add and subtract numbers? • How can you add and subtract 10 or 100 from a 3 digit number? • How do you read numbers to 1000? Which number do you say first? • How do you write numbers to 1000? Which number do you write first? • Can you write and show the value of a 3 digit number 2 different ways? • How can you compare three digit numbers? **Enduring Understandings** ***Students will know: "I can…"*** • Group Tens as Hundreds • Understand, Represent Three-Digit Numbers • Place Value to 1,000 • Use Expanded Form and Number Names to show different ways to show numbers • Count within 1,000 • Add and Subtract 10 or 100 • Identify and Extend Number Patterns • Compare Three-Digit Numbers using symbols <,>, and	***Students will be able to…*** • Count within 1000 by ones, 5s, 10s, and 100s beginning at any multiple of 1, 5, 10 or 100. • Utilize properties of operations to help with addition and subtraction • Use mental strategies to add and subtract fluently within 10. • Use strategies to add and subtract within 50. • Add and subtract 10 or 100 from a 3 digit number and look for patterns in the results. • Read numbers to 1000. I know which number you say first. • Write numbers to 1000. I know which number you write first. • Write and show the value of a 3 digit number 2 different ways. • Compare three digit numbers. • Draw quick pictures or break apart addends to add 100s, 10s and 1s. • Represent and solve 3 digit addition problems with regrouping. • Subtract a 3 digit number with and without regrouping using a concrete or visual model.

=.	• Regroup to solve addition and subtraction problems with three digit numbers.
Instructional Plan	
Suggested Activities	**Resources**
• Math workstations with open-ended addition and subtraction tasks • Addition and Subtraction games • Place Value focused activities • Collections of materials • Manipulatives • Number Sense Daily Routines Suggestions: These could be done daily through Do Now's, Number of the Day, small groups, and in workstations. • Review what the digits are in a number, ask students to add one more, one less to any number, use the calendar to count up to the day it currently is, ask how many ones are in that number, how many tens are in the number. • Using a 100 grid have students practice skip counting by either 2's, 3's, 4's, 5's, 6's, 7's, 8's, 9's, and 10's daily.(be sure that students each have their own grid) • Project a 100 grid on the board or use a poster then choose any number then count up to 100, or choose any number and count backwards. • Students will use two different colors of connecting cubes to make numbers; tens and ones (ex:1+4=5, 11+3=14, 10+2=12, 22+1=23) • Math Fact Family Triangles and other activities to build fluency. • Tactile counting with Place Value: Students each have a	• Ready Mathematics Program • i-Ready MyPath • IXL • Seesaw • Class Dojo • **NJSLS and iRCL 2024 Padlet** As appropriate: ○ Boom Cards ○ VB-Mapp ○ ABLLS-R ○ Connecting Math Concepts ○ Prodigy ○ SplashLearn Resources for **on-grade** students: • Differentiated according to informal assessments • 120 chart to assist with addition and subtraction • Connecting cubes for addition and subtraction • Anchor Charts and Number Grids • Touch Math with teacher guidance • Video Guidance • Base ten blocks to model numbers to support comprehension of place value • Place value chart for each student • i-Ready Diagnostic Individualized Paths • Log into i-Ready and then follow these steps:

hundred, tens, and ones chart (HTO chart). Using base ten cubes, counters, or dry beans then they start to count one at a time. They place the cube in the ones place on their HTO chart. Once they have ten cubes in the ones place they must move them into the tens column. It works well if they draw boxes, or little cups to put each ten in. ○ Keep counting! Every time a new ten is made, the cubes go in a cup and get moved over. It becomes very clear how the written numeral is related to the counters (ex: we have 3 cups of counters and 5 extras so the written numeral is 35). ○ When students get to 100, they take their 10 small cups of counters and put them together in a bigger cup. Then the big cup moves to the hundreds column.	○ Click assess and teach ○ Click Teacher Toolbox Math ○ Click Grade Level ○ Click REINFORCE and use the resources shown Resources for students **approaching** grade level expectations: ● Differentiated according informal assessments ● 120 chart/Number Grid to Assist with operations ● Skip counting charts for individual students to support addition and subtraction ● Connecting cubes ● Counters to fill in ten frames ● Base ten blocks to model numbers for comprehension of place value ● Touch point chart/Touch Math small group ● Manipulatives with small group guidance ● Highlighters for close read strategies ● Word Banks ● Log into i-Ready and then follow these steps: ○ Click assess and teach ○ Click Teacher Toolbox Math ○ Click Grade Level ○ Click RETEACH and use the resources shown Resources for students **exceeding** grade level expectations: ● Differentiated according to informal assessments ● 120 chart to assist with addition and subtraction ● Manipulatives to assist with operations/calculations ● Log into i-Ready and then follow these steps: ○ Click assess and teach ○ Click Teacher Toolbox Math ○ Click Grade Level ○ Click EXTEND and use the resources shown Useful links / online resources

	• Print Material • White board • Computer • Smart Board • iPads/Laptops • Document Reader • Picture Books

Suggested Options for Differentiation

Multilingual Learners:

- Simplify written and verbal instructions
- Provide written directions with models and diagrams when possible
- Build in more group work to allow Multilingual Learner students to interact and communicate with peers
- Provide vocabulary ahead of time
- Use sentence frames to give students practice with academic language
- Pre-teach as often as possible- share videos, articles, vocabulary etc. with Multilingual Learner students prior to use in class
- Utilize visual charts/cues
- Highlight key words
- Provide manipulatives
- Frequently check for understanding

Special Education//Students with Disabilities:

- Follow specific students accommodations and modifications as listed in individual student IEP or 504 plan
- Provide opportunities for movement
- Have manipulatives and other math resources available for student use
- Incorporate small group instruction
- Utilize visual charts/cues
- Facilitate successful experiences
- Provide tutoring if needed
- Provide positive praise to increase motivation

504 Plan:

- Behavior management support.

- Adjusted class schedules or grading.
- Extended time on tests and assignments.
- Verbal, visual, or technology aids.

Gifted and Talented:

- Differentiated assignments/projects/assessments
- Differentiate learning pace using curriculum acceleration
- Curriculum compacting
- Open ended/abstract questions to activate higher level thinking
- Alternative modes of communication
- Student developed extension activities
- Plan self directed inquiry
- Student created rubrics
- Opportunities to push assessment/activity boundaries
- Self centered curriculum allowing for student choice

Students In Need of Academic Support:

- Ensure child has access to all appropriate academic resources both in school and at home
- Provide structure and adhere to a consistent daily routine with clear and concise rules
- Facilitate successful experiences
- Provide tutoring if needed
- Allow students to complete assignments in school
- Do not penalize for late or missing assignments/materials
- Offer encouragement and understanding
- Allow students to have personal possessions and property in school
- Give choice to provide a sense of control

Economically Disadvantaged:

- Provide clear, achievable expectations, do not lower academic requirements for them.
- Build a safe and nurturing atmosphere
- Be flexible with assignments
- Offer several alternatives from which all students can choose.
- Allow students to finish assignments independently, or give them the opportunity to complete tasks at their own pace.
- Use real-world examples and create mental models for abstract idea

- Provide increased knowledge base and vocabulary use about real world experiences.
- Share the decision making in class.
- Maintain expectations while offering choice and soliciting input

Culturally Diverse:

- Involve families in student learning
- Provide social/emotional support
- Respect cultural traditions
- Build in more group work to encourage interaction with peers
- Show photos, videos, and definitions when possible for culturally unique vocabulary
- Provided students with necessary academic resources and materials
- Allow for alternative assignments
- Provide visuals and Teach study skills
- Assign peer tutor
- Support verbal explanations with non verbal cues: Gestures/ facial expressions Props, realia, manipulatives, concrete materials Visuals, graphs, pictures, maps
- Provide positive praise to increase motivation
- Provide real world connections and emphasize the value of education
- Communicate high expectations for the success of all students
- Integrate the arts into learning activities

Core Instructional and Supplemental Materials

- i-Ready Math Classroom and digital component
- Teachers manuals and student editions
- Math manipulatives
- Math workstations with open-ended tasks and collections of materials (activities to work on equal grouping)
- Addition and Subtraction games
- Supplemental Texts / Materials for Students <u>On-Grade / Meeting Expectations</u>
    - i-Ready Diagnostic individual path
    - Teacher created path
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    - Teacher created path
- Supplemental Texts for Students Exceeding Grade Level Expectations
    - i-Ready Diagnostic individual path
    - Teacher created path

As appropriate:

- Boom Cards
- VB-Mapp
- ABLLS-R
- Connecting Math Concepts
- Prodigy
- SplashLearn

Varied Levels of Text-

- Marilyn Burns Math Library List
- Margo's Lights, Ricky Santos
- Doubles on the Farm, Joan Freese
- Game Time, Harcourt Publishers
- Benny, Bessie, and the Blueberries, Flora Perez
- Nature's Numbers, Amy Lake
- Butterfly Farm, Harcourt Publishers
- Comic Books for Sale, Michael SMulti-Lingual Learners
- Party Plans, Joan Freese
- The If Game, Harcourt Publishers
- The Bug Boys, Celia Salerno
- The Roadside Stand, Asa Endo
- Feast for Ten, Cathryn FaldwMulti-Lingual Learner
- Moja Means One, Muriel Feelings
- EPIC

Teacher Notes/Reflections:

Measurement	**Duration: 20 days**

Standards/Learning Targets

Focus Standards (Major Standards)

- **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.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.A.3** Estimate lengths using units of inches, feet, centimeters, and meters.
- **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.
- **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.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.C.7** Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.
- **2.M.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.M.A** Measure and estimate lengths in standard units.
- **2.M.B** Relate addition and subtraction to length.

Supporting and Additional Standards

- **2.OA.A** Represent and solve problems involving addition and subtraction
- **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).

Primary Interdisciplinary Connections

English Language Arts

- **RI.CR.2.1.** Ask and answer questions to demonstrate understanding of key details in an informational text, referring explicitly to the text as the basis for the answers.
- **SL.PE.2.1.** Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups.
- **SL.AS.2.6.** Produce complete sentences when appropriate to task and situation in order to provide requested detail or clarification.

Science

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

Social Studies

- **6.1.4.B.2** Use physical and political maps to explain how the location and spatial relationship of places in New Jersey, the United States, and other areas, worldwide, have contributed to cultural diffusion and economic interdependence.

Computer Science and Design Thinking Standards

- **8.1.2.DA.1:** Collect and present data including climate change data, in various visual formats.
- **8.1.2.AP.1:** Model daily processes by creating and following algorithms to complete tasks.
- **8.2.2.ED.2:** Collaborate to solve a simple problem, or to illustrate how to build a product using the design process.
- **8.2.2.ED.3:** Select and use appropriate tools and materials to build a product using the design process

Career Readiness, Life Literacies, and Key Skills Standards

- **9.1.2.CR.1:** Recognize ways to volunteer in the classroom, school and community.
- **9.1.2.PB.2:** Explain why an individual would choose to save money.
- **9.4.2.CI.2:** Demonstrate originality and inventiveness in work (e.g. 1.3A.2CR1a).
- **9.4.2.CT.2:** Identify possible approaches and resources to execute a plan (e.g., 1.2.2.CR1b.8.2.2.ED.3).
- **9.4.2.CT.3:** Use a variety of types of thinking to solve problems (e.g.,inductive, deductive).
- **9.4.2.TL.5:** Describe the difference between real and virtual experiences.

Evidence of Student Learning

Performance Tasks/Use of Technology

- i-Ready Math in Action
- i-Ready MyPath
- i-Ready Fluency Flight
- IXL
- Standards-based activities and tasks
- Google Slides & Forms
- Illustrative Math Tasks- Grade 2
- Math Milestones - Grade 2 Tasks
- Digital Review Platforms - Kahoot Games/Blooket Review
- Flipgrid
- NCTM Illuminations
- Splash Learn - Games for Kids
- ABCya! - Games for Kids

Assessments

Formative:

- Exit slips
- Teacher observations/anecdotal/checklists
- i-Ready games
- Performance Assessments
- Oral Assessments/Conferencing
- Portfolio/Math Journals
- Daily Classwork
- Pre-assessments

Summative:

- i-Ready Mid-Unit Assessments
- i-Ready Unit Assessments
- Digital Comprehension Checks
- Unit & Cumulative Reviews
- LinkIt Progress Monitoring Standard Assessments

Benchmark:

- i-Ready Assessments (Fall, Winter, Spring)
- District-wide Common Benchmark Assessments

Alternative:

- Performance Tasks
- Extension Projects
- Written/verbal explanations
- Peer assessment
- Self-assessment
- Untimed Fact Practice Assessment
- Project Based Assessments with Scoring Rubric

Knowledge and Skills	
Content	**Skills**
Unit Essential Questions: ● How would you use inch tiles to estimate length and to measure objects? ● How can you use a ruler to measure the length of an object to the nearest inch and centimeter and show the data on a line plot? ● How can you use 12 inch rulers to estimate the length in feet? ● Explain how measuring in feet is different then measuring in inches and how meters are different from centimeters? ● How can you estimate and measure length to the nearest yard and meter? ● Explain how you would decide which measuring tool to use to measure lengths of different objects. ● How can you use an object with a known length to measure another object? ● How can you measure and estimate lengths in a standard unit? ● How can you relate addition and subtraction to length? **Enduring Understandings** ***Students will know: "I can…"*** ● Explain how measuring in feet is different then measuring in inches and how meters are different from centimeters	**Students will be able to…** ● Use inch tiles to estimate length and to measure objects ● Use a ruler to measure the length of an object to the nearest inch and centimeter and show the data on a line plot ● Use 12 inch rulers to estimate the length in feet ● Use an object with a known length to measure another object ● Solve 2 digit addition and subtraction problems using a ruler or yardstick as a number line ● Measure and then find the difference in the lengths of two objects using centimeters ● Show and write money using 10s and 1s ● Show multiple totals of coins in different ways

• Estimate and measure length to the nearest yard and meter • Decide which measuring tool to use to measure lengths of different objects. • Use an object with a known length to measure another object • Solve 2 digit addition and subtraction problems using a ruler or yardstick as a number line • Measure and then find the difference in the lengths of two objects using centimeters • Show and write money using 10s and 1s	
Instructional Plan	
Suggested Activities	**Resources**
• Develop anchor charts with measurement standards and descriptions/visuals • Read books about measurement and use extension (real world) activities related to the story • Introduce the concept of relative size • Practice comparing and ordering sizes of materials • Discuss standard and non-standard measurement along with possible tools for each • Compare heights with yarn • Snip lengths of pipe cleaners and analyze/discuss • Measure with paper clips • Line up in size • Go on a "measurement hunt" • Race cars and measure their lengths and/or distances • Jump like a frog and measure/compare	• Ready Mathematics Program • i-Ready MyPath • IXL • Seesaw • Class Dojo • **NJSLS and iRCL 2024 Padlet** As appropriate: ○ Boom Cards ○ VB-Mapp ○ ABLLS-R ○ Connecting Math Concepts ○ Prodigy ○ SplashLearn Resources for **on-grade** students: • Differentiated according to informal assessments • 120 chart to assist with addition and subtraction

● Measure and compare weights of items using scale balances - liquids using cups, spoons and containers ● Observe clocks and watches to count for time	● Connecting cubes for addition and subtraction ● Anchor Charts and Number Grids ● Touch Math with teacher guidance ● Video Guidance ● Base ten blocks to model numbers to support comprehension of place value ● Place value chart for each student ● i-Ready Diagnostic Individualized Paths ● Log into i-Ready and then follow these steps: ○ Click assess and teach ○ Click Teacher Toolbox Math ○ Click Grade Level ○ Click REINFORCE and use the resources shown Resources for students **approaching** grade level expectations: ● Differentiated according informal assessments ● 120 chart/Number Grid to Assist with operations ● Skip counting charts for individual students to support addition and subtraction ● Connecting cubes ● Counters to fill in ten frames ● Base ten blocks to model numbers for comprehension of place value ● Touch point chart/Touch Math small group ● Manipulatives with small group guidance ● Highlighters for close read strategies ● Word Banks ● Log into i-Ready and then follow these steps: ○ Click assess and teach ○ Click Teacher Toolbox Math ○ Click Grade Level ○ Click RETEACH and use the resources shown Resources for students **exceeding** grade level expectations:

	● Differentiated according to informal assessments ● 120 chart to assist with addition and subtraction ● Manipulatives to assist with operations/calculations ● Log into i-Ready and then follow these steps: ○ Click assess and teach ○ Click Teacher Toolbox Math ○ Click Grade Level ○ Click EXTEND and use the resources shown Useful links / online resources ● Print Material ● White board ● Computer ● Smart Board ● iPads/Laptops ● Document Reader ● Picture Books

Suggested Options for Differentiation

Multilingual Learners :

- Simplify written and verbal instructions
- Provide written directions with models and diagrams when possible
- Build in more group work to allow Multilingual Learner students to interact and communicate with peers
- Provide vocabulary ahead of time
- Use sentence frames to give students practice with academic language
- Pre-teach as often as possible- share videos, articles, vocabulary etc. with Multilingual Learner students prior to use in class
- Utilize visual charts/cues
- Highlight key words
- Provide manipulatives
- Frequently check for understanding

Special Education//Students with Disabilities:

- Follow specific students accommodations and modifications as listed in individual student IEP or 504 plan

- Provide opportunities for movement
- Have manipulatives and other math resources available for student use
- Incorporate small group instruction
- Utilize visual charts/cues
- Facilitate successful experiences
- Provide tutoring if needed
- Provide positive praise to increase motivation

504 Plan:

- Behavior management support.
- Adjusted class schedules or grading.
- Extended time on tests and assignments.
- Verbal, visual, or technology aids.

Gifted and Talented:

- Differentiated assignments/projects/assessments
- Differentiate learning pace using curriculum acceleration
- Curriculum compacting
- Open ended/abstract questions to activate higher level thinking
- Alternative modes of communication
- Student developed extension activities
- Plan self directed inquiry
- Student created rubrics
- Opportunities to push assessment/activity boundaries
- Self centered curriculum allowing for student choice

Students In Need of Academic Support:

- Ensure child has access to all appropriate academic resources both in school and at home
- Provide structure and adhere to a consistent daily routine with clear and concise rules
- Facilitate successful experiences
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- Allow students to complete assignments in school
- Do not penalize for late or missing assignments/materials
- Offer encouragement and understanding

- Allow students to have personal possessions and property in school
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Economically Disadvantaged:

- Provide clear, achievable expectations, do not lower academic requirements for them.
- Build a safe and nurturing atmosphere
- Be flexible with assignments
- Share decision making and offer several alternatives from which all students can choose. (soliciting input when possible)
- Allow students to finish assignments independently, or give them the opportunity to complete tasks at their own pace.
- Use real-world examples and create mental models for abstract idea
- Provide increased knowledge base and vocabulary use about real world experiences.

Culturally Diverse:

- Involve families in student learning
- Provide social/emotional support
- Respect cultural traditions
- Build in more group work to encourage interaction with peers
- Show photos, videos, and definitions when possible for culturally unique vocabulary
- Teach study skills
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Varied Levels of Text-

- Marilyn Burns Math Library List
- Miss B.'s Class Makes Tables and Graphs
- Inch by Inch by Leo Lionni
- Time to Play
- How Tall How Short
- Treasure Hunts
- The King's Foot
- EPIC

Teacher Notes/Reflections:

Data Literacy	**Duration: 25 Days**

Standards/Learning Targets

Focus Standards (Major Standards)

- **2.DL.A** Understand concepts of data.
- **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** Represent and interpret data.
- **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.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.

Supporting and Additional Standards

- **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.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.B** Relate addition and subtraction to length

Primary Interdisciplinary Connections

English Language Arts

- **RI.CR.2.1.** Ask and answer questions to demonstrate understanding of key details in an informational text, referring explicitly to the text as the basis for the answers.
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Science

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

Social Studies

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Computer Science and Design Thinking Standards

- **8.1.2.DA.1:** Collect and present data including climate change data, in various visual formats
- **8.1.2.DA.3:** Identify and describe the patterns in data visualizations.
- **8.1.2.AP.1:** Model daily processes by creating and following algorithms to complete tasks.
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- **9.4.2.CT.2:** Identify possible approaches and resources to execute a plan (e.g., 1.2.2.CR1b.8.2.2.ED.3)
- **9.4.2.CT.3:** Use a variety of types of thinking to solve problems (e.g.,inductive, deductive).
- **9.4.2.TL.5:** Describe the difference between real and virtual experiences.

Evidence of Student Learning

Performance Tasks/Use of Technology	Assessments
• i-Ready Math in Action • i-Ready MyPath • i-Ready Fluency Flight • IXL • Standards-based activities and tasks • Google Slides & Forms • Illustrative Math Tasks- Grade 2 • Math Milestones - Grade 2 Tasks • Digital Review Platforms - Kahoot Games/Blooket Review • Flipgrid • NCTM Illuminations • Splash Learn - Games for Kids • ABCya! - Games for Kids	**Formative:** • Exit Slips • Teacher observations/anecdotal/checklists • i-Ready games • Performance Assessments • Oral Assessments/Conferencing • Portfolio/Math Journals • Daily Classwork • Pre-assessments **Summative:** • i-Ready Mid-Unit Assessments • i-Ready Unit Assessments • Digital Comprehension Checks • Unit & Cumulative Reviews • LinkIt Progress Monitoring Standard Assessments **Benchmark:** • i-Ready Assessments (Fall, Winter, Spring) • District-wide Common Benchmark Assessments **Alternative:** • Performance Tasks • Extension Projects • Written/verbal explanations • Peer assessment • Self-assessment • Untimed Fact Practice Assessment • Project Based Assessments with Scoring Rubric
Knowledge and Skills	

Content	Skills
Unit Essential Questions: ● How can data vary? ● How can you represent and interpret data? **Enduring Understandings** ***Students will know: "I can…"*** ● Use a ruler to measure the length of an object to the nearest inch and centimeter and show the data on a line plot. ● Understand that people collect data to answer questions. ● Understand that data can vary. ● Identify what could count as data. ● Draw a picture graph and a bar graph to represent a data set up to four categories.	**Students will be able to..** ● Use a ruler to measure the length of an object to the nearest inch and centimeter and show the data on a line plot. ● Collect data to analyze and compare. ● Understand that data can vary and change. ● Use visuals, sounds or numbers to count as data. ● Use data to be taken apart, compared and presented in a bar graph.
Instructional Plan	
Suggested Activities	**Resources**
● Students practice counting and sorting items into groups by various attributes and compare/discuss their findings. ● Create and read line plots ● View tally charts and interpret their data components to answer associated questions ● Read and analyze bar graphs based on collected data by the class (weather, favorite items/sports/foods, height, plant growth etc.) ● Collect and graph data to compare criteria ● Analyze table data and discuss more/less and how much more/less to describe terms in further	● Ready Mathematics Program ● i-Ready MyPath ● IXL ● Seesaw ● Class Dojo ● **NJSLS and iRCL 2024 Padlet** As appropriate: ○ Boom Cards ○ VB-Mapp ○ ABLLS-R ○ Connecting Math Concepts

• **K5 Learning Data Activities**	○ Prodigy ○ SplashLearn Resources for **on-grade** students: • Differentiated according to informal assessments • 120 chart to assist with addition and subtraction • Connecting cubes for addition and subtraction • Anchor Charts and Number Grids • Touch Math with teacher guidance • Video Guidance • Base ten blocks to model numbers to support comprehension of place value • Place value chart for each student • i-Ready Diagnostic Individualized Paths • Log into i-Ready and then follow these steps: ○ Click assess and teach ○ Click Teacher Toolbox Math ○ Click Grade Level ○ Click REINFORCE and use the resources shown Resources for students **approaching** grade level expectations: • Differentiated according informal assessments • 120 chart/Number Grid to Assist with operations • Skip counting charts for individual students to support addition and subtraction • Connecting cubes • Counters to fill in ten frames • Base ten blocks to model numbers for comprehension of place value • Touch point chart/Touch Math small group • Manipulatives with small group guidance • Highlighters for close read strategies • Word Banks • Log into i-Ready and then follow these steps:

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- Utilize visual charts/cues

- Highlight key words
- Provide manipulatives
- Frequently check for understanding

Special Education//Students with Disabilities:

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- Provide opportunities for movement
- Have manipulatives and other math resources available for student use
- Incorporate small group instruction
- Utilize visual charts/cues
- Facilitate successful experiences
- Provide tutoring if needed
- Provide positive praise to increase motivation

504 Plan:

- Behavior management support.
- Adjusted class schedules or grading.
- Extended time on tests and assignments.
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Gifted and Talented:

- Differentiated assignments/projects/assessments
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- Provide structure and adhere to a consistent daily routine with clear and concise rules

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- Allow students to complete assignments in school
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- Teach study skills
- Provided students with necessary academic resources and materials
- Allow for alternative assignments
- Provide visuals
- Assign peer tutor
- Support verbal explanations with non verbal cues: Gestures/ facial expressions Props, realia, manipulatives, concrete materials Visuals, graphs, pictures, maps
- Provide positive praise to increase motivation
- Provide real world connections and emphasize the value of education

- Communicate high expectations for the success of all students
- Integrate the arts into learning activities

Climate Change

- Students may ask and answer questions about objects that may be reused, objects that may be recycled, and objects that must be placed in the trash. Students may organize used objects into those categories, and ask and answer questions about the total number of objects, how many are in each category, and how many more or fewer are in one category than in another.

Core Instructional and Supplemental Materials

- i-Ready Math Classroom and digital component
- Teachers manuals and student editions
- Math manipulatives
- Math workstations with open-ended tasks and collections of materials (activities to work on equal grouping)
- Addition and Subtraction games
- Supplemental Texts / Materials for Students On-Grade / Meeting Expectations
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As appropriate:

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- SplashLearn

Varied Levels of Text-

- Marilyn Burns Math Library List
- The Best Vacation Ever by Stuart J. Murphy
- Lemonade for Sale by Stuart J. Murphy
- The Great Graph Contest by Laureen Leedy
- Tiger Math by Ann Whitehead Nagda
- Less Than Zero by Stuart J. Murphy
- Tally O'Malley by Stuart J. Murphy
- Tally Cat Keeps Track by Trudy Harris
- Miss B.'s Class Makes Tables and Graphs
- Inch by Inch by Leo Lionni
- Time to Play
- How Tall How Short
- Treasure Hunts
- The King's Foot
- EPIC

Teacher Notes/Reflections:

Geometry	**Duration: 20 Days**
Standards/Learning Targets	

Focus Standards (Major Standards)

- **2.G.A** Reason with shapes and their attributes.
- **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.
- **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 holes need not have the same shape. For example, students partition a rectangle (i.e., the whole) into three equal shares, identify each of the shares as a 'third' and describe the rectangle as three 'thirds'.

Supporting and Additional Standards

- **2.OA.A.1** Represent and solve problems involving addition and subtraction.
- **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.

Primary Interdisciplinary Connections

English Language Arts

- **RI.CR.2.1.** Ask and answer questions to demonstrate understanding of key details in an informational text, referring explicitly to the text as the basis for the answers.
- **SL.PE.2.1.** Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups.
- **SL.AS.2.6.** Produce complete sentences when appropriate to task and situation in order to provide requested detail or clarification.

Science

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

Social Studies

- **6.1.4.B.2** Use physical and political maps to explain how the location and spatial relationship of places in New Jersey, the United States, and other areas, worldwide, have contributed to cultural diffusion and economic interdependence.

Computer Science and Design Thinking Standards

- **8.1.2.DA.1:** Collect and present data including climate change data, in various visual formats.
- **8.1.2.DA.3:** Identify and describe the patterns in data visualizations.
- **8.1.2.AP.1:** Model daily processes by creating and following algorithms to complete tasks.
- **8.2.2.ED.2:** Collaborate to solve a simple problem, or to illustrate how to build a product using the design process.
- **8.2.2.ED.3:** Select and use appropriate tools and materials to build a product using the design process.

Career Readiness, Life Literacies, and Key Skills Standards

- **9.1.2.CR.1:** Recognize ways to volunteer in the classroom, school and community.
- **9.1.2.PB.2:** Explain why an individual would choose to save money.
- **9.4.2.CI.2:** Demonstrate originality and inventiveness in work (e.g. 1.3A.2CR1a).
- **9.4.2.CT.2:** Identify possible approaches and resources to execute a plan (e.g., 1.2.2.CR1b.8.2.2.ED.3).
- **9.4.2.CT.3:** Use a variety of types of thinking to solve problems (e.g.,inductive, deductive).
- **9.4.2.TL.5:** Describe the difference between real and virtual experiences.

Evidence of Student Learning

Performance Tasks/Use of Technology

- i-Ready Math in Action
- i-Ready MyPath
- i-Ready Fluency Flight
- IXL
- Standards-based activities and tasks
- Google Slides & Forms
- Illustrative Math Tasks- Grade 2
- Math Milestones - Grade 2 Tasks
- Digital Review Platforms - Kahoot Games/Blooket Review
- Flipgrid
- NCTM Illuminations

Assessments

Formative:

- Exit slips
- Teacher observations/anecdotal/checklists
- i-Ready games
- Performance Assessments
- Oral Assessments/Conferencing
- Portfolio/Math Journals
- Daily Classwork
- Pre-assessments

Summative:

- i-Ready Mid-Unit Assessments
- i-Ready Unit Assessments

• Splash Learn - Games for Kids • ABCya! - Games for Kids	• Digital Comprehension Checks • Unit & Cumulative Reviews • LinkIt Progress Monitoring Standard Assessments **Benchmark:** • i-Ready Assessments (Fall, Winter, Spring) • District-wide Common Benchmark Assessments **Alternative:** • Performance Tasks • Extension Projects • Written/verbal explanations • Peer assessment • Self-assessment • Untimed Fact Practice Assessment • Project Based Assessments with Scoring Rubric
Knowledge and Skills	
Content	**Skills**
Unit Essential Questions: • How can I reason with shapes and their attributes? • How can you describe and compare the attributes of three dimensional and two dimensional shapes? • How can you find, count and compare sides and angles in two dimensional shapes? • How can you find the total number of colored tiles that will cover a rectangle? • What are the different attributes/characteristics that make a shape fit into a specific category? • What are different ways to describe the shares of partitioned shapes?	***Students will be able to..*** • Discuss and describe the attributes of three dimensional and two dimensional shapes. • Find, count and compare sides and angles in two dimensional shapes. • Find the total number of an object that will cover a rectangular space. • Describe attributes/characteristics that make a shape fit into a specific category. • Use different methods/tools and ways to describe the shares of partitioned shapes.

Enduring Understandings ***Students will know: "I can…"*** ● Describe and compare the attributes of three dimensional and two dimensional shapes. ● Find, count and compare sides and angles in two dimensional shapes. ● Find the total number of colored tiles that will cover a rectangle. ● Identify, name and draw equal shares of shapes as halves, thirds or fourths. ● Draw and color to show a half of, third of or fourth of a shape. ● Draw to show the same wholes, as equal shares, in two different ways.	
Instructional Plan	
Suggested Activities	**Resources**
Suggested Activities/Resources: ● Math workstations with open-ended tasks ● Shape style games and activities (Shape Bingo, Shape "Hunt", Mystery bag, etc.) ● Collections of materials ● Manipulatives ● Hands-On Activity: ○ **Create a rectangular mosaic** - (Hands on) Materials: 1-inch grid paper, 12, 2-inch squares in varied colors, glue, grid should be 6 square rows and 8 square columns.	● Ready Mathematics Program ● i-Ready MyPath ● IXL ● Seesaw ● Class Dojo ● NJSLS and iRCL 2024 Padlet As appropriate: ○ Boom Cards ○ VB-Mapp ○ ABLLS-R ○ Connecting Math Concepts ○ Prodigy ○ SplashLearn

○ Tell students that they are going to make a rectangular design, using 24 of the 2-inch squares, on the paper grid. ○ Arrange the squares on the grid paper before gluing, be sure design is what they like. ○ Students will glue the squares on the paper, remind them to stay within the grid lines to make their rectangular mosaic. ○ Compare/discuss designs. **Extension Activity**: ○ Find all ways to fill a rectangle- Materials: For each student: 12 in. X 18 in. sheet if construction paper, inch ruler ○ Tell students that their challenge is to find out what sizes of squares they could use to partition this rectangular paper. They may only consider squares that are whole inch sizes, such as 1 inch, 2 inch, and 3 inches, etc. ○ Students need to find all the possible sizes of squares that would work and justify why they are the wonky sizes that would work. ○ Share and discuss their work with partners. ● Read, The Greedy Triangle, by: Marilyn Burns Discuss with a partner how many different shapes they saw in the book. Discuss how they were all different and how they were the same. ○ Draw different quadrilaterals and compare/discuss their attributes, differences and similarities ● Other Suggested Resources:	Resources for **on-grade** students: ● Differentiated according to informal assessments ● 120 chart to assist with addition and subtraction ● Connecting cubes for addition and subtraction ● Anchor Charts and Number Grids ● Touch Math with teacher guidance ● Video Guidance ● Base ten blocks to model numbers to support comprehension of place value ● Place value chart for each student ● i-Ready Diagnostic Individualized Paths ● Log into i-Ready and then follow these steps: ○ Click assess and teach ○ Click Teacher Toolbox Math ○ Click Grade Level ○ Click REINFORCE and use the resources shown Resources for students **approaching** grade level expectations: ● Differentiated according informal assessments ● 120 chart/Number Grid to Assist with operations ● Skip counting charts for individual students to support addition and subtraction ● Connecting cubes ● Counters to fill in ten frames ● Base ten blocks to model numbers for comprehension of place value ● Touch point chart/Touch Math small group ● Manipulatives with small group guidance ● Highlighters for close read strategies ● Word Banks ● Log into i-Ready and then follow these steps: ○ Click assess and teach ○ Click Teacher Toolbox Math

<table>
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<td>
● Representing Half of a Rectangle
● Partitioning a Rectangle into Unit Squares
● Which Pictures Represent One Half?
● Drawing/Comparing Polygons
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<td>
○ Click Grade Level
○ Click RETEACH and use the resources shown
Resources for students exceeding grade level expectations:
● Differentiated according to informal assessments
● 120 chart to assist with addition and subtraction
● Manipulatives to assist with operations/calculations
● Log into i-Ready and then follow these steps:
○ Click assess and teach
○ Click Teacher Toolbox Math
○ Click Grade Level
○ Click EXTEND and use the resources shown
Useful links / online resources
● Print Material
● White board
● Computer
● Smart Board
● iPads/Laptops
● Document Reader
● Picture Books
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<tr>
<td colspan="2">Suggested Options for Differentiation</td>
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Multilingual Learners :
● Simplify written and verbal instructions
● Provide written directions with models and diagrams when possible
● Build in more group work to allow Multilingual Learners to interact and communicate with peers
● Provide vocabulary ahead of time
● Use sentence frames to give students practice with academic language
● Pre-teach as often as possible- share videos, articles, vocabulary etc. with Multilingual Learners prior to use in class
● Utilize visual charts/cues
● Highlight key words
● Provide manipulatives
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- Frequently check for understanding

Special Education//Students with Disabilities:

- Follow specific students accommodations and modifications as listed in individual student IEP or 504 plan
- Provide opportunities for movement
- Have manipulatives and other math resources available for student use
- Incorporate small group instruction
- Utilize visual charts/cues
- Facilitate successful experiences
- Provide tutoring if needed
- Provide positive praise to increase motivation

504 Plan:

- Behavior management support.
- Adjusted class schedules or grading.
- Extended time on tests and assignments.
- Verbal, visual, or technology aids.

Gifted and Talented:

- Differentiated assignments/projects/assessments
- Differentiate learning pace using curriculum acceleration
- Curriculum compacting
- Open ended/abstract questions to activate higher level thinking
- Alternative modes of communication
- Student developed extension activities
- Plan self directed inquiry
- Student created rubrics
- Opportunities to push assessment/activity boundaries
- Self centered curriculum allowing for student choice

Students In Need of Academic Support:

- Ensure child has access to all appropriate academic resources both in school and at home
- Provide structure and adhere to a consistent daily routine with clear and concise rules
- Facilitate successful experiences
- Provide tutoring if needed

- Allow students to complete assignments in school
- Do not penalize for late or missing assignments/materials
- Offer encouragement and understanding
- Allow students to have personal possessions and property in school
- Give choice to provide a sense of control

Economically Disadvantaged:

- Provide clear, achievable expectations, do not lower academic requirements for them.
- Build a safe and nurturing atmosphere
- Be flexible with assignments
- Offer several alternatives from which all students can choose and solicit input when possible
- Allow students to finish assignments independently, or give them the opportunity to complete tasks at their own pace.
- Use real-world examples and create mental models for abstract idea
- Provide increased knowledge base and vocabulary use about real world experiences.
- Share the decision making in class.

Culturally Diverse:

- Involve families in student learning
- Provide social/emotional support
- Respect cultural traditions
- Build in more group work to encourage interaction with peers
- Show photos, videos, and definitions when possible for culturally unique vocabulary
- Provided students with necessary academic resources and materials
- Allow for alternative assignments
- Provide visuals and Teach study skills
- Assign peer tutor
- Support verbal explanations with non verbal cues: Gestures/ facial expressions Props, realia, manipulatives, concrete materials Visuals, graphs, pictures, maps
- Provide positive praise to increase motivation
- Provide real world connections and emphasize the value of education
- Communicate high expectations for the success of all students
- Integrate the arts into learning activities

Core Instructional and Supplemental Materials

- i-Ready Math Classroom and digital component
- Teachers manuals and student editions
- Math manipulatives
- Math workstations with open-ended tasks and collections of materials (activities to work on equal grouping)
- Addition and Subtraction games
- Supplemental Texts / Materials for Students On-Grade / Meeting Expectations
    - i-Ready Diagnostic individual path
    - Teacher created path
- Supplemental Texts for Students Approaching Grade Level Expectations
    - i-Ready Diagnostic individual path
    - Teacher created path
- Supplemental Texts for Students Exceeding Grade Level Expectations
    - i-Ready Diagnostic individual path
    - Teacher created path

As appropriate:

- Boom Cards
- VB-Mapp
- ABLLS-R
- Connecting Math Concepts
- Prodigy
- SplashLearn

Varied Levels of Text-

- Marilyn Burns Math Library List
- The Lion's Share
- Shapes That Roll
- Twizzlers Pull n Peel Math-by Jerry Pallotta
- Building a Mini Park Signs
- The Greedy Triangle-by Marilyn Burns
- Shape Up
- Not Enough Room-by Joanne Rocklin
- The Shape of Things
- Taking Shape, Ricardo Ramos

• EPIC
Teacher Notes/Reflections: