












**Grade 2 Mathematics**  
**Unit 13: Length in Customary Units**

Updated August 2024

Trimester	Unit Title	Recommended Instructional Days
3	Length in Customary Units	11 - 14 days
<b>Domain: Measurement &amp; Data Literacy</b>		
<p><i>Strand:</i></p> <p> <b>2.M.A.1</b> Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.</p> <p> <b>2.M.A.2</b> 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.</p> <p> <b>2.M.A.3</b> Estimate lengths using units of inches, feet, centimeters, and meters.</p> <p> <b>2.M.B.5</b> 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. </p> <p> <b>2.M.B.6</b> 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.</p> <p> <b>2.DL.B.3</b> 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.</p> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;"> <b>Major Cluster</b></div> <div style="text-align: center;"> <b>Supporting Cluster</b></div> <div style="text-align: center;"> <b>Additional Cluster</b></div> <div style="text-align: center;"> <b>Climate Change Opportunity</b></div> </div>		
<p><b>Progress Indicator:</b> ◊ Tests ◊ Homework / Classwork ◊ Projects ◊ Formative assessments ◊ Summative assessments ◊ Performance assessments</p>		

**Mathematical Practices:**

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reason of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

**Recommended Activities, Investigations, Interdisciplinary Connections, and/or Student Experiences to Explore NJSL-CLKS within Unit**

**Essential Questions:**

- Lesson 13.1: How can you measure using inch models?  
Lesson 13.2: What is the correct way to measure using a ruler?  
Lesson 13.3: What does it mean to estimate the length of an object in inches?  
Lesson 13.4: How can you use a ruler to measure different lengths?  
Lesson 13.5: How do you know when to add or subtract when solving problems involving measurements?  
Lesson 13.6: How can you measure the length or height of an object in inches or feet?  
Lesson 13.7: What does it mean to estimate the length of an object in feet?  
Lesson 13.8: What does it mean to estimate the length of an object in yards?  
Lesson 13.9: How can you estimate different lengths of measure to solve problems?  
Lesson 13.10: How can you decide which measuring tool can help you to best measure an object?  
Lesson 13.11: How can you show different measurements on a line plot?

**Essential Understandings:**

- Lesson 13.1: Use inch models to measure length.  
Lesson 13.2: Use a ruler to measure length.  
Lesson 13.3: Estimate the lengths of objects in inches.  
Lesson 13.4: Use an inch ruler to measure lengths.  
Lesson 13.5: Draw a diagram to solve problems about length.  
Lesson 13.6: Understand the difference between measuring in feet and measuring in inches  
Lesson 13.7: Estimate the length of objects in feet.  
Lesson 13.8: Estimate the lengths of objects in yards.  
Lesson 13.9: Estimate lengths to solve measurement problems.  
Lesson 13.10: Choose a measuring tool to measure lengths.

Lesson 13.11: Display measurement data on a line plot.

**Vocabulary**

- inch
- foot
- yardstick
- measuring tape
- line plot

**Suggested Activity Description:**

Waggle, On the Spot Videos, Tier 2 and 3 Intervention Resources, Vocabulary Activities, Grab and Go Differentiation Kit, Explore and Guided/Independent Practice related to the NJSLS, Essential Question Discussion and Check-In, Share and Show, Basic Skills Review, Manipulative Activity, Reteach Activity, Reading Strategies Activity, Making Connections, Multilingual Support, Performance Task, Enrich Activity, Exit Ticket

**Interdisciplinary Connections:**

**Science:**

**(Lesson 13.6)**

Materials: Inch rulers, 3–5 different types of leaves

1. Divide the class into small groups. Give each group a ruler and a leaf. Ask groups to measure the length of their leaf in inches.
2. Have groups compare their measurements. Discuss how the lengths of the leaves are different. Ask children why they think the leaves are different sizes.

**(Lesson 13.10)**

1. Ask children to list some different kinds of trees that they have seen. Explain that these different trees have similar qualities.
2. Have children discuss how they could use a measuring tape, a yardstick, and an inch ruler to measure the different parts of a tree.
3. Which tool would be the best tool to use to measure the distance around the trunk? Which tool would be the best tool to use to measure the length of a leaf? Which tool would be the best tool to use to measure the length of a branch? Explain.

**Social Studies:**

**(Lesson 13.6)**

Materials: Inch rulers, American flags

1. Explain to children that there are rules for how the American flag is made, such as length compared to width, size of the blue box, and height of the stripes.
2. Distribute rulers and flags to groups. Explain that the length of the flag is measured along the stripes and the width of the flag is the shorter distance measured across the stripes.
3. Have children measure different parts of the flag. If time allows, discuss the different measurements that children found.

**(Lesson 13.10)**

Materials: Various classroom materials used when studying Social Studies topics, inch ruler, yardstick, measuring tape

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1. Display various materials that are used when studying different topics in Social Studies, such as a globe, a map, an atlas, reference books, and so on. Have children describe what they know about these various materials.
2. Then have children discuss how they could use the inch ruler, yardstick, and measuring tape to measure these classroom objects.
3. Which objects are the best to measure with a measuring tape? Which objects are the best to measure with an inch ruler?

**Language Arts:**

1. Nature Walk - (From the Differentiated Centers Kits Grab and Go)
2. We Can Measure! - (From the Differentiated Centers Kits Grab and Go)



**Climate Change:** Students may add and subtract within 100 to solve word problems about a climate change issue that involves length. To solve these problems, they may use drawings or equations to represent a climate change related issue in their school, such as food waste, recycling, reusing and/or reducing the consumption of goods.

**Spot Light On:** Define "include" with examples.

<b>Social and Emotional Learning: Competencies</b>	<b>Social and Emotional Learning: Sub-Competencies</b>
SEL Competencies: <ul style="list-style-type: none"> <li>• Self- awareness</li> <li>• Social Awareness</li> <li>• Self- Management</li> <li>• Relationship Skills</li> <li>• Responsible Decision-Making</li> </ul>	<ul style="list-style-type: none"> <li>• Recognizing the importance of self-confidence in handling daily tasks and challenges.</li> <li>• Demonstrate an awareness of the expectations for social interactions in a variety of ways.</li> <li>• Demonstrate an understanding of the need for mutual respect when viewpoints differ.</li> <li>• Identify and apply ways to persevere through alternative methods to achieve goals.</li> <li>• Utilize positive communication and social skills to interact effectively with others.</li> <li>• Develop, implement, and model effective problem solving and critical thinking skills.</li> </ul>
<b>Assessments (Formative)</b> <i>To show evidence of meeting the standard/s, students will successfully engage within:</i>	<b>Assessments (Summative)</b> <i>To show evidence of meeting the standard/s, students will successfully complete:</i>
<b>Formative Assessments:</b> • Teacher Observations • Exit Tickets • Quizzes • Self Assessments • Math Journals • Homework/Classwork • Teacher created assessments	<b>Benchmarks &amp; Summative Assessments:</b> Chapter/Unit Assessments • Standardized Tests • Project-based Assessments

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<b>Differentiated Student Access to Content: Teaching and Learning <i>Resources/Materials</i></b>			
<b>Core Resources</b>	<b>Alternate Core Resources <i>IEP/504/At-Risk/ESL</i></b>	<b>ELL Core Resources</b>	<b>Gifted &amp; Talented Core Resources</b>
Go Math Workbook, Interactive Student Edition, ST MATH 60 minutes a week, Waggle, Math on the Spot Videos, iReady, Khan Academy, Illustrative Mathematics, Learn360, TeacherTube, BrainPOP, Freckle, LearnZillion, MobyMax, Achieve the Core, Desmos, RTI	Reteaching worksheets, Skill building workbook, Math manipulatives, iTools, Leveled practice worksheets	Multilingual glossary, eGlossary, Multilingual Activities on ED, Vocabulary Cards, Success for English Learners worksheets, Leveled Strategies for English Learners, Linguistic Support	ST MATH special projects, Enrichment worksheets, Art of Problem Solving, Leveled assessments
<b>Supplemental Resources</b>			
<b>Technology:</b> <ul style="list-style-type: none"> <li>• Chromebooks • Online math manipulatives</li> </ul> <b>Other:</b> <ul style="list-style-type: none"> <li>• Google Classroom, Google Meets, Schoology, Interactive Workbooks • Illustrative Mathematics • insidemathematics.org • National Library of Virtual Manipulatives</li> </ul>			
<b>Differentiated Student Access to Content: Recommended <i>Strategies &amp; Techniques</i></b>			
<b>Core Resources</b>	<b>Alternate Core Resources <i>IEP/504/At-Risk/ESL</i></b>	<b>ELL Core Resources</b>	<b>Gifted &amp; Talented Core</b>
Deliver instruction utilizing varied learning styles including audio, visual, and tactile/kinesthetic, provide individual instruction as needed, modify assessments and/or rubrics, repeat	Utilize a multi-sensory (VAKT) approach during instruction, provide alternate presentations of skills by varying the method (repetition, simple explanations, additional examples, modeling, etc.), modify test content and/or format, allow students to retake test for additional credit,	Extend time requirements, preferred seating, positive reinforcement, check often for understanding/review, oral/visual directions/prompts when necessary, supplemental materials including use of an online bilingual dictionary, and modified assessment and/or rubric.	Create an enhanced set of introductory activities, integrate active teaching/learning opportunities, incorporate authentic components, propose interest-based extension activities, and connect student to related

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	provide additional times and preferential seating as needed, review, restate and repeat directions, provide study guides, and/or break assignments into segments of shorter tasks.		
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<b>NJSLS CAREER READINESS, LIFE LITERACIES &amp; KEY SKILLS</b>	<b>Disciplinary Concept(s): Critical Thinking &amp; Problem-Solving</b>		
	<b>Core Ideas:</b>	The ability to solve problems effectively begins with gathering data, seeking resources, and applying critical thinking skills.	
	<b>Performance Expectation/s:</b>	<b>9.4.5.CT.4:</b> Apply critical thinking and problem-solving strategies to different types of problems such as personal, academic, community and global	
	<b>Career Readiness, Life Literacies, &amp; Key Skills Practices</b>		
	<p>Act as a responsible and contributing community member and employee.            Attend to financial well-being.            Consider the environmental, social and economic impacts of decisions.            Demonstrate creativity and innovation.            Utilize critical thinking to make sense of problems and persevere in solving them.            Model integrity, ethical leadership and effective management.            Plan education and career paths aligned to personal goals.            Use technology to enhance productivity, increase collaboration and communicate effectively.            Work productively in teams while using cultural/global competence.</p>		

New Jersey Legislative Statutes and Administrative Code  
(place an "X" before each law/statute if/when present within the curriculum map)

Amistad Law: <i>N.J.S.A. 18A 52:16A-88</i>		Holocaust Law: <i>N.J.S.A. 18A:35-28</i>		LGBT and Disabilities Law: <i>N.J.S.A. 18A:35-4.35</i>	<b>X</b>	Diversity & Inclusion: <i>N.J.S.A. 18A:35-4.36a</i>	<b>X</b>	Standards in Action: <i>Climate Change</i>
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