Grade 1 Mathematics	September
Unit 9 Measurement	2022

Trimester	Unit Title	<b>Recommended</b> Instructional Days					
3	3 Measurement 8 - 12 Days						
Domain							
Strand:							
1.MD.A.1 Order three objects by length; compare	the lengths of two objects indirectly by using a third object.						
1.MD.A.2 Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps.							
O 1.MD.B.3 Tell and write time in hours and half-ho	ours using analog and digital clocks.						
Major Cluster	O Additional Cluster						
<b>Progress Indicator:</b> Tests        Homework        Classwork        Projects        Formative assessments       Summative assessments							
Mathematical Practices:							
<ol> <li>Make sense of problems and persevere in solv</li> <li>Reason abstractly and quantitatively.</li> <li>Construct viable arguments and critique the r</li> <li>Model with mathematics.</li> <li>Use appropriate tools strategically.</li> <li>Attend to precision.</li> <li>Look for and make use of structure.</li> <li>Look for and express regularity in repeated reference.</li> </ol>	ving them. eason of others. easoning.						

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

#### **Essential Questions:**

Lesson 9.1: How do you order objects by length?

Lesson 9.2: How can you compare lengths of three objects to put them in order?

Lesson 9.3: How do you measure length using nonstandard units?

Lesson 9.4: How do you use a nonstandard measuring tool to measure length?

Lesson 9.5: How can acting it out help you solve measurement problems?

Lesson 9.6: How do you tell time to the hour on a clock that has only an hour hand?

Lesson 9.7: How do you tell time to the half hour on a clock that has only an hour hand?

Lesson 9.8: How are the minute hand and hour hand different for time to the hour and time to the half hour?

Lesson 9.9: How do you know whether to draw and write time to the hour or half hour?

#### **Essential Understandings:**

Lesson 9.1: Order objects by length

Lesson 9.2: Use the Transitivity Principle to measure indirectly

Lesson 9.3: Measure length using nonstandard units

Lesson 9.4: Make a nonstandard measuring tool to measure length

Lesson 9.5: Solve measurement problems using the strategy act it out

Lesson 9.6: Write times to the hour show on analog clocks

Lesson 9.7: Write times to the half hour shown on analog clocks

Lesson 9.8: Tell times to the hour and half hour using analog and digital clocks Lesson 9.9: Use the hour hand to draw and write times on analog and digital clocks

## **Vocabulary**

- Longest
- Shortest
- Hour hand
- Half hour
- Hour
- Minute Hand
- Minutes

## Suggested Activity Description:

Personal Math Trainer, Tutorial Videos, Vocabulary Game, Reading Grab and Go Activity, Explore and Guided/Independent Practice related to the NJSLS, Evaluation Online Activity, Essential Question Discussion and Check –In, Basic Skills Review, Manipulative Activity, Reteach Activity, Reading Strategies Activity, Success for English Learners Activity, Performance Task

## Interdisciplinary Connections:

**STEM Activity:** In Chapter 9, children extend their understanding of measurement, by using nonstandard units of measure. These same topics are used often in the development of various science concepts and process skills. Help children make the connection between math and science through the S.T.E.M. activities and activity worksheets found at www.thinkcentral. com.

In Chapter 9, children connect math and science with the S.T.E.M. Activity Measuring Up and the accompanying worksheets (pages 107 and 108). Through this S.T.E.M. Activity, children will connect the GO Math! Chapter 9 concepts and skills with various measurement skills, including sorting objects by length. It is recommended that this S.T.E.M. Activity be used after Lesson 9.3.

## Science:

Have children observe potted plants in the classroom. Discuss what the plants need to grow: air, water, and light, and how they get what they need.
 Have children compare the heights of three plants and arrange them to show shortest to tallest or tallest to shortest.

2. Explain that long ago, sundials were used to tell time by the angle of the shadow cast by the sun. • Have children cut a circle out of poster board and push a pencil at an angle through the center of the circle. Find a sunny spot outdoors and push the pencil into the soil. Every hour, mark the place on the poster board where the shadow falls. Discuss what the sundial shows.

## **Social Studies:**

1. Display pictures of the Statue of Liberty. Explain that for more than 100 years, it has been a symbol of liberty for people coming to the United States from other countries. • Cut a 4-foot long piece of string and attach it to a wall in the classroom. Tell children that the statue's nose is about as long as the string. Ask children to name classroom objects that are longer and shorter than the string.

2. Have children make a list of five activities they might do on a Saturday and the time each activity begins. Examples are meals, errands, and playing sports. • Have partners trade schedules and ask questions about each other's schedules. What do you do at 4 o'clock? What do you do just before you eat lunch?

## Language Arts:

1. Vocabulary Builder pg. 511 - **Visualize It** Have children sort the review words and record them in the boxes. Have children share how they sorted the words and tell how they decided where to place each one. **Understand Vocabulary** You may want to share the following with children.

- An object is shorter when it has less length than another object.
- An object is longer when it has more length than another object.
- 2. The Dog Show (From the Grab and Go Differentiated Center Kit)
- 3. Treasure Hunts (From the Grab and Go Differentiated Center Kit)
- 4. Time to Play (From the Grab and Go Differentiated Center Kit)

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Spot Light On: Teach appropriate language around asking questions about other students' cultures. One student isn't a representative of their entire culture, but they can share their specific experiences					
Social and Emot	tional Learning: etencies	Social and Emotional Learning: Sub-Competencies			
SEL Competencies: • Self- awareness • Social Awareness • Self- Management • Relationship Skills • Responsible Decision-Making		<ul> <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>			
Assessments To show evidence of meeting the s	s (Formative) tandard/s, students will successfully within:	Assessments (Summative) To show evidence of meeting the standard/s, students will successfully complete:			
engage	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	comp	lete:		
Formative Assessments: • Teacher Observations • Exit Tickets Journals • Homework/Classwork • Te	• Quizzes • Self Assessments • Math eacher created assessments	Benchmarks & Summative Assessme           Chapter/Unit Assessments • Standard           Project-based Assessments	nts: hized Tests • District Assessments •		
Formative Assessments: • Teacher Observations • Exit Tickets Journals • Homework/Classwork • Te	Quizzes • Self Assessments • Math eacher created assessments     Differentiated Studer Teaching and Learnin	Comp Benchmarks & Summative Assessme Chapter/Unit Assessments • Standard Project-based Assessments at Access to Content: ag <u>Resources/Materials</u>	nts: hized Tests • District Assessments •		
Formative Assessments: • Teacher Observations • Exit Tickets Journals • Homework/Classwork • Te Core Resources	• Quizzes • Self Assessments • Math eacher created assessments Differentiated Studer Teaching and Learnin Alternate Core Resources IEP/504/At-Risk/ESL	comp         Benchmarks & Summative Assessment         Chapter/Unit Assessments       • Standard         Project-based Assessments       • Standard         Int Access to Content:       g         g       Resources/Materials         ELL       Core Resources	Inte: In		

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Learn360, TeacherTube, BrainPOP, Freckle, LearnZillion, MobyMax, ST Math, Edulastic, Achieve the Core, Desmos					
Supplemental Resources					

**Technology:** • Chromebooks • Online math manipulatives

# Other:

 Google Classroom, Google Meets, Schoology, Interactive Workbooks • Illustrative Mathematics • insidemathematics.org • National Library of Virtual Manipulatives

Differentiated Student Access to Content: Recommended <u>Strategies &amp; Techniques</u>								
Core Resources	Alternate Core Resources IEP/504/At-Risk/ESL	ELL Core Resources	Gifted & Talented Core					
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, 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.	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					

	Disciplinary Concept(s): Information and Media Literacy					
NJSLS CAREER	Core Ideas:	Digital tools can be used to display data in various ways.				
READINESS, LIFE LITERACIES & KEY	Performance Expectation/s:	<b>9.4.2.TL.4</b> Navigate a virtual space to build context and describe the visual content.				
SKILLS	Career Readiness, Life Literacies, & Key Skills Practices					
	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.					

New Jersey Legislative Statutes and Administrative Code (place an "X" before each law/statute if/when present within the curriculum map)								
Amistad Law: N.J.S.A. 18A 52:16A-88		Holocaust Law: N.J.S.A. 18A:35-28		LGBT and Disabilities Law: N.J.S.A. 18A:35-4.35	X	Diversity & Inclusion: <i>N.J.S.A. 18A:35-4.36a</i>		Standards in Action: <i>Climate Change</i>