

| Trimester | Unit Title | Recommended Instructional Days |
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| 3 | Length in Metric Units | 10 - 12 Days |
| Domain | | |
| <p>Strand:</p> <ul style="list-style-type: none"> 2.MD.A.1-Measure and estimate lengths in standard units. Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes. 2.MD.A.2- Measure and estimate lengths in standard units. Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen. 2.MD.A.3- Measure and estimate lengths in standard units. Estimate lengths using units of inches, feet, centimeters, and meters. 2.MD.A.4- Measure and estimate lengths in standard units. Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit. 2.MD.B.5- Relate addition and subtraction to length. Use addition and subtraction. Use addition and subtraction within 100 to solve word problems involving length that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem. 2.MD.B.6- Relate addition and subtraction to length. 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> Major Cluster Supporting Cluster Additional Cluster </p> | | |
| <p>Progress Indicator: ◊ Tests ◊ Homework / Classwork ◊ Projects ◊ Formative assessments ◊ Summative 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 9.1- How do you use a centimeter model to measure the lengths of objects?
Lesson 9.2- How do you use known lengths to estimate unknown lengths?
Lesson 9.3- How do you use a centimeter ruler to measure lengths?
Lesson 9.4- How can drawing a diagram help when solving problems about lengths?
Lesson 9.5- How is measuring in meters different from measuring in centimeters?
Lesson 9.6- How do you estimate the lengths in objects in meters?
Lesson 9.7- How do you find the difference between the lengths of two objects?

Essential Understandings:

- Lesson 9.1- Use a concrete model to measure the lengths of objects in centimeters.
Lesson 9.2- Estimate lengths of objects in centimeters by comparing them to known lengths.
Lesson 9.3- Measure lengths of objects to the nearest centimeter using a centimeter ruler.
Lesson 9.4- Solve problems involving adding and subtracting lengths by using the strategy draw a diagram.
Lesson 9.5- Measure the lengths of objects in both centimeters and meters to explore the inverse relationship between size and number of units.
Lesson 9.6- Estimate the lengths of objects in meters.
Lesson 9.7- Measure and then find the difference in the lengths of two objects.

Vocabulary

- centimeter
- meter

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 develop their understanding of length in metric units, by measuring with a centimeter rules. These same topics are used often in the development of various science concepts and process skills, such as finding the actual length of a desk.

Help children make the connection between math and science through the S.T.E.M. activities and activity worksheets found at Think Central.

In Chapter 9, children connect math and science with the S.T.E.M. Activity Units to Know 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 lengths of different objects, including finding the length of a paperclip. It is recommended that this S.T.E.M. Activity be used after Lesson 9.5.

Science:

1. Explain to children that when scientists list characteristics of an animal, they often list the average length of the adult animal. • Tell children that the length of a male southern koala is about 78 centimeters and the length of a female southern koala is about 72 centimeters. • Have children write a number sentence to find the difference between the two lengths. • Repeat the activity for the normal wingspans of cardinals and blue jays, which are 27 centimeters and 39 centimeters respectively.

Social Studies:

1. Discuss how accurate measuring is important to many jobs, such as those in construction. • Explain that when a builder places a window in a wall, the window needs to be the correct size to match the opening in the wall. • Have children work in small groups. Ask each small group to describe a situation in which accurate measuring is important. • Have children share their descriptions with the class.

Language Arts:

1. Vocabulary Builder pg. 601- **Visualize It** Children should use the words they know about measurement to describe in the boxes how to measure the length of an object. Encourage children to write about measuring the lengths of two different objects. **Understand Vocabulary** You may want to remind children that when you estimate length you tell about how long an object is.

2. Nature Walk -(From the Grab and Go Differentiated Center Kit)

3. How Long? -(From the Grab and Go Differentiated Center Kit)

4. A Trip to the Pond - (From the Grab and Go Differentiated Center Kit)

Spot Light On: Acknowledge every students comment or response even if it's incorrect

| Social and Emotional Learning: Competencies | | Social and Emotional Learning: Sub-Competencies | |
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| SEL Competencies: <ul style="list-style-type: none"> • Self- awareness • Social Awareness • Self- Management • Relationship Skills • Responsible Decision-Making | | <ul style="list-style-type: none"> • Recognizing the importance of self-confidence in handling daily tasks and challenges. • Demonstrate an awareness of the expectations for social interactions in a variety of ways. • Demonstrate an understanding of the need for mutual respect when viewpoints differ. • Identify and apply ways to persevere through alternative methods to achieve goals. • Utilize positive communication and social skills to interact effectively with others. • Develop, implement, and model effective problem solving and critical thinking skills. | |
| Assessments (Formative) <i>To show evidence of meeting the standard/s, students will successfully engage within:</i> | | Assessments (Summative) <i>To show evidence of meeting the standard/s, students will successfully complete:</i> | |
| Formative Assessments: • Teacher Observations • Exit Tickets • Quizzes • Self Assessments • Math Journals • Homework/Classwork • Teacher created assessments | | Benchmarks & Summative Assessments: Chapter/Unit Assessments • Standardized Tests • District Assessments • Project-based Assessments | |
| Differentiated Student Access to Content: Teaching and Learning <u>Resources/Materials</u> | | | |
| Core Resources | Alternate Core Resources <i>IEP/504/At-Risk/ESL</i> | ELL Core Resources | Gifted & Talented Core Resources |
| Go Math Workbook, IXL, ST MATH 60 minutes a week, Personal Math Trainer, Math on the Spot Videos, My HRW, Khan Academy, Illustrative Mathematics, Learn360, TeacherTube, BrainPOP, Freckle, LearnZillion, MobyMax, ST Math, Edulastic, Achieve the | Reteaching worksheets, Skill building workbook, Math manipulatives, Leveled practice worksheets | Dictionary for native language, Video tutorial in native language, Success for English Learners worksheets, Leveled Strategies for English Learners, Linguistic Support | ST Math special projects, G& T tasks, Enrichment worksheets, Art of Problem Solving, Leveled assessments |

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| Core, Desmos | | | |
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| Supplemental Resources |
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Technology:
• Chromebooks • Online math manipulatives

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

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| Differentiated Student Access to Content: Recommended <i>Strategies & Techniques</i> |
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| Core Resources | Alternate Core Resources <i>IEP/504/At-Risk/ESL</i> | ELL Core Resources | Gifted & Talented Core |
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| 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 |

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| NJSLS CAREER READINESS, LIFE | Disciplinary Concept(s): Technology Literacy | |
| | Core Ideas: | Digital tools can be used to display data in various ways. |
| | Performance Expectation/s: | 9.4.2.TL.4 Navigate a virtual space to build context and describe the visual |

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| LITERACIES & KEY SKILLS | | content. |
| | Career Readiness, Life Literacies, & Key Skills Practices | |
| | <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> | |

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| <p>New Jersey Legislative Statutes and Administrative Code (place an "X" before each law/statute if/when present within the curriculum map)</p> | | | | | |
| 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> | X | Diversity & Inclusion: <i>N.J.S.A. 18A:35-4.36a</i> | Standards in Action: <i>Climate Change</i> |