

# Unit 4 (IReady) Length (Measurement, Addition and Subtraction, and Line Plots)

Content Area: **Mathematics**  
Course(s): **Mathematics 2**  
Time Period: **March**  
Length: **43 Instructional Days**  
Status: **Published**

## Unit Overview

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In unit 4, students will learn to:

- Use a ruler to measure the length of an object.
- Choose the correct tool for measuring an object.
- Measure the same object using different units.
- Estimate the length of an object.
- Compare lengths to tell which of two objects is longer and how much longer that object is.
- Add and subtract lengths to solve problems.
- Add and subtract lengths on a number line.
- Measure lengths and show data on a line plot.

## Priority Standards

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|-------------|--|
| MATH.2.M.A  | Measure and estimate lengths in standard units |
| MATH.2.M.B  | Relate addition and subtraction to length      |
| MATH.2.DL.B | Represent and interpret data                   |

## Learning Targets

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- I can describe how the two measurements relate to the size of the unit chosen.
- I can estimate lengths using units of inches, feet, centimeters, and meters.
- I can generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object.
- I can measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.
- I can measure the length of an object twice, using length units of different lengths for the two measurements.

- I can measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.
- I can 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.
- I can show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units.
- I can use addition and subtraction within 100 to solve word problems involving lengths that are given in the same unit.

## **Essential Questions**

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- How can I use measurement in my daily life?
- How can I use number lines and data points to plot measurements?
- What careers use measurement often?
- Why is being able to measure objects a helpful skill?

## **Materials and Resources**

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- Additional Math Journal
- Base-10 blocks
- Data Math Games
- Digital Clock Template
- Geoboards
- Non-standard units of measurement
- Ready Math Program
- Student Judy Clocks
- Telling Time Math Games

## **Unit Assessments (Required)**

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- Lesson Quizzes
- Mid-Unit Assessment
- My Learning Path weekly progress
- Unit Assessment

## **Learning Plan (Skills and Activities)**

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### **IReady Unit 4 Length**

### **(Measurement, Addition and Subtraction, and Line Plots)**

| <u>Time Frame</u>                    | <u>Lesson</u>                             | <u>Standard(s)</u>  | <u>Target</u>  |
|--------------------------------------|---|---|--|
| IReady Unit 4<br><br>(About 40 Days) | Lesson 20 (6 Days)                        | Standard:<br><br>2.M.A ~ Measure and estimate lengths in standard units | Target:<br><br>I can measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes. |
|                                      | Lesson 21 (5 days)                        | Standard:<br><br>2.M.A ~ Measure and estimate lengths in standard units | Target:<br><br>I can measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes. |
|                                      | Lesson 22 (5 days)                        | Standard:<br><br>2.M.A ~ Measure and estimate lengths in standard units | Target:<br><br>I can measure the length of an object twice, using length units of different lengths for the two measurements.                                |
|                                      | Lesson 23 (5 days)                        | Standard:<br><br>2.M.A ~ Measure and estimate lengths in standard units | Target:<br><br>I can describe how the two measurements relate to the size of the unit chosen.  |
|                                      | Understand Measurement in Different Units | Standard:<br><br>2.M.A ~ Measure and estimate lengths in standard units | Target:<br><br>I can estimate lengths using units of   |

|                                  |  |   |
|----------------------------------|--|---|
| Estimate and Measure Length      | 2.M.A ~ Measure and estimate lengths in standard units   | inches, feet, centimeters, and meters.  |
| Lesson 24 (5 Days)               | Standard:  | Target:   |
| Compare Lengths                  | 2.M.A ~ Measure and estimate lengths in standard units   | I can measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.   |
| Lesson 25 (5 Days)               | Standard:  | Target:   |
| Add and Subtract Lengths         | 2.M.B ~ Relate addition and subtraction to length  | I can use addition and subtraction within 100 to solve word problems involving lengths that are given in the same unit.   |
| Lesson 26 (5 Days)               | Standard:  | Target:   |
| Add and Subtract on a Numberline | 2.M.B ~ Relate addition and subtraction to length  | I can 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.  |
| Lesson 27 (5 Days)               | Standard:  | Target:   |
| Read and Make Line Plots         | 2.M.A ~ Measure and estimate lengths in standard units<br><br>2.DL.B. ~ Represent and interpret data | I can generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object.<br><br>I can show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units. |

## **Interdisciplinary Connections**

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**Connections to Reading:** Apply comprehension strategies to solve word problems. Incorporate literature relating to the math skill in lesson, such as, books on time.

**Connections to Writing:** Students write descriptions of composite shapes they have made.

**Connections to Science:** Incorporate time in experiments/investigations.

## **Strategies for Multilingual Learners**

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- Communicating High Expectations for Each Student to Close the Achievement Gap
- Establishing & Maintaining Effective Relationships in a Student Centered Classroom
- Helping Students Engage in Cognitively Complex Tasks
- Helping Students Examine their Reasoning
- Helping Students Practice Strategies, Skills, & Processes
- Helping Students Process New Content
- Helping Students Revise Knowledge
- Identifying Critical Content from the Standards
- Organizing Students to Interact with Contact
- Previewing New Content
- Providing Feedback & Celebrating Success
- Reviewing Content
- Using Engagement Strategies
- Using Formative Assessment to Track Progress
- Using Questions to Help Students Elaborate on Content

## **21st Century Skills or Career Ready Practices**

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- CRP1. Act as a responsible and contributing citizen and employee.
- CRP10. Plan education and career paths aligned to personal goals.
- CRP11. Use technology to enhance productivity.
- CRP2. Apply appropriate academic and technical skills.

- CRP4. Communicate clearly and effectively and with reason.
- CRP6. Demonstrate creativity and innovation.
- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.

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| WRK.9.1.2.CAP.1  | Make a list of different types of jobs and describe the skills associated with each job.  |
| TECH.9.4.2.CT.3  | Use a variety of types of thinking to solve problems (e.g., inductive, deductive).  |
| TECH.9.4.2.TL.3  | Enter information into a spreadsheet and sort the information.  |
| TECH.9.4.2.IML.1 | Identify a simple search term to find information in a search engine or digital resource.   |
| TECH.9.4.2.IML.2 | Represent data in a visual format to tell a story about the data (e.g., 2.MD.D.10).   |
| TECH.9.4.2.IML.4 | Compare and contrast the way information is shared in a variety of contexts (e.g., social, academic, athletic) (e.g., 2.2.2.MSC.5, RL.2.9). |

## Strategies for Students in Need of Intervention

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- Provide a list of keywords in word problems. For example: "In all, altogether means addition"
- Small Group Instruction based on strategy
- Small group instruction for Fact Fluency
- Small group instruction for word problems
- Extended pacing of lessons
- Hands on manipulatives
- Provide grid paper
- Reduce the amount of problems
- Small Group Instruction to extend concept for Enrichment
- Use of a number line
- Use of approaching level materials/assignments
- Use of hundreds chart
- Use of visual aids for vocabulary building

## Strategies for Enrichment

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- Small Group Instruction to extend concept for Enrichment

## Technology Integration

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| <b>Website Name</b> | <a href="http://www.brainden.com">www.brainden.com</a>         |
| Math playground     | <a href="http://www.adaptedmind.com">www.adaptedmind.com</a>   |
| Brain Den           | <a href="http://www.youtube.com">www.youtube.com</a>           |
| Fun brain           | <a href="http://www.mathgametime.com">www.mathgametime.com</a> |
| Reflex Math         | <a href="http://www.reflexmath.com">www.reflexmath.com</a>     |

- . 8.1.2.A.1 Identify the basic features of a digital device and explain its purpose.

- 8.1.2.A.4 Demonstrate developmentally appropriate navigation skills in virtual environments (i.e. games, museums).