

Unit 7 Reveal Grade 2

Content Area: **Math**
 Course(s): **Language Arts, Art**
 Time Period: **March**
 Length: **34weeks**
 Status: **Published**

Unit Overview

UNIT 7 PLANNER

Measure and Compare Lengths

PACING: 17 days

LESSON	MATH OBJECTIVE	LANGUAGE OBJECTIVE	SOCIAL AND EMOTIONAL LEARNING OBJECTIVE	LESSON	KEY VOCABULARY
Unit Opener <i>Which Path Is the Shortest?</i> Students develop ways to use nonstandard measurement concepts to determine which path is the shortest.					
7-1	Measure Length with Inches	Students measure the length of objects in inches.	Students talk about measuring the length of objects in inches using the term <i>one end</i> .	7-1	Math Terms inch length unit
7-2	Measure Length with Feet and Yards	Students measure the length of objects in feet and yards.	Students explain how to measure the length of objects in feet and yards using <i>could</i> , <i>should</i> , and <i>would</i> .	7-2	foot/feet yard yardstick
7-3	Compare Lengths Using Customary Units	Students determine the difference in length of two objects measured with the same unit.	Students talk about determining the difference in length of two objects measured with the same unit.	7-3	customary unit
7-4	Relate Inches, Feet, and Yards	Students explain the relationships between inches, feet, and yards.	Students talk about the relationships between inches, feet, and yards.	7-4	foot/feet inch yard
7-5	Estimate Length Using Customary Units	Students use everyday objects with lengths similar to inches and feet to estimate lengths.	Students explain how to use everyday objects with lengths similar to inches and feet to estimate length using <i>might</i> and <i>instead of</i> .	7-5	estimate
7-6	Measure Length with Centimeters and Meters	Students measure the length of objects in centimeters and meters.	Students talk about measuring the length of objects in centimeters and meters.	7-6	centimeter meter meterstick
7-7	Compare Lengths Using Metric Units	Students determine the difference in length of two objects measured with the same unit.	Students discuss determining the difference in length of two objects measured in the same unit with the verb <i>use</i> .	7-7	metric unit
7-8	Relate Centimeters and Meters	Students explain the relationship between centimeters and meters.	Students talk about the relationship between centimeters and meters using <i>related</i> and <i>make more sense</i> .	7-8	centimeter meter
Math Probe: Relating Measurement Determine the unit used to measure objects.					
7-9	Estimate Length Using Metric Units	Students use everyday objects with lengths similar to centimeters and meters to estimate length.	Students explain how to use everyday objects to estimate length using <i>might</i> , <i>helpful</i> , and <i>make sense</i> .	7-9	estimate
7-10	Solve Problems Involving Length	Students solve addition and subtraction word problems involving length.	Students talk about solving addition and subtraction problems involving length using <i>some</i> and <i>use</i> .	7-10	length
7-11	Solve More Problems Involving Length	Students use number lines to solve addition and subtraction word problems involving length.	Students explain how to solve word problems involving length using <i>some</i> .	7-11	length
Unit Review					
Fluency Practice					
Performance Task					
Unit Assessment					

1A Unit 7 • Measure and Compare Lengths

Enduring Understandings

See Above

Essential Questions

How can I estimate and measure lengths in standard units?

Instructional Strategies and Learning Activities

LESSON 7-1

Measure Length with Inches

Learning Target

- I can measure length in inches.

Standards

- Major
- Supporting
- Additional

Content

- 2.MD.A.1 Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.

Math Practices and Processes

- MPP Attend to precision.
- MPP Use appropriate tools strategically.

Focus

Content Objective <ul style="list-style-type: none">Students measure the length of objects in inches.	Language Objectives <ul style="list-style-type: none">Students talk about measuring the length of objects in inches using the term one end.To cultivate conversation, ELs participate in MLR8: Discussion Supports.	SEL Objective <ul style="list-style-type: none">Students recognize and work to understand the emotions of others and practice empathetic responses.
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Coherence

Previous <ul style="list-style-type: none">Students used non-standard units to measure length (Grade 1).Students described patterns when counting by 1s (Unit 3).	Now <ul style="list-style-type: none">Students use a ruler to measure the length of objects in inches.	Next <ul style="list-style-type: none">Students measure the length of objects in feet and yards (Unit 7).Students generate data by measuring length using rulers marked with halves and fourths of an inch (Grade 3).
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Rigor

Conceptual Understanding <ul style="list-style-type: none">Students understand that a ruler is a standard tool for measuring length. <p><i>Conceptual understanding is not a targeted element of rigor for this standard.</i></p>	Procedural Skill & Fluency <ul style="list-style-type: none">Students build their measurement skills as they measure length directly with a ruler.	Application <ul style="list-style-type: none">Students begin to apply their understanding of measurement by measuring a variety of real-world objects. <p><i>Application is not a targeted element of rigor for this standard.</i></p>
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LESSON 7-2

Measure Length with Feet and Yards

Learning Target

- I can measure length in feet and yards.

Standards ♦ Major ▲ Supporting ● Additional

Content

- ◊ **2.MD.A.1** Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.

Math Practices and Processes

MPP Reason abstractly and quantitatively.

MPP Use appropriate tools strategically.

Focus

Content Objective

- Students measure the length of objects in feet and yards.

Language Objectives

- Students explain how to measure the length of objects in feet and yards using *could*, *should*, and *would*.
- To support optimizing output, ELs participate in MLR2: Compare and Connect.

SEL Objective

- Students demonstrate self-awareness of personal strengths and areas of challenge in mathematics.

Coherence

Previous

- Students used nonstandard units to measure length (Grade 1).
- Students measured length in inches (Unit 7).

Now

- Students use a ruler to measure the length of objects in feet and yards.

Next

- Students find the difference in lengths of two objects (Unit 7).
- Students generate data by measuring length using rulers marked with halves and fourths of an inch (Grade 3).

Rigor

Conceptual Understanding

- Students understand that a ruler and yardstick are standard tools for measuring length.

Conceptual understanding is not a targeted element of rigor for this standard.

Procedural Skill & Fluency

- Students build their measurement skills as they measure length directly with a ruler or yardstick.

Application

- Students begin to apply their understanding of measurement by measuring a variety of real-world objects.

Application is not a targeted element of rigor for this standard.

LESSON 7-3

Compare Lengths Using Customary Units

Learning Target

- I can compare lengths using customary units.

Standards ♦ Major ▲ Supporting ● Additional

Content

- ♦ **2.MD.A.4** Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.

Math Practices and Processes

MPP Construct viable arguments and critique the reasoning of others.

MPP Use appropriate tools strategically.

Focus

Content Objective	Language Objectives	SEL Objective
<ul style="list-style-type: none"> Students determine the difference in length of two objects measured with the same unit. 	<ul style="list-style-type: none"> Students talk about determining the difference in length of two objects measured with the same unit. To support cultivating conversation, ELs participate in MLR3: Critique, Correct, and Clarify. 	<ul style="list-style-type: none"> Students employ techniques that can be used to help maintain focus and manage reactions to potentially frustrating situations.

Coherence

Previous	Now	Next
<ul style="list-style-type: none"> Students compared the length of two objects by using a third object (Grade 1). Students measured length in inches, feet, and yards (Unit 7). 	<ul style="list-style-type: none"> Students compare length using customary units. 	<ul style="list-style-type: none"> Students relate inches, feet, and yards (Unit 7). Students generate data by measuring length using rulers marked with halves and fourths of an inch (Grade 3).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
<ul style="list-style-type: none"> Students compare the length of two objects by subtracting the lengths and expressing the difference in terms of the measurement unit. <p><i>Conceptual understanding is not a targeted element of rigor for this standard.</i></p>	<ul style="list-style-type: none"> Students develop their measurement and computation skills as they measure and compare two objects. 	<ul style="list-style-type: none"> Students apply their understanding of measurement by measuring a variety of real-world objects. <p><i>Application is not a targeted element of rigor for this standard.</i></p>

LESSON 7-4

Relate Inches, Feet, and Yards

Learning Target

- I can explain the relationships between inches, feet, and yards.

Standards • Major • Supporting • Additional

Content

- 2.MD.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.

Math Practices and Processes

MPP Reason abstractly and quantitatively.

MPP Make sense of problems and persevere in solving them.

Focus

Content Objective	Language Objectives	SEL Objective
<ul style="list-style-type: none"> Students explain the relationships between inches, feet, and yards. 	<ul style="list-style-type: none"> Students talk about the relationships between inches, feet, and yards using the verb <i>relate</i>. To support optimizing output, ELs participate in MLRT: Stronger and Clearer Each Time. 	<ul style="list-style-type: none"> Students collaborate with peers and contribute to group effort to achieve a collective mathematical goal.

Coherence

Previous	Now	Next
<ul style="list-style-type: none"> Students used nonstandard units to measure length (Grade 1). Students measured length in inches, feet, and yards (Unit 7). 	<ul style="list-style-type: none"> Students use reasoning skills to examine the relationships among inches, feet, and yards. 	<ul style="list-style-type: none"> Students estimate length in inches, feet, and yards (Unit 7). Students generate data by measuring length using rulers marked with halves and fourths of an inch (Grade 3).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
<ul style="list-style-type: none"> Students understand the relationships between inches, feet, and yards. They understand that larger units, such as yards, may be subdivided into smaller units, such as inches and feet. 	<ul style="list-style-type: none"> Students develop their measurement skills as they measure objects twice, using different units for each measurement. 	<ul style="list-style-type: none"> Students apply their understanding of measurement by measuring a variety of real-world objects. <p><i>Application is not a targeted element of rigor for this standard.</i></p>

LESSON 7-5

Estimate Length Using Customary Units

Learning Target

- I can use everyday items to help me estimate length in customary units.

Standards • Major • Supporting • Additional

Content

- 2.MD.A.3 Estimate lengths using units of inches, feet, centimeters, and meters.

Math Practices and Processes

MPP Attend to precision.

MPP Model with mathematics.

Focus

Content Objective

- Students use everyday objects with lengths similar to inches and feet to estimate length.

Language Objectives

- Students explain how to use everyday objects with lengths similar to inches and feet to estimate length using *might* and *instead of*.
- To support sense-making, ELs participate in MLR2: Collect and Display.

SEL Objective

- Students identify and discuss the emotions experienced during math learning.

Coherence

Previous

- Students measured length using nonstandard units of measure (Grade 1).
- Students measured length in inches, feet, and yards (Unit 7).

Now

- Students estimate length using customary units.

Next

- Students measure length with centimeters and meters (Unit 7).
- Students measure and estimate liquid volumes and masses of objects using standard units (Grade 3).

Rigor

Conceptual Understanding

- Students build on their understanding of how to estimate the lengths of objects in customary units by comparing them to the lengths of real-world items they already know.

Procedural Skill & Fluency

- Students build their measurement skills as they estimate length in customary units using everyday items that are similar in length to those units.

Procedural skill & fluency is not a targeted element of rigor for this standard.

Application

- Students apply their understanding of measurement by estimating the length of real-world objects.

Application is not a targeted element of rigor for this standard.

LESSON 7-6

Measure Length with Centimeters and Meters

Learning Target

- I can measure length with centimeters and meters.

Standards ♦ Major ▲ Supporting ■ Additional

Content

- ◊ **2.MD.A.1** Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.

Math Practices and Processes

MPP Construct viable arguments and critique the reasoning of others.

MPP Use appropriate tools strategically.

Focus

Content Objective	Language Objectives	SEL Objective
<ul style="list-style-type: none"> Students measure the length of objects in centimeters and meters. 	<ul style="list-style-type: none"> Students talk about measuring the length of objects in centimeters and meters using the verb <i>notice</i>. To support maximizing cognitive and linguistic meta-awareness, ELs participate in MLR8: Discussion Supports. 	<ul style="list-style-type: none"> Students discuss how a rule or routine can help develop mathematical skills and knowledge and be responsible contributors.

Coherence

Previous	Now	Next
<ul style="list-style-type: none"> Students used non-standard units to measure length (Grade 1). Students measured length in inches, feet, and yards (Unit 7). 	<ul style="list-style-type: none"> Students measure the length of objects in centimeters and meters. 	<ul style="list-style-type: none"> Students find the difference in length between two objects (Unit 7). Students generate data by measuring lengths using rulers marked with halves and fourths of an inch (Grade 3).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
<ul style="list-style-type: none"> Students understand that a ruler and meterstick are standard tools for measuring length. <p><i>Conceptual understanding is not a targeted element of rigor for this standard.</i></p>	<ul style="list-style-type: none"> Students build their measurement skills as they measure length directly with a ruler or meterstick. 	<ul style="list-style-type: none"> Students begin to apply their understanding of measurement by measuring a variety of real-world objects. <p><i>Application is not a targeted element of rigor for this standard.</i></p>

LESSON 7-7

Compare Lengths Using Metric Units

Learning Target

- I can compare lengths using metric units.

Standards ♦ Major ▲ Supporting ■ Additional

Content

- ◊ **2.MD.A.4** Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.

Math Practices and Processes

MPP Construct viable arguments and critique the reasoning of others.

MPP Use appropriate tools strategically.

Focus

Content Objective	Language Objectives	SEL Objective
<ul style="list-style-type: none"> Students determine the difference in length of two objects measured with the same unit. 	<ul style="list-style-type: none"> Students discuss determining the difference in length of two objects measured in the same unit with the verb <i>use</i>. To support optimizing output, ELs participate in MLR7: Compare and Connect. 	<ul style="list-style-type: none"> Students practice strategies for persisting at a mathematical task, such as setting a small goal or setting timers for remaining focused.

Coherence

Previous	Now	Next
<ul style="list-style-type: none"> Students compared the lengths of two objects by using a third object (Grade 1). Students measured length in centimeters and meters (Unit 7). 	<ul style="list-style-type: none"> Students compare lengths using metric units. 	<ul style="list-style-type: none"> Students relate centimeters and meters (Unit 7). Students generate data by measuring length using rulers marked with halves and fourths of an inch (Grade 3).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
<ul style="list-style-type: none"> Students compare the lengths of two objects by subtracting the lengths and expressing the difference in terms of the measurement unit. <p><i>Conceptual understanding is not a targeted element of rigor for this standard.</i></p>	<ul style="list-style-type: none"> Students use subtraction to determine how much longer one object is than the other. 	<ul style="list-style-type: none"> Students apply their understanding of measurement by measuring and comparing a variety of real-world objects. <p><i>Application is not a targeted element of rigor for this standard.</i></p>

LESSON 7-8

Relate Centimeters and Meters

Learning Target

- I can explain the relationship between centimeters and meters.

Standards ♦ Major ▲ Supporting ■ Additional

Content

- ◊ **2.MD.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.

Math Practices and Processes

MPP Reason abstractly and quantitatively.

MPP Make sense of problems and persevere in solving them.

Focus

Content Objective	Language Objectives	SEL Objective
<ul style="list-style-type: none"> • Students explain the relationship between centimeters and meters. 	<ul style="list-style-type: none"> • Students talk about the relationship between centimeters and meters using <i>related</i> and <i>make more sense</i>. • To support sense-making, ELs participate in MLR6: Three Reads. 	<ul style="list-style-type: none"> • Students exchange ideas for mathematical problem solving with a peer, listening attentively and providing thoughtful and constructive feedback.

Coherence

Previous	Now	Next
<ul style="list-style-type: none"> • Students used non-standard units to measure length (Grade 1). • Students measured length in centimeters and meters (Unit 7). 	<ul style="list-style-type: none"> • Students use reasoning skills to examine the relationship between centimeters and meters. 	<ul style="list-style-type: none"> • Students estimate metric lengths (Unit 7). • Students generate data by measuring length using rulers marked with halves and fourths of an inch (Grade 3).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
<ul style="list-style-type: none"> • Students understand the relationship between centimeters and meters, and understand that larger units, such as meters, may be subdivided into smaller units, such as centimeters. 	<ul style="list-style-type: none"> • Students develop their measurement skills as they measure objects twice, using different units for each measurement. 	<ul style="list-style-type: none"> • Students apply their understanding of measurement by measuring a variety of real-world objects. <p><i>Application is not a targeted element of rigor for this standard.</i></p>

LESSON 7-9

Estimate Length Using Metric Units

Learning Target

- I can use everyday items to help me estimate length in metric units.

Standards ♦ Major ▲ Supporting ● Additional

Content

- 2.MD.A.3 Estimate lengths using units of inches, feet, centimeters, and meters.

Math Practices and Processes

- MPP** Look for and express regularity in repeated reasoning.
MPP Model with mathematics.

Focus

Content Objective

- Students use everyday objects with lengths similar to centimeters and meters to estimate length.

Language Objectives

- Students explain how to use everyday objects to estimate length using *might*, *helpful*, and *make sense*.
- To support sense-making, ELs participate in MLR2: Collect and Display.

SEL Objective

- Students demonstrate thoughtful reflection through identifying the causes of challenges and successes while completing a mathematical task.

Coherence

Previous

- Students used non-standard units to measure length (Grade 1).
- Students measured length in centimeters and meters (Unit 7).

Now

- Students estimate length using metric units.

Next

- Students solve problems involving length (Unit 7).
- Students measure and estimate liquid volumes and masses of objects using standard units (Grade 3).

Rigor

Conceptual Understanding

- Students build on their understanding of how to estimate the length of an object in metric units by comparing it to the length of real-world items they already know.

Procedural Skill & Fluency

- Students build their measurement skills as they estimate length in metric units using everyday items that are similar in length to those units.
- Procedural skill & fluency is not a targeted element of rigor for this standard.*

Application

- Students apply their understanding of measurement by estimating the length of real-world objects.
- Application is not a targeted element of rigor for this standard.*

LESSON 7-10

Solve Problems Involving Length

Learning Target

- I can solve problems involving length.

Standards ♦ Major ▲ Supporting ● Additional

Content

- ♦ **2.MD.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.

Math Practices and Processes

- MPP** Reason abstractly and quantitatively.
- MPP** Model with mathematics.

Focus

Content Objective

- Students solve addition and subtraction word problems involving length.

Language Objectives

- Students talk about solving addition and subtraction problems involving length using some and use.
- To support maximizing linguistic and cognitive meta-awareness, ELs participate in MLRS: Co-Craft Questions and Problems.

SEL Objective

- Students set a focused mathematical goal and make a plan for achieving that goal.

Coherence

Previous

- Students used non-standard units to measure length (Grade 1).
- Students estimated and measured length in customary and metric units (Unit 7).

Now

- Students solve problems involving length.

Next

- Students use number lines to solve problems involving length (Unit 7).
- Students add, subtract, multiply, or divide to solve one-step word problems involving masses and volumes given in the same units (Grade 3).

Rigor

Conceptual Understanding

- Students understand that word problems involving length can be modeled with drawings.
- Conceptual understanding is not a targeted element of rigor for this standard.

Procedural Skill & Fluency

- Students use addition and subtraction within 100 to solve problems involving length.
- Procedural skill & fluency is not a targeted element of rigor for this standard.

Application

- Students apply understanding of measurement by solving a variety of real-world problems involving length.

LESSON 7-11

Solve More Problems Involving Length

Learning Target

- I can use a number line to solve problems involving length.

Standards ♦ Major ▲ Supporting ● Additional

Content

- ◊ **2.MD.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.MD.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.

Math Practices and Processes

- MPP** Reason abstractly and quantitatively.
- MPP** Model with mathematics.

Focus

Content Objective	Language Objectives	SEL Objective
<ul style="list-style-type: none"> Students use number lines to solve addition and subtraction word problems involving length. 	<ul style="list-style-type: none"> Students explain how to solve word problems involving length using some. To support maximizing cognitive and linguistic meta-awareness, ELs participate in ML&S: Discussion Supports. 	<ul style="list-style-type: none"> Students collaborate with peers to complete a mathematical task and offer constructive feedback to the mathematical ideas posed by others.

Coherence

Previous	Now	Next
<ul style="list-style-type: none"> Students used a number line to add and subtract numbers (Grade 1). Students estimated and measured lengths in customary and metric units (Unit 7). 	<ul style="list-style-type: none"> Students use a number line to solve problems involving length. 	<ul style="list-style-type: none"> Students represent and solve 3-digit addition equations that require no regrouping (Unit 9). Students solve one-step word problems involving mass and volume (Grade 3).

Rigor

Conceptual Understanding	Procedural Skill & Fluency	Application
<ul style="list-style-type: none"> Students understand that word problems involving length can be represented and solved using number lines. <p><i>Conceptual understanding is not a targeted element of rigor for this standard.</i></p>	<ul style="list-style-type: none"> Students use addition and subtraction within 100 to solve problems involving length. <p><i>Procedural skill & fluency is not a targeted element of rigor for this standard.</i></p>	<ul style="list-style-type: none"> Students apply understanding of measurement by solving a variety of real-world problems involving length.

45A Unit 7 • Measure and Compare Lengths

Integration of Career Readiness, Life Literacies and Key Skills

PFL.9.1.2.CR.1	Recognize ways to volunteer in the classroom, school and community.
PFL.9.1.2.CR.2	List ways to give back, including making donations, volunteering, and starting a business.
PFL.9.1.2. FI.1	Differentiate the various forms of money and how they are used (e.g., coins, bills, checks, debit and credit cards).
PFL.9.1.2.FP.1	Explain how emotions influence whether a person spends or saves.
PFL.9.1.2.FP.3	Identify the factors that influence people to spend or save (e.g., commercials, family, culture, society).

PFL.9.1.2.PB.1	Determine various ways to save and places in the local community that help people save and accumulate money over time.
PFL.9.1.2.PB.2	Explain why an individual would choose to save money.
TECH.9.4.2.CI.1	Demonstrate openness to new ideas and perspectives (e.g., 1.1.2.CR1a, 2.1.2.EH.1, 6.1.2.CivicsCM.2).
TECH.9.4.2.CI.2	Demonstrate originality and inventiveness in work (e.g., 1.3A.2CR1a).
TECH.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).
TECH.9.4.2.CT.3	Use a variety of types of thinking to solve problems (e.g., inductive, deductive).
TECH.9.4.2.DC.3	Explain how to be safe online and follow safe practices when using the internet (e.g., 8.1.2.NI.3, 8.1.2.NI.4).
TECH.9.4.2.DC.6	Identify respectful and responsible ways to communicate in digital environments.
TECH.9.4.2.DC.7	Describe actions peers can take to positively impact climate change (e.g., 6.3.2.CivicsPD.1).
TECH.9.4.2.TL.2	Create a document using a word processing application.
TECH.9.4.2.TL.5	Describe the difference between real and virtual experiences.
TECH.9.4.2.TL.6	Illustrate and communicate ideas and stories using multiple digital tools (e.g., SL.2.5.).
TECH.9.4.2.TL.7	Describe the benefits of collaborating with others to complete digital tasks or develop digital artifacts (e.g., W.2.6., 8.2.2.ED.2).

Technology and Design Integration

CS.K-2.8.1.2.AP.4	Break down a task into a sequence of steps.
CS.K-2.8.1.2.AP.5	Describe a program's sequence of events, goals, and expected outcomes.
CS.K-2.8.1.2.CS.1	Select and operate computing devices that perform a variety of tasks accurately and quickly based on user needs and preferences.
CS.K-2.8.1.2.DA.1	Collect and present data, including climate change data, in various visual formats.
CS.K-2.8.1.2.DA.3	Identify and describe patterns in data visualizations.
CS.K-2.8.1.2.DA.4	Make predictions based on data using charts or graphs.
CS.K-2.8.2.2.ITH.4	Identify how various tools reduce work and improve daily tasks.

Interdisciplinary Connections

LA.RI.2.1	Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.
LA.RI.2.2	Identify the main topic of a multiparagraph text as well as the focus of specific paragraphs within the text.
LA.RI.2.3	Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text.
LA.RI.2.4	Determine the meaning of words and phrases in a text relevant to a grade 2 topic or subject area.
LA.RI.2.5	Know and use various text features (e.g., captions, bold print, subheadings, glossaries, indexes, electronic menus, icons) to locate key facts or information in a text efficiently.
LA.RI.2.6	Identify the main purpose of a text, including what the author wants to answer, explain, or describe.

LA.RI.2.7	Explain how specific illustrations and images (e.g., a diagram showing how a machine works) contribute to and clarify a text.
LA.RI.2.8	Describe and identify the logical connections of how reasons support specific points the author makes in a text.
LA.RI.2.9	Compare and contrast the most important points presented by two texts on the same topic.
LA.RI.2.10	Read and comprehend informational texts, including history/social studies, science, and technical texts, at grade level text complexity proficiently with scaffolding as needed.
LA.W.2.5	With guidance and support from adults and peers, focus on a topic and strengthen writing as needed through self-reflection, revising and editing.
LA.SL.2.1	Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups.
LA.L.2.1	Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.

Differentiation

- Understand that gifted students, just like all students, come to school to learn and be challenged.
- Pre-assess your students. Find out their areas of strength as well as those areas you may need to address before students move on.
- Consider grouping gifted students together for at least part of the school day.
- Plan for differentiation. Consider pre-assessments, extension activities, and compacting the curriculum.
- Use phrases like "You've shown you don't need more practice" or "You need more practice" instead of words like "qualify" or "eligible" when referring to extension work.
- Encourage high-ability students to take on challenges. Because they're often used to getting good grades, gifted students may be risk averse.
- **Definitions of Differentiation Components:**
 - Content – the specific information that is to be taught in the lesson/unit/course of instruction.
 - Process – how the student will acquire the content information.
 - Product – how the student will demonstrate understanding of the content.
 - Learning Environment – the environment where learning is taking place including physical location and/or student grouping

Differentiation occurring in this unit:

Exit Ticket: Use Data to Inform Differentiation

Every lesson closes with an Exit Ticket. Differentiation recommendations reside in the Teacher Edition to make the Exit Ticket data actionable.

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Modifications and Accommodations

Refer to QSAC EXCEL SMALL SPED ACCOMMODATIONS spreadsheet in this discipline.

Modifications and Accommodations used in this unit:

Benchmark Assessments

Benchmark Assessments are given periodically (e.g., at the end of every quarter or as frequently as once per month) throughout a school year to establish baseline achievement data and measure progress toward a standard or set of academic standards and goals.

Schoolwide Benchmark assessments:

Aimsweb benchmarks 3X a year

Linkit Benchmarks 3X a year

DRA

Additional Benchmarks used in this unit:

Reveal Unit assessments

Formative Assessments

Assessment allows both instructor and student to monitor progress towards achieving learning objectives, and can be approached in a variety of ways. **Formative assessment** refers to tools that identify misconceptions, struggles, and learning gaps along the way and assess how to close those gaps. It includes effective tools for helping to shape learning, and can even bolster students' abilities to take ownership of their learning when they understand that the goal is to improve learning, not apply final marks (Trumbull and Lash, 2013). It can include students assessing themselves, peers, or even the instructor, through writing, quizzes, conversation, and more. In short, formative assessment occurs throughout a class or course, and seeks to improve student achievement of learning objectives through approaches that can support specific student needs (Theal and Franklin, 2010, p. 151).

Formative Assessments used in this unit:

Teacher observation

Checklists

Questioning and Discussion

Quizzes

Summative Assessments

summative assessments evaluate student learning, knowledge, proficiency, or success at the conclusion of an instructional period, like a unit, course, or program. Summative assessments are almost always formally graded and often heavily weighted (though they do not need to be). Summative assessment can be used to great effect in conjunction and alignment with formative assessment, and instructors can consider a variety of ways to combine these approaches.

Summative assessments for this unit:

End of Unit assessments

Instructional Materials

See above

Standards

MA.2.MD.A.1	Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.
MA.2.MD.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.
MA.2.MD.A.3	Estimate lengths using units of inches, feet, centimeters, and meters.
MA.2.MD.A.4	Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.
MA.2.MD.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.
MA.2.MD.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.

