

April Gr.5 My Math Unit 11: Measuring and Units of Measurement

Content Area: **Math**
Course(s):
Time Period: **April**
Length: **4-6 Weeks**
Status: **Published**

Unit Overview

This unit explores strategies to measure and use units of measurement.

Enduring Understandings

It is important to remember and apply certain strategies when measuring.

Essential Questions

What strategies can be used to measure and understand units of measure?

Instructional Strategies & Learning Activities

Chapter 11

Pacing Guide

Suggested Pacing

Instruction	14 days
Review/Assessment	2 days
Total*	16 days

*Includes additional time for remediation and differentiation.

Lesson

Objective

**Material &
Manipulatives**

Vocabulary

Lesson 1 <i>pp. 801-806</i> Hands On: Measure with a Ruler	Measure length to the nearest half inch and quarter inch.	<ul style="list-style-type: none"> • inch rulers • paper clips • classroom objects 	length inch
Lesson 2 <i>pp. 807-812</i> Convert Customary Units of Length	Convert measurements of length within the customary system.	<ul style="list-style-type: none"> • inch rulers • classroom objects 	customary system foot inches yard mile convert
Lesson 3 <i>pp. 813-818</i> Problem-Solving Investigation: Use Logical Reasoning	Solve problems by using logical reasoning.		
Lesson 4 <i>pp. 819-824</i> Hands On: Estimate and Measure Weight	Estimate the weight of objects and use a balance to measure the weight of objects.	<ul style="list-style-type: none"> • balances • ounce weights • pound weights • classroom objects 	weight ounces pounds
Lesson 5 <i>pp. 825-830</i> Convert Customary Units of Weight	Convert measurements of weight within the customary system.	<ul style="list-style-type: none"> • Internet access 	weight pound ounces ton
Check My Progress Lesson 6 <i>pp. 833-838</i> Hands On: Estimate and Measure Capacity	Estimate and measure the capacity of liquids.	<ul style="list-style-type: none"> • cup, pint, quart, and gallon containers • water 	capacity pints cups gallons
Lesson 7 <i>pp. 839-844</i> Convert Customary Units of Capacity	Convert measurements of capacity within the customary system.	<ul style="list-style-type: none"> • cup, pint, quart, and gallon containers • water 	capacity pint cup quart fluid ounce gallon

<p>Lesson 8 <i>pp.</i> 845-850 Display Measurement Data on a Line Plot</p>	<p>Display measurement data in fractions of a unit on a line plot and solve real-world problems.</p>	<ul style="list-style-type: none"> • number lines • bar diagrams 	<p>fair share</p>
<p>Lesson 9 <i>pp.</i> 851-856 Hands On: Metric Rulers</p>	<p>Measure the length of objects to the nearest centimeter and millimeter.</p>	<ul style="list-style-type: none"> • inch rulers • centimeter rulers • classroom objects 	<p>centimeter millimeter</p>
<p>Lesson 10 <i>pp.</i> 857-862 Convert Metric Units of Length</p>	<p>Convert measurements of length within the metric system.</p>	<ul style="list-style-type: none"> • centimeter rulers • metersticks 	<p>metric system centimeter millimeter meter kilometer</p>
<p>Check My Progress Lesson 11 <i>pp.</i> 865-872 Hands On: Estimate and Measure Metric Mass</p>	<p>Estimate the mass of objects and use a balance to measure the mass of objects.</p>	<ul style="list-style-type: none"> • balances • gram weights • classroom objects 	<p>mass gram kilogram</p>
<p>Lesson 12 <i>pp.</i> 871-876 Convert Metric Units of Mass</p>	<p>Convert measurements of mass within the metric system.</p>	<ul style="list-style-type: none"> • balances 	<p>mass milligram gram kilogram</p>
<p>Lesson 13 <i>pp.</i> 877-882 Convert Metric Units of Capacity</p>	<p>Convert measurements of capacity within the metric system.</p>	<ul style="list-style-type: none"> • containers labeled liter or milliliter 	<p>liter milliliter</p>

My Review and Reflect

Integration of Career Readiness, Life Literacies and Key Skills

Students will work cooperatively to solve problems. Students will use the smartboard to enhance the learning process.

TECH.9.4.5.DC.4	Model safe, legal, and ethical behavior when using online or offline technology (e.g., 8.1.5.NI.2).
TECH.9.4.5.CT.4	Apply critical thinking and problem-solving strategies to different types of problems such as personal, academic, community and global (e.g., 6.1.5.CivicsCM.3).
TECH.9.4.5.CT.3	Describe how digital tools and technology may be used to solve problems.
TECH.9.4.5.CT	Critical Thinking and Problem-solving
WRK.9.2.5.CAP	Career Awareness and Planning
	The ability to solve problems effectively begins with gathering data, seeking resources, and applying critical thinking skills.
WRK.9.2.5.CAP.1	Evaluate personal likes and dislikes and identify careers that might be suited to personal likes.
WRK.9.2.5.CAP.2	Identify how you might like to earn an income.
WRK.9.2.5.CAP.3	Identify qualifications needed to pursue traditional and non-traditional careers and occupations.
WRK.9.2.5.CAP.4	Explain the reasons why some jobs and careers require specific training, skills, and certification (e.g., life guards, child care, medicine, education) and examples of these requirements.

Technology and Design Integration

Students will work in cooperative groups to solve problems. Students will interact with the Smartboard to enhance the learning process.

	Data can be organized, displayed, and presented to highlight relationships.
CS.3-5.DA	Data & Analysis
CS.3-5.8.1.5.DA.3	Organize and present collected data visually to communicate insights gained from different views of the data.

Interdisciplinary Connections

Students will read and write throughout the unit. They will also use prior science knowledge to apply to the metric system.

LA.RL.5.4	Determine the meaning of words and phrases as they are used in a text, including figurative language such as metaphors and similes.
LA.RI.5.10	By the end of year, read and comprehend literary nonfiction at grade level text-complexity or above, with scaffolding as needed.
LA.RF.5.4	Read with sufficient accuracy and fluency to support comprehension.
LA.RF.5.4.A	Read grade-level text with purpose and understanding.

Differentiation

Differentiation:

- Use of different resources to match the readiness levels of the students when working on the activities in the daily lessons.
- Respond to students' needs for reteaching, reinforcing, and extending learning.
- Use of a variety of instructional strategies to engage students in learning.
- Question prompts to promote student engagement
- Small group settings as needed for specific skills
- Use discussion to promote collaboration among students
- Integrate technology to offer varied learning experiences
- Adjust instruction based on formative tasks/assessments

Modifications & Accommodations

Modifications & Accommodations:

- In class support and scaffolding based on the individual IEP's
- Independent levels on My Math and Splash Math

Benchmark Assessments

Students will do Aimsweb testing for Benchmark Assessments.

Formative Assessments

Formative Assessments:

- Task completion
- Answers and discussions
- Student maps
- Bingo
- Quizzes
- Participation

Summative Assessments

Summative Assessments:

- Quizzes
- Final Test

Instructional Materials

My Math Textbook series grade 5

See materials in lessons above

Standards

MA.5.MD.A.1	Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real world problems.
MA.5.MD.B.2	Make a line plot to display a data set of measurements in fractions of a unit ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$). Use operations on fractions for this grade to solve problems involving information presented in line plots.