# 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: **Obsolete**

## 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**

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

*Includes additional time for remediation and differentiation.

| Lesson | Objective | Material & Manipulatives | Vocabulary |
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| Lesson 1 *pp. 801-806*<br>**Hands On: Measure with a Ruler** | Measure length to the nearest half inch and quarter inch. | • inch rulers<br>• paper clips<br>• classroom objects | **length**<br>**inch** |
| Lesson 2 *pp. 807-812*<br>**Convert Customary Units of Length** | Convert measurements of length within the customary system. | • inch rulers<br>• classroom objects | **customary system**<br>**foot**<br>**inches**<br>**yard**<br>**mile**<br>**convert** |
| Lesson 3 *pp. 813-818*<br>**Problem-Solving Investigation: Use Logical Reasoning** | Solve problems by using logical reasoning. | | |
| Lesson 4 *pp. 819-824*<br>**Hands On: Estimate and Measure Weight** | Estimate the weight of objects and use a balance to measure the weight of objects. | • balances<br>• ounce weights<br>• pound weights<br>• classroom objects | **weight**<br>**ounces**<br>**pounds** |
| Lesson 5 *pp. 825-830*<br>**Convert Customary Units of Weight** | Convert measurements of weight within the customary system. | • Internet access | **weight**<br>**pound**<br>**ounces**<br>**ton** |
| **Check My Progress** | | | |
| Lesson 6 *pp. 833-838*<br>**Hands On: Estimate and Measure Capacity** | Estimate and measure the capacity of liquids. | • cup, pint, quart, and gallon containers<br>• water | **capacity**<br>**pints**<br>**cups**<br>**gallons** |
| Lesson 7 *pp. 839-844*<br>**Convert Customary Units of Capacity** | Convert measurements of capacity within the customary system. | • cup, pint, quart, and gallon containers<br>• water | **capacity**<br>**pint**<br>**cup**<br>**quart**<br>**fluid ounce**<br>**gallon** |
| Lesson 8 *pp. 845-850*<br>**Display Measurement Data on a Line Plot** | Display measurement data in fractions of a unit on a line plot and solve real-world problems. | • number lines<br>• bar diagrams | **fair share** |

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| Lesson 9 *pp. 851-856*<br>**Hands On: Metric Rulers** | Measure the length of objects to the nearest centimeter and millimeter. | • inch rulers<br>• centimeter rulers<br>• classroom objects | **centimeter**<br>**millimeter** |
| Lesson 10 *pp. 857-862*<br>**Convert Metric Units of Length** | Convert measurements of length within the metric system. | • centimeter rulers<br>• metersticks | **metric system**<br>**centimeter**<br>**millimeter**<br>**meter**<br>**kilometer** |
| **Check My Progress** | | | |
| Lesson 11 *pp. 865-872*<br>**Hands On: Estimate and Measure Metric Mass** | Estimate the mass of objects and use a balance to measure the mass of objects. | • balances<br>• gram weights<br>• classroom objects | **mass**<br>**gram**<br>**kilogram** |
| Lesson 12 *pp. 871-876*<br>**Convert Metric Units of Mass** | Convert measurements of mass within the metric system. | • balances | **mass**<br>**milligram**<br>**gram**<br>**kilogram** |
| Lesson 13 *pp. 877-882*<br>**Convert Metric Units of Capacity** | Convert measurements of capacity within the metric system. | • containers labeled liter or milliliter | **liter**<br>**milliliter** |
| **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.

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| WRK.9.2.5.CAP | Career Awareness and Planning |
| 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. |
| TECH.9.4.5.CT | Critical Thinking and Problem-solving |
| TECH.9.4.5.CT.3 | Describe how digital tools and technology may be used to solve problems. |
| 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.DC.4 | Model safe, legal, and ethical behavior when using online or offline technology (e.g., 8.1.5.NI.2). |
| | The ability to solve problems effectively begins with gathering data, seeking resources, and applying critical thinking skills. |

## Technology and Design Integration

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

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

## Interdisciplinary Connections

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

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| 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.5.4 | Determine the meaning of general academic and domain-specific words and phrases in a text relevant to a grade 5 topic or subject area. |
| 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

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| 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 (1/2, 1/4, 1/8). Use operations on fractions for this grade to solve problems involving information presented in line plots. |