

Measurement and Data: Grade 2

Stage 1 Desired Results

ESTABLISHED GOALS:

Competencies:

- **Students will demonstrate the ability to measure by estimating and comparing length with standard units and time with 5 minute intervals.**
- **Students will demonstrate the ability to represent and interpret data with graphs involving whole number units.**
- **Students will demonstrate the ability to solve arithmetic problems by utilizing effective strategies and applying properties of operations to whole numbers.**
- **Students will demonstrate the ability to model operations by utilizing objects, drawings, and equations.**

Content Standards:

- 2.MD.1 Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks and measuring tapes.
- 2.MD.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.
- 2.MD.3 Estimate lengths using units of inches, feet, centimeters, and meters.
- 2.MD.4 Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.
- 2.MD.5 Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, and equations with a symbol for the unknown number to represent the problem.
- 2.MD.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.
- 2.MD.7 Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.
- 2.MD.8 Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and ¢ symbols appropriately.

Transfer

Students will be able to independently use their learning to use measurement processes in everyday life and organize data to construct meaning.

Meaning

ENDURING UNDERSTANDINGS

Students will understand that...

- measurement processes are used in everyday life to describe and quantify the world.
- data displays describe and represent data in alternative ways.

ESSENTIAL QUESTIONS

- ***What's the right way to measure something?***

Acquisition

Students will know...

- that time can be measured and is used as a means for organizing and structuring each day.
- the names of coins and their values.
- that tools can be used to measure objects.
- that measurements can be compared.
- that one object can be measured with multiple units.

Students will be skilled at...

- telling and writing time to the nearest five minutes, using a.m. and p.m. and quarter to, quarter past, half past to describe time.
- the names of coins and their values (pennies, nickels, dimes and quarters).
- solving word problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and ¢ symbols appropriately.
- measuring and recording the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.
- measuring to determine how much longer one object is than another.
- estimating and accurately measuring an object using two different units.
- using addition and subtraction within 100 to solve word problems involving lengths .
- describing how two measurements relate to the size of the unit chosen.
- representing a whole number from 0 to 100 as a length on a number line.
- representing a whole number sum or difference within 100 as a length on a number line.

vocabulary:

length, unit, ruler, yardstick, meter stick, measuring tape, inches, feet, yards, centimeters, meters, number line diagram, sums, differences, analog clock, digital clock, a.m, p.m., dollars (\$), cents (¢), quarters, dimes, nickels, pennies, line plot, scale, picture graph, bar graph, estimate, data

• 2.MD.9 Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units. • 2.MD.10 Draw a picture graph and a bar graph (with single-unit scale) to represent a data set up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in a bar graph. • MP2 Reason abstractly and quantitatively. • MP3 Construct viable arguments and critique the reasoning of others. • MP4 Model with mathematics. • MP5 Use appropriate tools strategically. • MP6 Attend to precision.		• generating measurement data by measuring lengths using whole-number units. • representing length measurement data using a line plot with a whole-number unit scale. • drawing picture and bar graphs to represent a data set using up to four categories. • solving simple problems using information presented in a picture or bar graph.
Content Area Literacy Standards		21st Century Skills
not applicable		• <i>solve problems</i> • <i>reason effectively</i> • <i>productivity and accountability</i> • <i>make judgments and decisions</i>

Stage 2 - Evidence

Evaluative Criteria	Assessment Evidence
	PERFORMANCE TASK(S):
	OTHER EVIDENCE:

Stage 3 – Learning Plan

Summary of Key Learning Events and Instruction

Language Arts Integration	Mathematics Integration
• <u>1.OA.1</u> Use	not applicable

<i>Technology Integration</i>	<i>District Materials</i>
• <u>1.OA.1</u> Use	