



Grade 2 Unit 3

Understanding Measurement, Length, and Time

Volume 1 Issue 3

References

Helpful Links:

www.gamequarium.com/estimation.html

www.gamequarium.com/imemath.html

www.gamequarium.com/measurement.html

www.xtramath.org/

www.coolmath4kids.com/

Math Grade 2

Textbook Connection:

Ch. 10, Lessons 10.1-10.6

Ch. 11, Lesson 11.1-11.12

Textbook Online:

<http://connected.mcgraw-hill.com/connected/login.do>

Student User ID:

ccsd(student ID)

Password: cobbmath1

Dear Parents,

During this unit your child will be transitioning from measuring lengths with informal units to measuring with these standard units: inches, feet, centimeters, and meters. The measure of length is a count of how many units are needed to match the length of the object or distance being measured. It is important that they understand what a length unit is and how it is used to find a measurement. They need many experiences measuring lengths with appropriate tools so they can become very familiar with the standard units and estimate lengths.

Concepts Students will Use and Understand

- Know the following customary units for measuring length: inch, foot, yard
- Recognize the need for standard units of measure
- Use rulers and other measurement tools with the understanding that linear measure involves an iteration of units.
- Know the following metric units for measuring length: centimeter and meter
- Compare the relationship of one unit of measurement to another, within the same system
- Check by measuring to determine if estimates are accurate for length
- Determine the appropriate tool for measuring length; inch ruler and yardstick, centimeter ruler, and meter stick
- Understand the importance and usefulness of reasonable estimations
- Connect the whole-number units on rulers, yardsticks, meter sticks and measuring tapes to number lines showing whole-number units starting at 0
- Use these measuring tools to model different representations for whole-number sums and differences less than or equal to 100 using the numbers 0 to 100.
- Be able to represent the length of several objects by making a line plot
- Collect data in a bar graph or picture graph
- Tell time to the nearest five minutes
- Understand the relationship of hours and days

Vocabulary

inch: A customary unit of length; 12 inches = 1 foot

foot: A customary unit of length; 1 foot = 12 inches

yard: A customary unit of length equal to 3 feet

centimeter: A metric unit of length 1/100 of a meter

meter: The standard unit of length in the metric system

estimate: To make an appropriate or rough calculation, often based on rounding

minute: Unit of time equal to 60 seconds

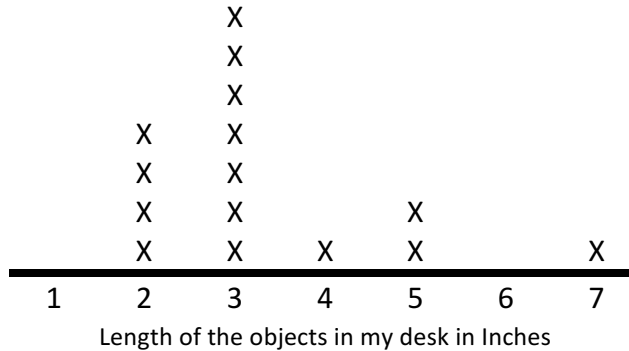
hour: Unit of time equal to 60 minutes

Try <http://intermath.coe.uga.edu/dictionary/homepg.asp> or <http://www.amathsdictionaryforkids.com/> for further examples.

Example 1

For standard MGSE2.MD.9 students need to represent the length of several objects by making a line plot. Students should round their lengths to the nearest whole unit

Measure objects in your desk to the nearest inch, display data collected on a line plot. How many objects measured 2 inches? 3 inches? Which length had the most number of objects? How do you know?



Example 2

In P.E. class Kate jumped 14 inches. Mary jumped 23 inches. How much farther did Mary jump than Kate? Write an equation and then solve the problem.

Student 1

My equation is $14 + \underline{\quad} = 23$ since I am trying to find out the difference between Kate and Mary's jumps. I used place value blocks and counted out 14. Then I added blocks until I got to 23. I needed to add 9 blocks. Mary jumped 9 more inches than Kate.



Student 2

My equation is $23 - 14 = \underline{\quad}$. I drew a number line. I started at 23. I moved back to 14 and counted how far I moved. I moved back 9 spots. Mary jumped 9 more inches than Kate.



Example 3

Look at your ruler to see how long one inch is. Now, estimate the length of this paper in inches.

Activities at Home

- Measure items found around the house. Have your child first estimate how long they are, then measure. Do this using both customary and metric units of length. Talk about measuring tools and when to measure items in inches, feet and yards, or when to measure items using centimeters or meters.
- Have your child tell you what time it is to the nearest five minutes. Start discussing how long it takes to do things like brushing teeth, getting ready in morning, or how long their sports practice might be.