

Measurement Scavenger Hunt

Purpose

Students will measure length to the nearest quarter-inch, eighth-inch, and millimeter and compare different units of measure for the same object.

Materials

For the teacher: colored tape, transparent inch-ruler, transparent metric ruler, overhead projector, three small strips of paper to measure to the nearest quarter-inch, eighth-inch, and millimeter

For the class: 16-20 items to measure

For each group of 3-4 students: 2 copies of Black Line Master (BLM) *Measurement Scavenger Hunt* with teacher measurements added, inch ruler, metric ruler

Activity

A. Pre-Activity Preparation

1. Collect or have students bring in 16-20 objects of various lengths to measure.
2. Make three copies of the BLM *Measurement Scavenger Hunt*. Use one for an answer key and the other to make two copies for each group.
3. Mark each object with colored tape on the side that you want the students to measure. Measure each item to the nearest quarter-inch, eighth-inch, and millimeter. Record the measurement of the objects on the answer key. Fill in one measurement unit on the copy to give to students. Alternate the units that you fill in, leaving two units for the students to measure for each object.
4. Plan the division of groups into which you will divide the classroom. Lay out at least twice the number of objects as the number of groups you have.

B. Introduction

1. Explain to the students that they will be measuring objects to the nearest quarter-inch, eighth-inch, and millimeter.
2. Place the transparent inch ruler on the overhead projector. Point out the quarter-inch markings on the ruler and demonstrate how to count the markings to find the nearest quarter-inch to measure.

(continued)



connecting
across the
curriculum

Science

Have students grow plants using different soil, different kinds of water, or different levels of sunlight. Instruct students to measure plant size, leaf size, and other plant parts to the nearest millimeter to compare the effects of the changing environment. Have students record the data and display it in a meaningful way.



MEETING
INDIVIDUAL
NEEDS

For students having difficulty with measuring the different units, have them practice measuring with each of the separate units several times before mixing the units of measure. Work individually with them until you are confident they have grasped the concept.

Standards Link
4.1.6

Activity (continued)

3. Place the paper strip to measure to the nearest quarter-inch above the ruler and have students tell you the measurement to the nearest quarter-inch.
4. Repeat step 2 for eighth-inch measurements and using the transparent metric ruler for millimeter measurements.


C. Group Activity


1. Divide the class into groups of three or four students.
2. To each group, hand a copy of the BLM *Measurement Scavenger Hunt* with one unit of measurement added to each row.
3. Explain to students that they will be looking for objects that measure the same measure that has been filled in on the table.
 - a. Each group will have a “chooser,” two “measurers,” and a “recorder.” If there are only three members in the group, the chooser also takes on the role of recorder.
 - b. The chooser will choose two objects from the pile for their group to measure.
 - c. The first measurer will measure one of the objects to the nearest quarter-inch, eighth-inch, and millimeter.
 - d. Once the object has been identified, the recorder writes the name of the object in the appropriate row and the missing measurements in the appropriate locations in the table.
 - e. The second measurer will measure the other object to the nearest quarter-inch, eighth-inch, and millimeter. The recorder will record the missing information in the appropriate row as in part d.
 - f. The roles of the members of the group will rotate and the new chooser will return the objects to the pile and choose two more.
4. Review the answers together. Discuss problems students had with measuring.


Questions for Review

Basic Concepts and Processes

During the Group Activity, discuss the following questions with students to gauge their understanding of the indicator:

 What does this [*indicating a particular object*] measure to the nearest eighth-inch?

 Show me how you got that measurement.

 Is a quarter-inch or eighth-inch bigger?

 Show me where the 28-millimeter mark is on the metric ruler.

Measurement Scavenger Hunt

Teacher Directions

Collect or have students bring in 16-20 objects of various lengths to measure.

Make two copies of the BLM. Use one for an answer key and the other to make copies for each group.

Mark each object with colored tape on the side that you want the students to measure. Measure each item to the nearest quarter-inch, eighth-inch, and millimeter. Record the measurements of the objects on the answer key. Fill in one measurement unit on the copy to give to students. Alternate between the units that you fill in, leaving two units for the students to measure for each object.

If you have objects that are similar or unfamiliar, you may wish to mark the objects by name as well.

Have students measure the objects in groups as detailed in the Group Activity. Instruct students to record their findings in the table.

Answer Key

Record answers in advance.