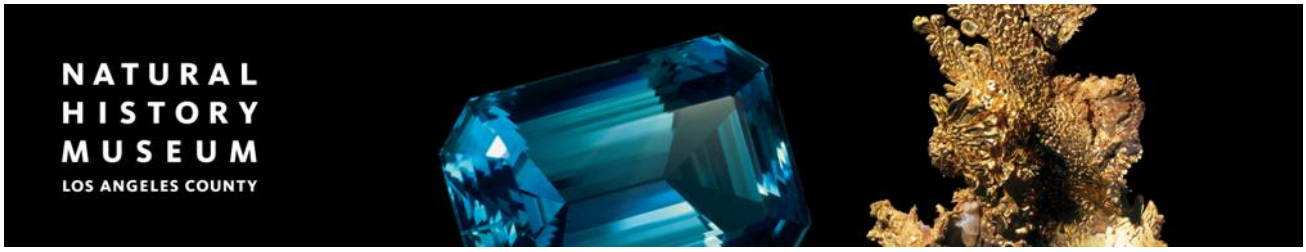


Math Rocks!

PreK

Duration
15-20 minutes

Location
Gem & Mineral Hall

Supplies
- Worksheet
- Writing tool
- Clip board

Standards
Mathematics: Counting, Graphing (collect, tally and graph results)

Compare, Order and Measure Objects: Comparing, Measuring

Vocabulary
Taller/Shorter
Larger/Smaller
Biggest/Smallest
Measuring
Graphing
Comparing

Student Work

Concepts

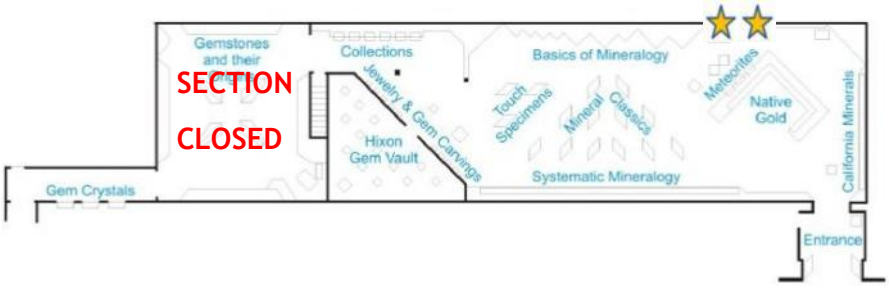
- Objects can be measured to find out if they are taller or shorter than other objects.
- Graphing helps compare objects.

Objectives

- Students will measure specimens in the Gem and Mineral hall.
- Students will graph information to compare the specimens.
- Students will determine which object is taller and which is shorter.

Outline

1. Have students find and identify the specimens you will be measuring in the hall (see map for help).
2. Have students measure and help you graph observations using the worksheet.
3. Review and Reflect.



During Visit

Gather students in the right area of the Gem and Mineral Hall (starred on the map). Have the students find and identify the first specimen by asking them to look for a rock that is low on the ground and mostly the color green. When student find the (pictured; a large specimen sitting on the floor, to the left of the 'metamorphosis' section), they should put one finger on it and one finger on their nose! When most students have found it, repeat to the activity to find the second specimen, now they are looking for something higher on the wall with spikes and it is the color black.

After they have found the Epidote with Quartz (pictured; behind glass in the 'metamorphosis' wall) regather the students, and ask them: Which one is taller? The lower green rock, or the higher black rock? Take some time to collect answers, and then ask the students: How do we know?

Explain that one way we can know, is to measure and compare those measurements on a graph. Today, we are going to measure these two rocks, and compare those measurements on a graph to figure out which one is tallest, and which one is shortest.

Tell students that measuring means finding out the size of something. Today we will be measuring by using our hands, and then putting our measurements on a graph – which is a picture that will show us information (see below for worksheet).

Lead students in measuring the first specimen by having them put their hands flat against the rock, stacking them from the bottom up. Once as many hands that can fit are on the rock, have everyone count how many hands tall the rock is, and together color in that that many hands on the graph.

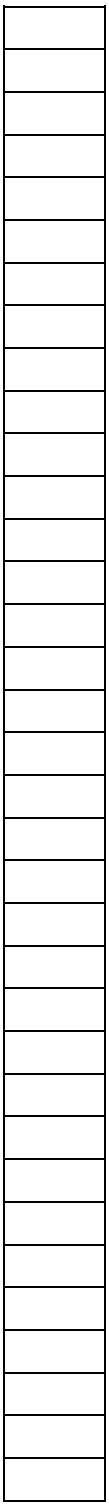
Repeat this exercise with other rock.

Now have them gather around the graph you have filled in and review what they just did. Remind them that they used their hands to measure how tall each rock was, and graphed that answer. Now, we are going to use the graph to figure out which rock was taller. Ask students: how many hands tall was the low green rock? You may choose to lead them through counting on the graph. How many hands tall was the higher, black rock? So which rock was tallest? How do we know?

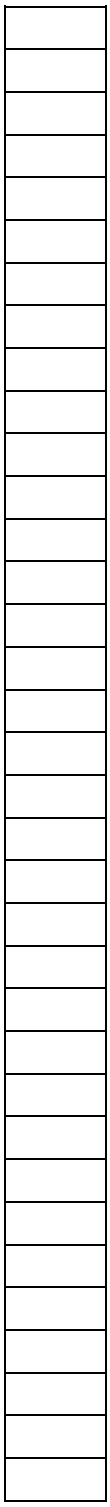
Thank students for their help in figuring out which rock was tallest!

Math Rocks!

Which Rock is Tallest?



Lower, Green Rock



Higher, Black Rock