

Title: Gardens RULE!

Subject: math

Skills: measuring, recording

Grade Level: 2-5

Length of Lesson: at least 30 minutes, but can vary

Overview: Students will use rulers and tape measures to record as many measurements as possible in the garden, or other location on school grounds.

Background information: Math is everywhere! Students can apply skills learned about measuring in the classroom to outdoor situations. Find the perimeter, area, circumference, height, width of your school garden.

Materials:

Rulers-1 per student or group

Ball of twine

Tape measure

Garden journals or science notebooks

Teaching the Lesson:

1. Have students brainstorm a list of moments when they would need to measure something.
2. Record these on the board
3. If it has not already been suggested by a student, ask them how it was determined that the school garden would fit in the area where it is located. If your school does not have a garden, you can use another defined area or present this activity to determine if an area is big enough for a garden.
4. Explain to students that they will be going outside on a measuring scavenger hunt. They will need their rulers, garden journals (or science notebooks) and a pencil. The teacher will bring the twine and measuring tape if working with younger students.
5. Provide students with a list of items they need to measure BEFORE going outside. Also be sure to explain the rules of working outside, especially when near other classrooms.
6. Possible things to measure are:
 - Perimeter of the garden

- Area of the garden
 - Circumference of a flower bed or other circular area (use twine and then measure with measuring tape)
 - Height of a small tree or bush
 - Length of a shadow (be sure and record the time of day and compare it at another time to see how the shadow changed)
 - Distance from the water source to your garden
7. Once back in the classroom, have students give a reason WHY each of those measurements could be useful. For example the area of the garden was determined by what would fit in that space. Perhaps a larger garden couldn't be planted there. The length from the water source to the garden helped determine the length of garden hoses needed.
8. Notebooks can be used for student evaluations.