

Rain Gauges



AGES

5+

Rain gauges allow us to measure the amount of rain that falls in a given rain event. This can be important for many reasons, including predicting floods, planning agricultural production, and even taking care of our gardens and deciding whether and when to water them. Rain gauges are simple, easy to use, and fun to make. As a group, you can make your own rain gauges to measure rainfall at your program or for children to take home.

Activity Goals

- ➔ To create measuring devices
- ➔ To explore the concept of water measurement

National Science Education Standards

Earth and space science: properties of earth materials, objects in the sky, changes in earth and sky

Science in personal and social perspectives: changes in environments

Materials and Supplies

- ☐ Small clear-plastic containers, one per child
- ☐ Permanent markers in a variety of colors
- ☐ Liquid measuring cups, one set per small group of children
- ☐ Ruler or measuring tape, one per small group

Procedure

1. Discuss with the children that you would like to come up with a way to measure the amount of rainfall, and elicit their suggestions for how you might do that as a group.
2. Explain to the children that rainfall is measured in inches rather than in cups or teaspoons, which is another way to measure liquids.
3. Divide the children into small groups and provide each group with a ruler and a set of measuring cups.
4. Provide each child with a small container and a marker.
5. Demonstrate how to find and mark a half-inch on the container by holding the ruler inside the container and drawing a two-inch line on the outside at the half-inch ruler line. Encourage the children to help each other in this work.
6. Have the children find and mark the one-inch point in the same manner, but with a marker of a different color. They should continue marking half-inch increments for five inches or to the top of the container.
7. Children can then use the measuring cups to fill their rain gauges and determine how much water is in one inch, two inches, and so on. The amount will vary if the diameter of the containers differs.
8. Place the rain gauges in different locations outside your school, or have the children take them home.

TIPS

- Use permanent markers for the rain gauges; otherwise, the ink will soon wash away! Remember, however, that permanent ink will stain clothing and skin. Take precautions to ensure children use the markers properly.
- Use this activity as a complement to the activities in chapter 7: Weather, Climate, and Energy.

CONNECTIONS



Ask the children what changes they can observe over time. If you live in a snowy area, collect snowfall in a rain gauge and then bring it inside. As the snow melts, the amount collected appears to shrink. Ask the children why they think this is.