

Building a Rain Gauge

Background

Rain gauges measure rainfall over short or long periods of time. Short-term gauges are checked after each rainfall. They can simply be open jars left outside to collect rain and measured each day. A more complex rain gauge has oil in it to keep rain water from evaporating over long periods of time.

Materials

- sharp scissors
- fine mesh screen
- nail file
- 2 two-liter bottles (tops removed)
- permanent marker
- ruler
- duct tape
- vegetable oil
- bleach (optional)

Procedure

1. Carefully cut a two-liter bottle in half to make a funnel. File any sharp edges.
2. Place the cut bottle on the uncut bottle so that spouts are touching and in line.
3. Tightly tape the bottle spouts together. Place the screen over the funnel opening and press it slightly inward. Tape it in place.
4. Mark the rain gauge up the side in 1/4-inch (or 1/2-cm) graduations with the permanent marker. For more accurate readings, tape a ruler to the side of the bottle.
5. Pour in enough vegetable oil to cover the bottom of the rain gauge in a thin layer. Put the screen in place over the gauge.
6. Place the rain gauge outside, preferably in a shady, but not covered, spot.
7. Decide on a time period to wait before collecting data. Periodically check the gauge and put a few drops of bleach in it to retard critter growth.
8. Keep a record of rainfall totals for each day and the average amount of rainfall over the time period you specify.