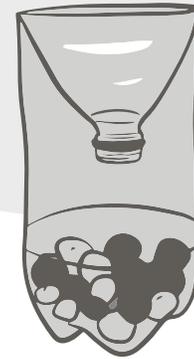


# Make Your Own Rain Gauge!

Grades: K - 8

Time: 20 mins and then ongoing



## Lesson summary:

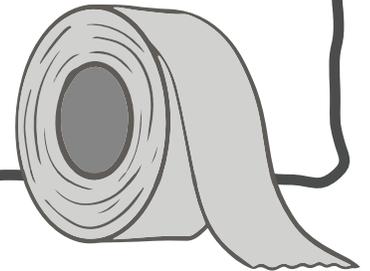
Make your own rain gauge and track how much rain falls in your backyard.

## Outcomes or purpose:

- Rain falls into the top of the gauge and collects in the bottle, where it can be easily measured.

## Materials needed:

- One clear plastic 2-litre pop bottle with straight sides
- Pebbles, stones or large gravel
- Plastic or metal ruler at least 15 centimetres in length
- Clear tape
- Scissors
- Water
- Journal to record rainfall



## Step by step instructions:

1.

Using scissors, cut the bottle about 10 centimetres from the top. Save the top part.

3.

Tape the ruler to the side of the bottle so that the zero mark on the ruler is just above the stones, beginning at the straight section of the bottle.

2.

Place pebbles, stones or gravel in the bottom of the bottle until they fill the little bumps in the bottom and come up to the part of the bottle where the sides are straight. The stones will help to keep the gauge more stable.

4.

Pour water into the bottle so that the water level is even with the zero mark on the ruler.

# Make Your Own Rain Gauge!

5.

Take the top part of the bottle that you cut off earlier and turn it upside down. Set it into the bottom part of the bottle so that it looks like a funnel. Voila! Now you've made your own rain gauge!

6.

Set your rain gauge on a flat surface in an open area in your yard or garden. Avoid areas with trees, fences or buildings that interfere with the amount of rain that falls into your rain gauge.

7.

Check the weather forecast for where you live here: [www.weather.gc.ca](http://www.weather.gc.ca) and watch for rain. If it is likely to rain, make sure the water in the bottom hasn't evaporated below the zero mark on your rain gauge. If it has, refill it to that mark.

8.

After it has rained, take a reading. Match the water level with the measurement on the ruler you taped to the side of the bottle. Mark the date and the reading in your journal.

9.

After it rains, reset your rain gauge by pouring out the excess water. Ensure that the water level inside the rain gauge is even with the zero mark on the ruler again.



## Discussion questions

- Try comparing the amount of rain to the length of time the shower lasted. Was it a short and heavy rain shower, or a long and light one?
- On average, a vegetable or flower garden or lawn needs about 3 cm of rainfall per week. Look at your rainfall records. Is your garden getting enough water? If not, a rain gauge can help you decide if you need to water your garden with a hose.

## Expand the learning:

Try taping a basket-type coffee filter in the funnel part of the gauge to collect any particles that fall as rain. (The rainwater will drip into the bottle eventually.) Look at the filter through a magnifying glass or microscope and see what it captured.

In your journal, make a note of the date and the amount of rain. Then check the official amount of rainfall in your area for the day and see how closely your figure matches the official one!

If you want to get serious you can graph the rainfall over weeks or even months.