

30-45  
Minute  
Activity  
For  
Everyone

## Rain Gauge

To better understand our atmosphere, Meteorologists and farmers have been measuring levels of rainfall for hundreds of years. Having recorded rainfall levels over time, increases our ability to track weather patterns and droughts which can be useful when predicting future weather cycles, even natural disasters. This activity will provide you with the steps to make your own homemade rain gauge, deepening your connection to local weather patterns and natural environment.

### Activity:

Start by collecting everything needed to make your homemade rain gauge.

### Materials Needed

Plastic water bottle (at least 500ml), Clear Tape, Ruler, Small Rocks, Scissors, Marker, Water.

- Cut the top off your water bottle, about an inch down from where the walls of the bottle become straight.
- Using your marker, mark a horizontal line near the bottom of the bottle before the walls start to taper in. This is your **start line**.

*This is important as it marks the start of your rainfall gauge measurement markings.*

- From the start line. Use a ruler to measure and mark every half centimeter up the side of your bottle to the top.
- Add small rocks to the bottom of the bottle. Do not fill past the start line.

*This will add weight to your bottle, making it less likely to fall over during a rainstorm.*

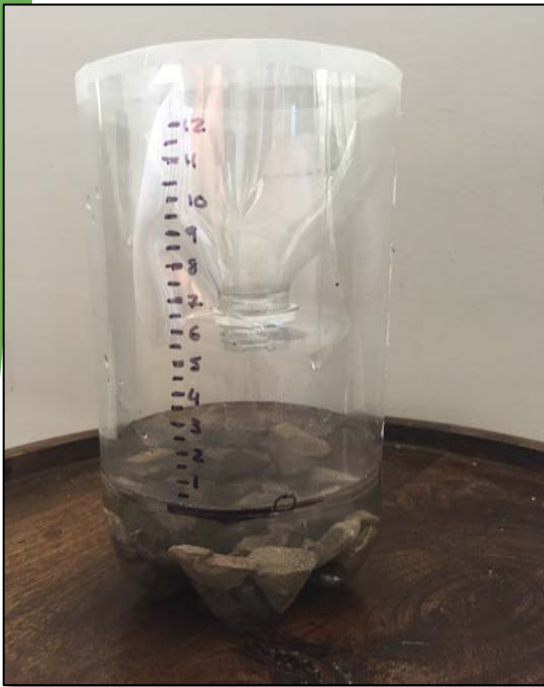
- Fill the bottle up with water to your start line (don't go over).

*This allows you to start precisely at the bottom of your gauge line. Any rain that you collect will raise the water line allowing you to measure how much rain has fallen.*

- Take the cut off top of the bottle and insert it upside down into the bottle, creating a funnel to collect rain. Make sure to tape it in place.
- Place your rain gauge outside.

*It is best to place it in an open space, away from buildings and trees.*

- After the rain has come and gone, head out to check your rain gauge to observe how much rain it collected.



Use a weather journal to record your rainfall measurements over a month, or longer time period. Don't forget to reset your rain gauge back to 0 every day.

### Discussion Questions:

- Why do we have different weather patterns? Are they important?
- What can the amount of rainfall tell us about our local ecosystem?
- How does the amount of rainfall effect farmers and food production?
- What can we learn from deepening our connection to local weather patterns?