

Rain Gauge Experiment

With climate change we know we will have more days of heavy rainfall. But how do scientists know how much rainfall fell in a day?

They use something called rain gauges that collect rainfall and measure how much fell. You can make your own simple one with the experiment below.

Set up time: 20 minutes

Wait time: One week

What do you need?

1. A plastic bottle
2. A scissors.
3. Permanent marker.
4. Tape.
5. A ruler



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What do you do?

1. Get an adult to cut the bottle roughly a third from the top.
2. Mark lines on the bottom part with a permanent marker. Using a ruler to mark a line every cm up.
3. Put small stones in the bottom part.
4. Put some water in it up to one of the bottom lines.
5. Turn the top of the bottle around and place it into the bottom part to act as a funnel.
6. Tape them together.
7. Place it outside in an area that is sheltered from the sun and the wind.
8. Take a measurement every day for a week (if it is a dry week you might need to pick another week).
9. Take the previous day's measurement away from the current day's measurement to find out how much rainfall fell since the previous day.
10. Write all the week's measurements and see what day had the most rainfall.



Questions

1. If you were able to do this over a few years you could compare how much rain fell in different years. Why would that be useful to know?
2. What might make the water disappear during the day to make the measuring not quite right? Check out this experiment to find out more:

<https://greenschoolsireland.org/wp-content/uploads/2020/04/GSStayHome-Water-Day1-EVaporation-Infographic.pdf>