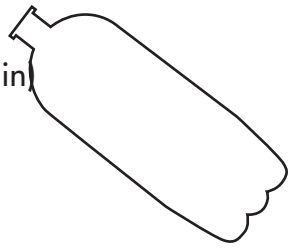
How to Measure Precipitation

Precipitation (pre - sip - uh - tay - shun) is just a big word used to describe water falling from the air. Rain, snow, hail, and sleet are all precipitation.

Meteorologists measure precipitation using something called a rain gauge. You can make your own rain gauge - here's how.

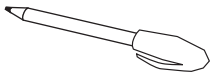
What You Need

1. a 2 litre plastic bottle (the kind you get pop in)

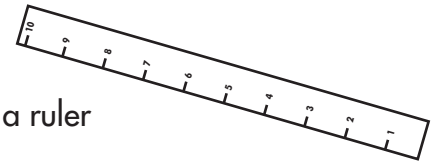


2. scissors

3. a non-toxic marker

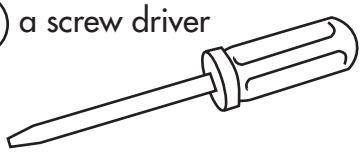


4. a ruler

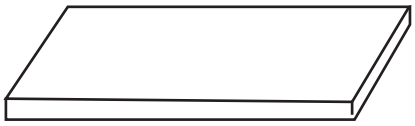


5. one screw

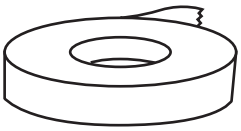
6. a screw driver



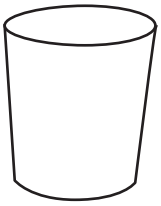
7. a scrap piece of wood (about 20 cm by 20 cm)



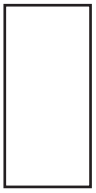
8. some tape



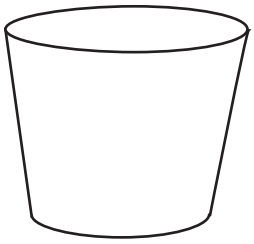
9. a see-through container that is the same size around as your rain gauge (plastic pop bottle). This will be your measuring container.



10. a strip of scrap paper that is the same height as your see-through measuring container



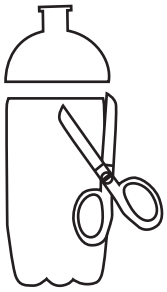
11. a large plastic container that is big enough for your pop bottle to fit in



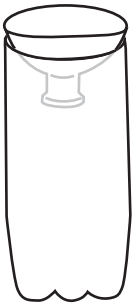
How to Measure Precipitation

How to Make Your Rain Gauge

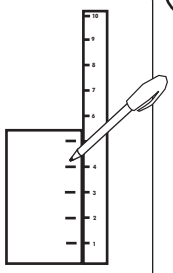
1. Cut the top off of the plastic bottle about 1/3 of the way down. The bottom part should be longer than the top part of the bottle. Make sure you ask permission from an adult. Scissors are sharp and plastic can be hard to cut; you may need an adult to help you.



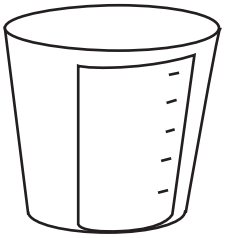
2. Turn the top part of the bottle upside down and stick it in the bottom part. The top part is now a funnel.



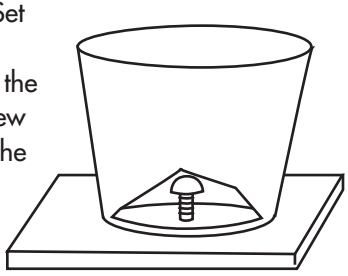
3. Set your ruler and strip of paper beside each other on a flat surface. Make sure the edge of the paper is right against the ruler and the bottom of the strip of paper is even with the bottom of the ruler. Use your marker to mark off every 0.5 cm.



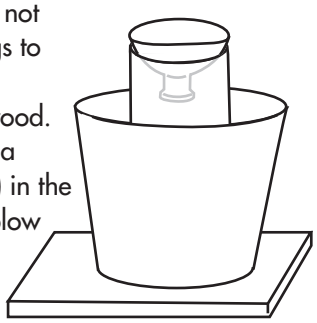
4. Tape the strip of paper onto your clear container so that the bottom of the paper is at the bottom of your container. You will use this to measure the amount of water collected.



5. Ask an adult to help you with this step. Set the large plastic container on top of the piece of wood. Screw the container onto the piece of wood.



6. Find a spot outside that is not near any trees or buildings to put the container that you attached to the piece of wood. If it is in a windy spot put a rock (or something heavy) in the bottom so that it will not blow over. Set your rain gauge inside the container.



How to Measure Precipitation

Every time you check the temperature (at least 3 times a day), check your rain gauge too. Empty any water into your measuring container. Use the strip of paper attached to the container to measure how much water there is.

Draw a bar on your precipitation chart. The height of the bar will show how much water was collected. See the sample precipitation chart below to see how it should be filled in.

If you need to measure the amount of snow, take out the funnel part of your rain gauge. Let any snow collect in the bottom part. At the end of each day, dump any snow into your measuring container. When the snow has melted measure how much water there is. Draw a bar on your precipitation chart to show the amount.

Here is an example of a precipitation chart that has been filled in.

Week Of: April24th, 2000 **Total Precipitation:** 8 cm.

Amount of rain or snow (cm)

	Sun.	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
15							
14							
13							
12							
11							
10							
9							
8							
7							
6							
5							
4							
3					■		
2		■			■		
1	■	■		■	■		■
Days							

Amount of water collected in rain gauge.

Sun: 1cm.
Mon: 2 cm.
Tues: 0 cm.
Wed: 1cm.
Thurs: 3cm.
Fri: 0 cm.
Sat: 1cm.

Draw your own precipitation chart or print out the one we made. You will need one chart for the week.

Your Precipitation Chart

Every time you check the temperature (at least 3 times a day), check your rain gauge too. Empty any water into your measuring container. Use the strip of paper attached to the container to measure how much water there is.

Draw a bar on your precipitation chart. The height of the bar will show how much water was collected. See the sample precipitation chart below to see how it should be filled in.

If you need to measure the amount of snow, take out the funnel part of your rain gauge. Let any snow collect in the bottom part. At the end of each day, dump any snow into your measuring container. When the snow has melted measure how much water there is. Draw a bar on your precipitation chart to show the amount.

Here is an example of a precipitation chart that has been filled in.

Week Of: April24th, 2000 **Total Precipitation:** 8 cm.

Amount of rain or snow (cm)

	Sun.	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
15							
14							
13							
12							
11							
10							
9							
8							
7							
6							
5							
4							
3					■		
2		■			■		
1	■	■		■	■		■
Days							

Amount of water collected in rain gauge.

Sun: 1cm.
Mon: 2 cm.
Tues: 0 cm.
Wed: 1cm.
Thurs: 3cm.
Fri: 0 cm.
Sat: 1cm.

Draw your own precipitation chart or print out the one we made. You will need one chart for the week.