

## Measuring Rainfall

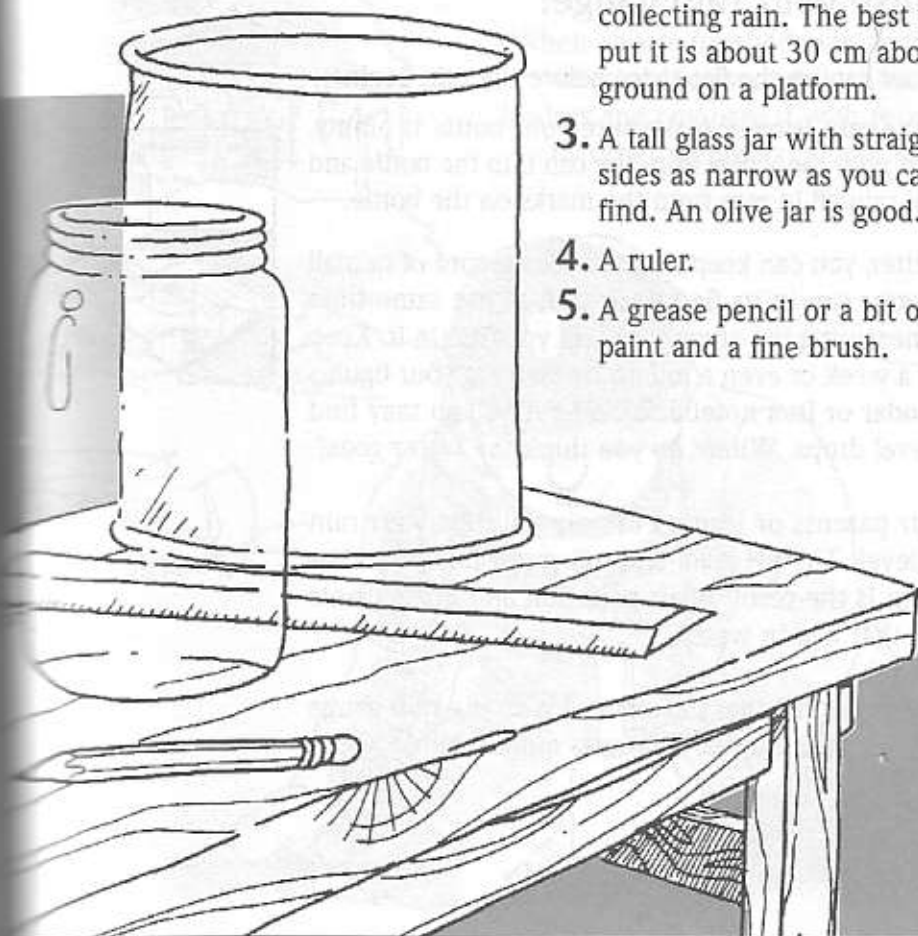


Some days it storms and rains very hard for an hour or so. On other days, the rain comes down gently, but it keeps on falling all day. Which kind of rainfall produces more rain?

You can find out if you make a rain gauge.

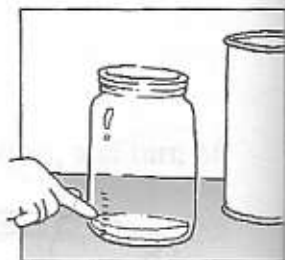
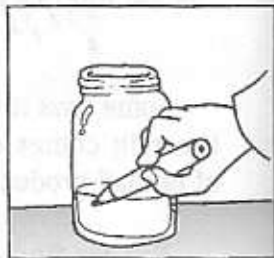
### You need:

1. A tin can as wide as you can find.
2. A flat place away from trees or walls on which to set the can for collecting rain. The best place to put it is about 30 cm above the ground on a platform.
3. A tall glass jar with straight sides as narrow as you can find. An olive jar is good.
4. A ruler.
5. A grease pencil or a bit of paint and a fine brush.



## How to make it:

1. Carefully pour 2 cm of water into the wide tin can.
2. Pour the water from the can into the narrow bottle. Notice how much higher it rises in the bottle.
3. Mark the water level in the bottle with the grease pencil or paint brush. This is the mark for 2 cm of rain.
4. Using the ruler and grease pencil or brush, carefully divide the space between this mark and the bottom of the bottle into 10 equal parts. Each of these marks represents  $\frac{1}{10}$  of 2 cm, or 2 mm of rainfall. Using the same spacing, mark off the space above the 2 cm line as well.



## How to use your rain gauge:

1. Place your can on the flat space before the rain begins.
2. When the rain is over, make sure your bottle is empty, and then pour the water from the can into the bottle and read the rainfall in mm from the marks on the bottle.



Even better, you can keep a continuous record of rainfall by leaving your can in its flat place and, at the same time every day, measuring the amount of rain you find in it. Keep a record for a week or even a month by marking your figures on the calendar or in a notebook. Some days you may find the water level drops. Where do you think the water goes?

Ask your parents or leaders to help you test your rain water's pH level. The pH level will tell you if rain is acid or not. Acid rain is the result of air pollution and hurts plants and animals that live in water.

The largest rainfall that I measured with my rain gauge was \_\_\_\_\_ millimetres. That was quite a rain!

In the winter, you can measure snowfall with a ruler. Pick a flat spot that was shovelled or ploughed after the last snow fall and stick the ruler down through the snow to the ground. Because snow isn't always quite level, it's a good idea to take several measurements. Then find the average reading by adding together all your measurements and dividing by the number of measurements you made.

The largest snowfall at home while I was a Cub was \_\_\_\_\_ centimetres. (Write in your record with a pencil in case there is a larger snowfall later.)

When you've finished making your record of rainfall or snowfall, show it to your leaders and compare it with records made by other members of your six or pack.

