

Science Experiment Rain Gauge

Measure the amount of rain that falls during a period of a week or month, and compare your results with the official statistics.

YOU WILL NEED:

- ruler
- masking or adhesive tape.
- various empty containers, like a coffee can, a jar, and a
- cut-down milk carton
- pencil
- paper

WHAT TO DO

Using the ruler, measure off centimetres on strips of masking or adhesive tape. Attach the tapes to the various containers.

Put the containers on a flat, level surface outside. It may be wise to place the containers in a box to make sure they remain upright.

Each time it rains, measure the amount of rain in the containers. The levels should be the same whatever the size of the container, provided that its sides are parallel. Record the amount and date.

Compare measurements from one rainfall to the next. And compare your measurements with those announced on television or radio. Collect your rainfall data for a month and you can compare your measurements to the 'Monthly Regional Rainfall' shown on the Hawke's Bay Regional Council website www.hbrc.govt.nz

They may not always agree. Sometimes, the amount of rain varies from one side of the street to the other!

HOW FAR AWAY IS THE STORM?

When you see a flash of lightning, start counting the seconds like this: and one and, and two and, and three and, - and continue until you hear a roar of thunder. Divide the number you get by 3 for kilometres. That will give you a rough estimate of how far away the centre of the storm is.

WHY

Lightning and thunder take place at the same time, but light and sound travel to us at different speeds and so reach us at different times. Light travels at 300,000 km per second and takes only a fraction of a second to reach us. We see lightning the moment it flashes.

It takes about 3 seconds for sound to travel a kilometre.

When a thunderstorm is near, the thunderclap is loud and sharp. When it is far away, it is a low rumble. Ordinarily, you can't hear thunder more than 16 or 24 km away. If you see lightning and hear thunder at just about the same moment, the storm is right above you.