

Rain Gauge

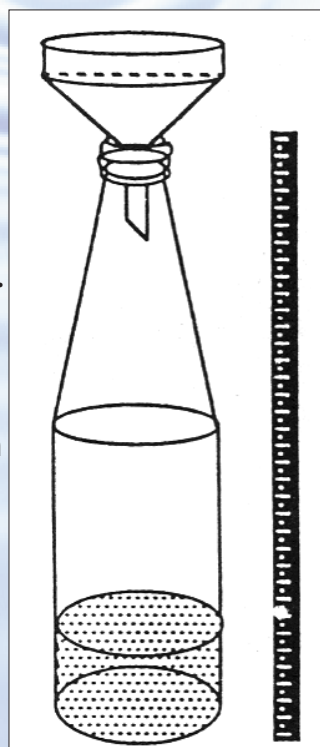
Activity

Background

A rain gauge is a type of instrument used by meteorologists and hydrologists to gather and measure the amount of liquid precipitation (as opposed to solid precipitation that is measured by a snow gauge) over a set period of time. The objective of this activity is to teach students that precipitation is a measurable aspect of weather.

Methodology

- Students would require a funnel and a transparent bottle to make a rain gauge
- The diameter of the base of the bottle and the wider end of the funnel should be the same.
- The funnel should be placed over the bottle as shown in the illustration to make a simple rain gauge
- Students could otherwise use a cylindrical jar available in the chemistry laboratory.
- The rain gauge could be used by students to measure rainfall in a region over a 24 hour period.
- Care must be taken to ensure that the rain gauge is placed in a clear area, without overhanging hindrances from surrounding trees and buildings.
- Students can place the rain gauge in an appropriate spot chosen by them.
- Students must ensure that the container is not disturbed during the period of the rain and is not toppled over by the wind.
- It would be a good idea to place the bottle in a shallow depression created by digging the soil up to a depth of a few centimetres.
- Rainfall could be allowed to collect in the rain gauge over a period of 24 hours.
- Every day, students could collect the container carefully without spilling the water in it.
- The amount of rainfall caught in the rain gauge could then be measured using a measuring cylinder.
- In such a fashion rainfall could be recorded over a period of one month. Data could also be graphically represented.
- Average monthly rainfall could be calculated from the tabulated data.



Objective

- To help students make a rain gauge
- To help students measure rainfall using a rain gauge

Place

Home/ School

Group size

Individual/ group

Duration

Over a 24 hour period during the monsoons, to be repeated on rainy days

Suitable time

During rainy season

Materials

Transparent bottle (plastic/ glass), funnel (diameter should be equal to the base of the bottle), cylindrical jar, measuring cylinder, notebook, pencil.

Curricular Linkages

Subject
Geography

Concept
Measuring precipitation