

## Lesson Plan

# Measuring and Recording Rain



### In this lesson each student will learn:

1. How to build a rain gauge.
2. How to read a rain gauge and record data.
3. How to present data on a graph.
4. How to comment on their findings.
5. How to calculate the mean monthly rainfall.

### How do we measure rain?

We use an instrument called a **rain gauge** to measure rain.

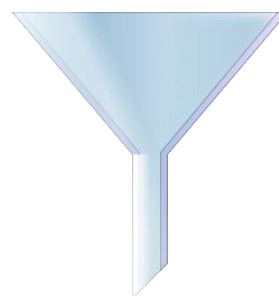
A rain gauge records the amount of rain that has fallen in a particular length of time.

Most rain gauges measure rainfall in millimetres.

### Experiment 1: Recording and measuring rain

#### Materials needed:

- Plastic bottle (1 litre)
- A graduated cylinder
- A funnel
- Permanent black marker
- Water
- Notepad
- Graph paper
- Pen
- Scissors



#### Method:

##### Part 1: Building a rain gauge

1. Cut the top off the plastic bottle.
2. Using the graduated cylinder, pour 10mls of water into the bottle.
3. Mark off 10ml on the bottle with permanent marker.
4. Repeat steps 2 and 3, marking the bottle at 10 ml increments (10ml, 20ml.....)
5. This is the scale used to measure rainfall.
6. Empty all of the water out of the bottle.
7. Place the funnel in the bottle.
8. This is now a rain gauge.

## Part 2: Recording data

1. Place the rain gauge outside in the ground.
2. Each day, record how much rain falls using a notebook.
3. Repeat this everyday for a month.
4. Record the data on the notepad.
5. Choose one month in winter and one in summer to show differences.
6. After a month of recording, draw a graph to represent the data.
7. Plot the days along the horizontal axis and the rainfall along the vertical axis.
8. Join the dots.

## Part 3: Analysing results

1. Ask the following questions:
  - Has the amount of rainfall changed over the month?
  - Are there any differences between winter and summer months?
  - What was the wettest day?
  - What was the driest day?
2. Calculate the average (mean) temperature for the month by adding up the rainfall recorded on each day and dividing your result by the total number of days in the month.