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Credit: K.shinde/UNEP/still pictures

Unwelcome gusts

This activity involves comparing and measuring wind strengths. The activity is spread over the course of a week and will determine which day had the strongest gust of wind.

You will need

- 7 medium-size plastic or foam cups
- Piece of board
- 2 dustbins
- A wide open area, away from buildings
- Water
- Measuring jug

Steps

1

Find an open area away from buildings or other structures that might block the wind. Set two dustbins upside down on the ground several feet apart. Lay a long piece of wood across the dustbins.

2

Place seven paper (or plastic) cups in a row on the board. Leave one empty and, using a measuring cup, pour 50 ml of water into the second cup, 100 ml in the next, 150 ml in the next, and so on.

3

At the end of each day, observe which cups have blown off the board. (The lighter cups are more sensitive to the force of the wind.) The next day, set them up again and refill the cups with water (some water will probably have evaporated). The contents and positions of all the cups must be kept CONSTANT. The wind gusts should be the only VARIABLE in the project.

4

Make a daily record of your observations.

Analysis/ discussion

Did your paper-cup system work as a weather instrument to allow comparisons of the strongest gusts of wind that occurred each day?

What if you found a heavy and a light cup knocked over, but one in the middle still standing? Do you think the results of that day should not be used, as there may have been interference from squirrels, birds or other creatures seeking water?