

Investigating local air quality

Overview:

Find out what is in the air you breathe.

Programme use:

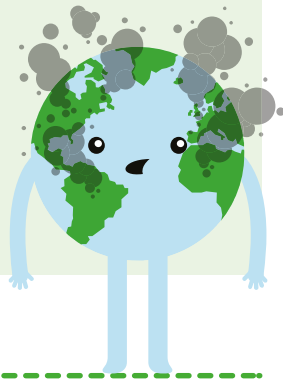
Post-show activity.

Main story:

The quality of air around us changes depending on our location. This simple experiment will allow you to monitor a number of different locations and find out what is in the air you breathe.

Equipment:

- Cardboard
- Ruler
- 1 pence piece
- String
- Scissors
- Sticky tape
- Magnifying glass



How it works?

1. Cut a rectangular piece of cardboard 1 cm x 4 cm
2. Mark three small circles by drawing around a 1 pence piece on the cardboard, one near the top, one near the middle and one near the base.
3. Using the scissors, carefully cut out the three circles so that you have a rectangular piece of cardboard with 3 holes in it.



4. On one side of the cardboard only, stick strips of sticky tape over the holes. One side should now be smooth and the other side should have 3 sticky circles.

5. Attach a piece of string to the top of your cardboard rectangle and hang outside for a day or longer.

6. When you are ready bring your piece of cardboard inside and use your magnifying glass to see what is attached to the sticky tape. You may find pollen, soot or dust, all of these are referred to as particulate matter.

7. Try hanging new collectors in different areas and comparing what you find.

Key take home messages:

- We use sensors to monitor the quality/pollutants in the ambient air
- Different sensors are capable of detecting different air pollutants
- Sensors help us gather data we use to evidence policy/decision making