

Investigation 6 How clean is the air you breathe?

The amount of pollution in the air you breathe can vary depending on where you are. For example, the air in towns and cities tends to be more polluted than in the open countryside. Here's a way to record the amount of air pollution in and around your school.

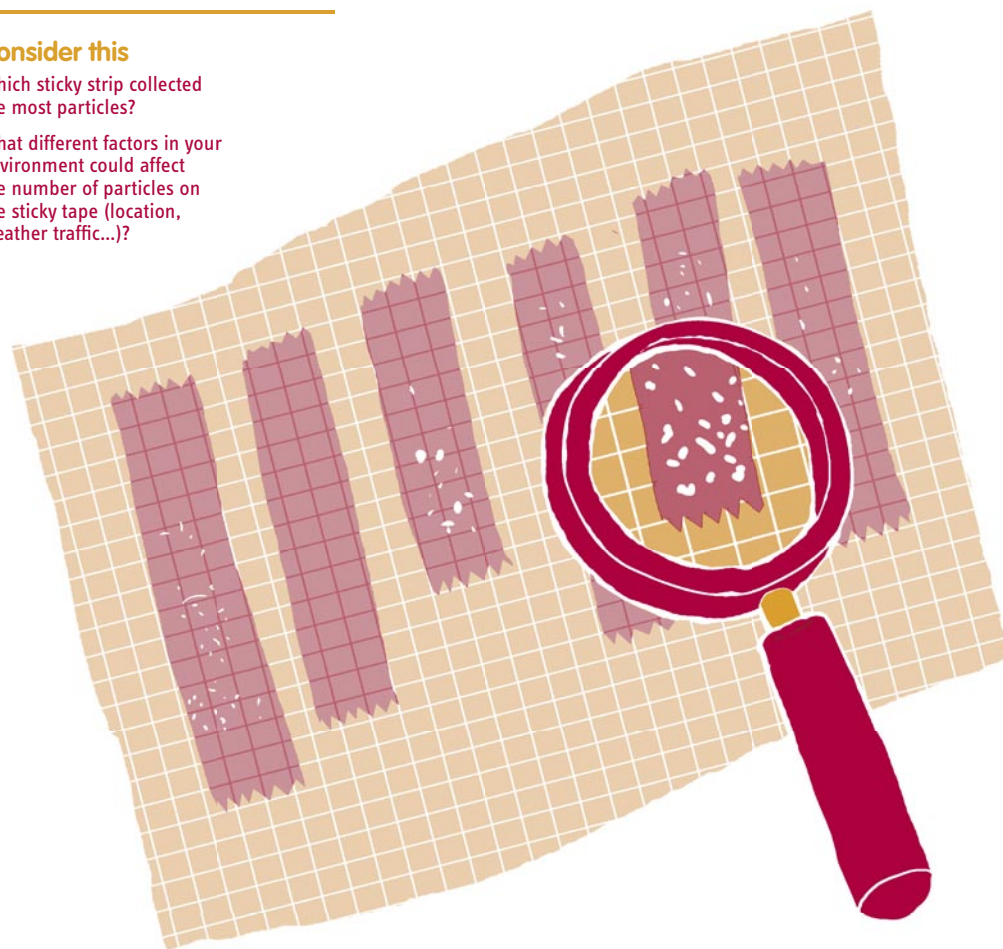
YOU WILL NEED A roll of double sided sticky tape • Some paper clips • Sheets of graph paper • A magnifying glass •

- 1 Cut about ten strips of tape measuring 7cm in length.
- 2 Stick a paper clip onto each strip.
- 3 Remove the backing from the tape and hang the strips in different places around your school grounds, using the paper clips. This will ensure that both sides of the tape are exposed to the air. Make sure you record the exact location of each strip.
- 4 After a few days, collect the strips and stick them onto the graph paper.
- 5 Using the magnifying glass, count how many particles you can see in each square on the graph paper for each strip.
- 6 Calculate the average amount of particles, per graph square, on each sticky strip.
- 7 Record the location of the strip and the amount of particles on a data sheet.

Consider this

Which sticky strip collected the most particles?

What different factors in your environment could affect the number of particles on the sticky tape (location, weather traffic...)?



Tell Me More!

All communities have some air pollution, but areas in and around cities are usually worst affected. More than a quarter of Ireland's population lives in urban communities and therefore experience higher levels of pollution.

In the early 1980s Dublin city centre had a severe smog problem because of the high amount of coal being burnt. Smokey fuels were subsequently banned from Dublin city and the smog problem decreased dramatically. Since then a number of towns in Ireland have introduced a similar ban, allowing only smokeless fuels to be burned.

In your classroom, there could be particles of dust and chalk in the air you breathe. In small amounts they do not do you any harm, but the continued presence of more harmful air pollutants could affect your health.