

Rocks and soil investigations

1. Test how porous rock are with this easy experiment.

Collect three different types of rocks. Try to find similar sized pieces of rock. Predict which rock will be the most porous (absorb the most water). Fill three clear cups with water and mark the water level with a pen. Place the rock samples in the water and leave for an hour. Take the rock samples out of the water and see which rock has absorbed the most water.

2. Look in your local area and collect different types of rock. Can you work out what types of rock they are?

3. Fill a plant pot with soil and the same sized plant pot with sand. Which will hold the most water? This experiment depends on the type of soil you use, but you will probably find that the soil will hold more water than sand. This is because soil particles are smaller than the sand particles and as a result will have a larger surface area allowing the soil to hold more water.

4. Put some soil from your garden in a large clear pop bottle. Fill with water and shake. Leave the bottle for a week and see what happens to the soil as it settles out. You should find the heaviest particles settle first and the lightest particles settle last.

5. Test how freezing will affect rocks with this simple experiment. Find three different types of rock. Predict which rock will be most affected by freezing. Place them in a plastic container filled with water and freeze for a few days. Remove the container from the freezer and thaw. Repeat these steps several times. Record what happens to each rock after each step by taking measurements, weights and photographs.

6. Try making a compost bin and see how organic matter is decomposed (broken down). Or if you have a compost bin, find out about how they work. Draw a diagram and label it to show what you have found out.

Please remember to be safe around soil. It is important to:

- always wear gloves;
- always wash your hands;
- keep the soil away from your nose and mouth;
- not smell or taste the soil.