



DIRT UP CLOSE

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Dirt is everywhere, but what exactly is it? When we talk about dirt, most of the time we are really talking about soil. There are many different kinds of soils in Australia. They also **vary** from area to area. They vary in how useful they are for supporting different plants, and for growing food.

Soil is formed when rocks, dead plants and animals break down and mix together. The usefulness of an area's soil depends on the main type of rock it came from, as well as the amount of plant and animal matter in it. There are three main types of soil in Australia: sand, clay and silt. Another soil type is loam, which has roughly equal proportions of sand, silt and clay.



◀ The four different types of soils

FACT!

Soil does not form quickly. It can take up to 1000 years for just a few centimetres of soil to form.



Sandy soil

Many areas have soil with a lot of sand in it. These soils are not ideal for plant growth because water and **nutrients** pass through them. The plants are unable to get enough food and water from them.

Clay soil

Soils with lots of clay in them are much better at holding onto **moisture**. This is because the particles in clay are very small and close together. The main disadvantage of clay soils is that they can easily become **waterlogged**. This can be just as bad for plants as having too little water.

Silt soil

Silt is like a dust, made from tiny pieces of rock that are bigger than clay particles but smaller than sand. When plant and animal materials are added to them, they can be very good for plants.

There can be a range of sand, clay and silt soils in the same area. The best soil for farming has a good mix of all three types: it holds on to the nutrients that plants need but lets **excess** water drain away.



▼ A high-quality farming soil

◀ Clay soil is smooth and sticky when wet. It holds its shape well.



QUESTIONS

1. What would be the ingredients of an ideal soil?
2. Explain why you think being waterlogged is just as bad for plants as not getting enough water.
3. The prefix *dis-* means 'not'. Can you locate a word with the prefix *dis-* on the topic card? Think of two more examples of your own.
4. Use the QR code (or <http://qrs.ly/7k4zb30>) to watch a video about an animal that lives in the soil. How does the work of earthworms help plants grow?
5. Use the interactive tool at <http://qrs.ly/ym4zb3d> to explore how too much or too little of a plant's needs can affect its health.
6. After exploring the interactive tool in Question 5, create a gardening guide that would inform someone of how to create the perfect growing conditions for their plants.

Scan the code to link to a video about an animal that helps keep soil healthy.

