



Geography

Extreme Earth

Under Our Feet

Extreme Earth



Aim

- To describe what you find underground.

Success Criteria

- I can recognise that there is rock under all surfaces.
- I can list the layers that make up the Earth.
- I can create and label a cross-section of the Earth.
- I can compare the Earth's structure to a familiar object.

What Would You Find?



Imagine you are digging this hole.



What is at the bottom of the hole?

What different things might you find as you are digging?

Where would you end up?

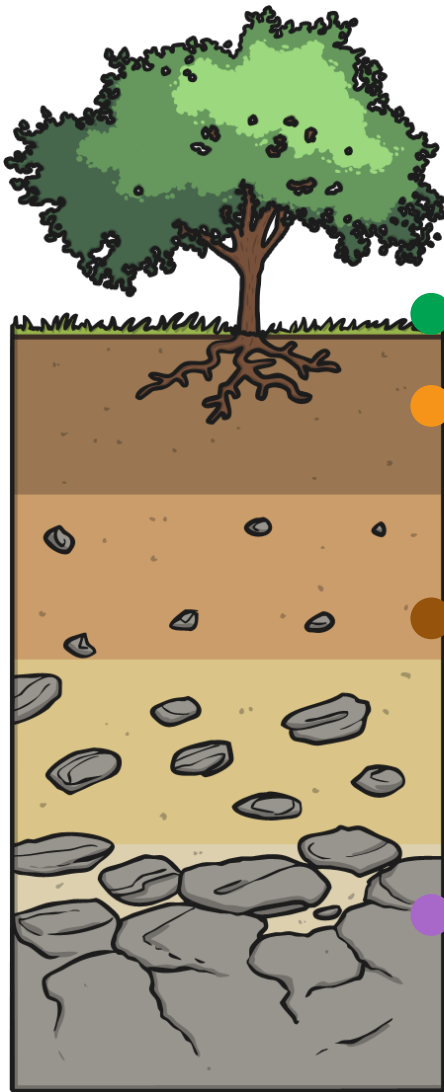
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Welcome on board the
Underground Explorer!



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Layers of Soil



Humus

The very top layer of soil, made up of rotting dead leaves and animals.

Topsoil

Where plants grow their roots. Very few rocks.

Subsoil

More rocks and stones in clay. This soil is full of nutrients. Tree roots may reach into this soil. You might find fossils here.

Bedrock

A mass of rock such as granite, basalt, quartzite, limestone or sandstone. You might find fossils here.

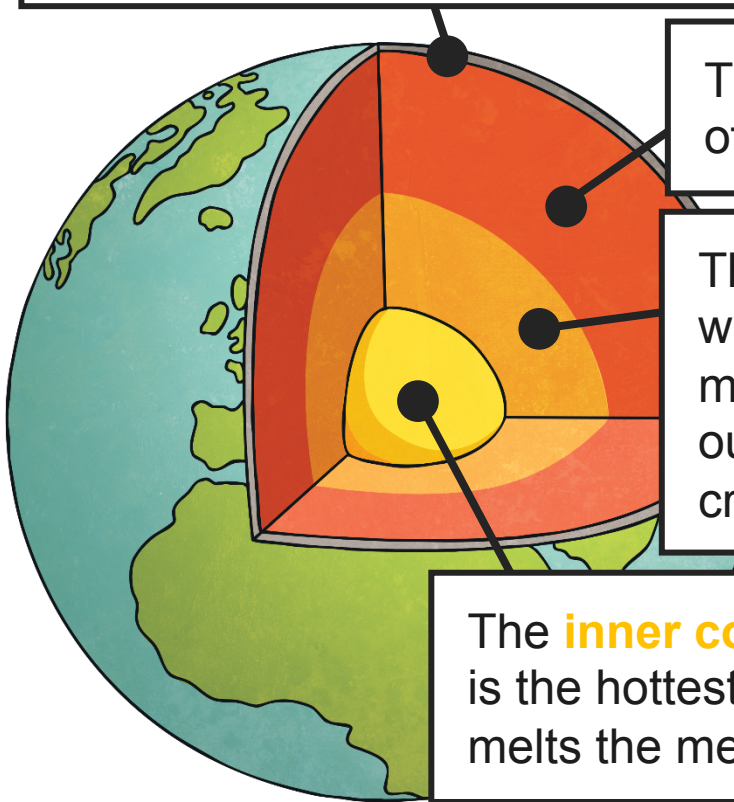
Layers of the Earth

The **crust** is the thin outer layer of cold, hard rock that covers the Earth. It is 10km-90km thick.

The **mantle** (extremely hot rock that often flows like treacle) is 3000km thick.

The **outer core** is mostly made up of iron, with some nickel. It is over 4000°C. It is mostly liquid with some rocky parts. The outer core moves around the inner core, creating the Earth's magnetism.

The **inner core**, which is made of iron and nickel, is the hottest layer of the Earth at over 5000°C. It melts the metals in the outer core to form magma.





What Is Under Your Feet?

Use the equipment on your table to show the different layers that make up Earth.

Make a Model Earth

You will need:

- modelling clay in red, yellow, orange and brown
- rolling pin



1 Make a small ball of red clay. This is the inner core.



2 Roll out a thick yellow sheet of clay and wrap it around the red ball. This is the outer core. Repeat with a thick layer of orange clay for the mantle.



3 Roll out a thin layer of brown clay and wrap around your model Earth. This is your crust.



4 You could also add a very thin layer of blue clay to be the seas and then some very thin green, brown and white to be the land. Use a globe to help you place your land.



5 Finally, cut your Earth very carefully in half to see all the layers inside.



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Inside the Earth

Describe what you find underground.

Label the Earth and label each section.



Label each layer:

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Inside the Earth

Describe what you find underground.

Label the Earth and label each section.



mantle

outer core

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Try to think about the size of each different layer! The crust is thin, but the mantle is very thick.

What's That Like?



Watch this [video](#) comparing the Earth's structure to a peach.



How is the comparison accurate?

How is the structure of the Earth different to that of a peach?

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