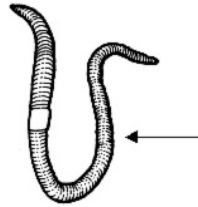


Living underground

Earthworms, ants, and grass grubs live some or all of the time under the ground in the soil.

a) On each animal label at least 2 parts of its body that help it to live in the soil. Describe how each part you have labelled helps the animal live in the soil. Hint: Features include size, shape, legs, covering, mouth, etc. The first has been started for you.



Earthworm (Toke)

A long thin body for easy movement through narrow spaces.

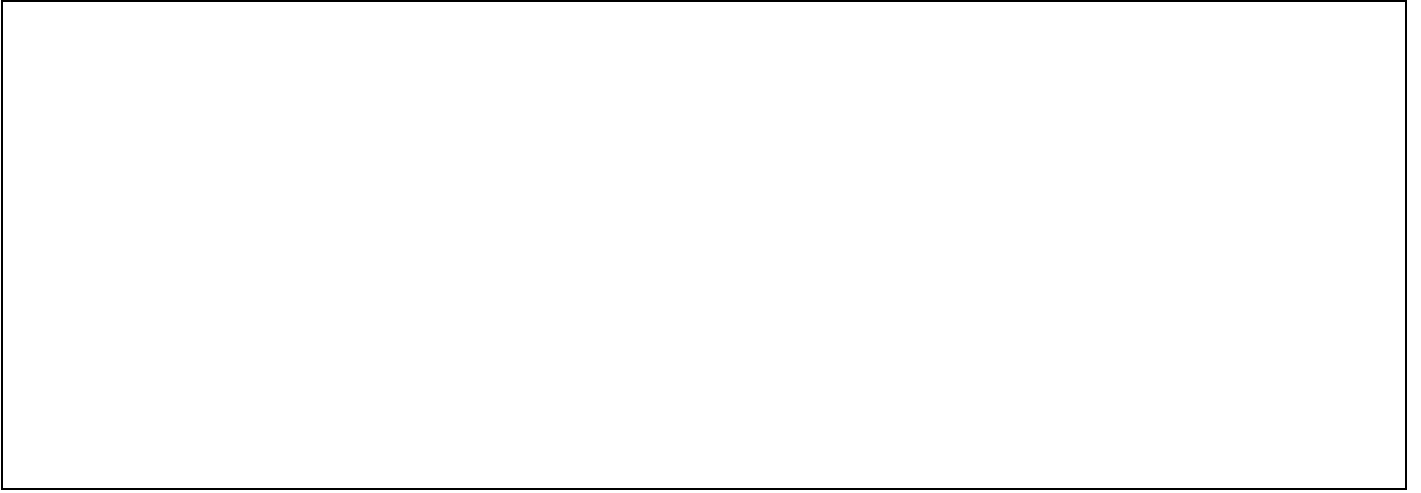


Ant (Popokorua)



Grass grub

b) Imagine that you have found a new species of animal that lives its whole life underground in the soil. Make a detailed drawing to share your discovery with other scientists. Label all the parts that help it live underground. Hint: think about what sort of features it would need to live in the soil.



Now use one of the self-assessment sheets to evaluate your animal.

Use this self-assessment sheet if your animal is an invertebrate (has no backbone). (Insects, worms and spiders are examples of invertebrates.)

<p>The following features are useful for living in the soil. Tick the features that your animal has.</p>	<p>The following features are not useful for living in soil. Cross the features that your animal has.</p>
<ul style="list-style-type: none"><input type="checkbox"/> A long thin body for easy movement through narrow spaces.<input type="checkbox"/> No legs or small legs for easy movement through narrow spaces.<input type="checkbox"/> Slimy covering to help slide through soil.<input type="checkbox"/> Tiny bristles or hairs to help move through soil.<input type="checkbox"/> Strong jaws for eating roots under the soil.<input type="checkbox"/> Strong mouth muscles for eating soil.<input type="checkbox"/> A way of carrying soil.<input type="checkbox"/> Able to bend easily for moving through tunnels, e.g., a segmented body.<input type="checkbox"/> Small size to live in small spaces in soil.<input type="checkbox"/> Antennae or other sense organs for smelling or feeling.	<ul style="list-style-type: none"><input type="checkbox"/> Eyes. They are only useful when there is light to see.<input type="checkbox"/> Long legs. They are likely to get in the way.<input type="checkbox"/> Big size. They would have to construct large tunnels to move through the soil.<input type="checkbox"/> Shaped like a ball. This is not a good shape for moving through soil.<input type="checkbox"/> Wings

Evaluation

An animal that lives underground will need more useful features than features that are not useful.

Has your animal got more ticks than crosses? Yes / No

Is your animal well adapted to live in the soil? Yes / No

Name 2 things you would now change about your animal.

1.

2.

Use this self-assessment sheet if your animal is a vertebrate (has a backbone).
(Rabbits, birds, snakes, and lizards are examples of vertebrates.)

The following features are useful for living in the soil. Tick the features that your animal has.	The following features are not useful for living in soil. Cross the features that your animal has.
<input type="checkbox"/> A long thin body for easy movement through narrow spaces. <input type="checkbox"/> Strong front legs for digging. <input type="checkbox"/> Short legs, or no legs. <input type="checkbox"/> Sharp claws for digging. <input type="checkbox"/> Pointy nose. <input type="checkbox"/> Some way of sensing their environment (such as whiskers, a good sense of smell).	<input type="checkbox"/> Very hairy coat. This would affect its ability to move freely. <input type="checkbox"/> Long legs. They are likely to get in the way. <input type="checkbox"/> Big size. They would have to construct large tunnels to move through the soil. <input type="checkbox"/> Shaped like a ball. This is not a good shape for moving through soil. <input type="checkbox"/> Good eyesight. (Eyes cannot see in the dark).

Evaluation

An animal that lives underground will need more useful features than features that are not useful.

Has your animal got more ticks than crosses? Yes / No

Is your animal well adapted to live in the soil? Yes / No

Name 2 things you would now change about your animal.

1.

2.
