



Science

Living Things and Their Habitats



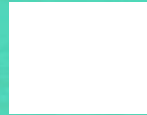
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Invertebrate Hunt



Aim

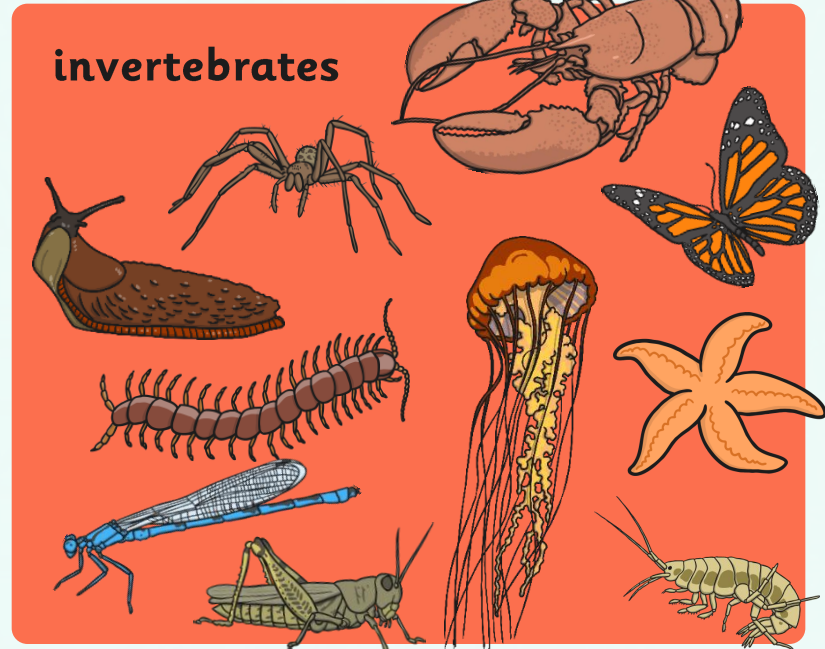
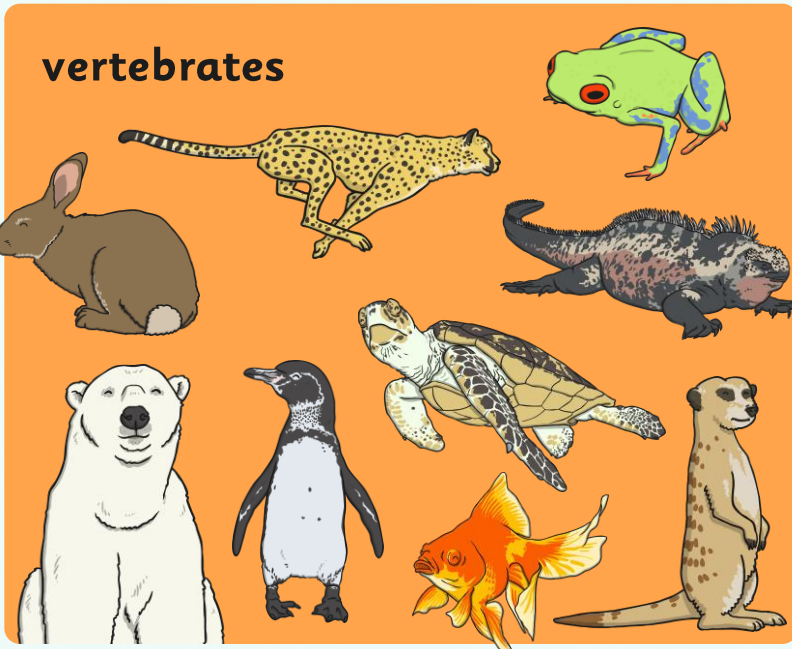
- I can use a key to identify invertebrates.
- I can use evidence to identify an invertebrate.

Success Criteria

- I can answer the questions in a key by looking closely at invertebrates.
- I can use a key to name the invertebrates I have found.
- I can identify invertebrates by looking at their characteristics.
- I can explain how I have used evidence to do this.



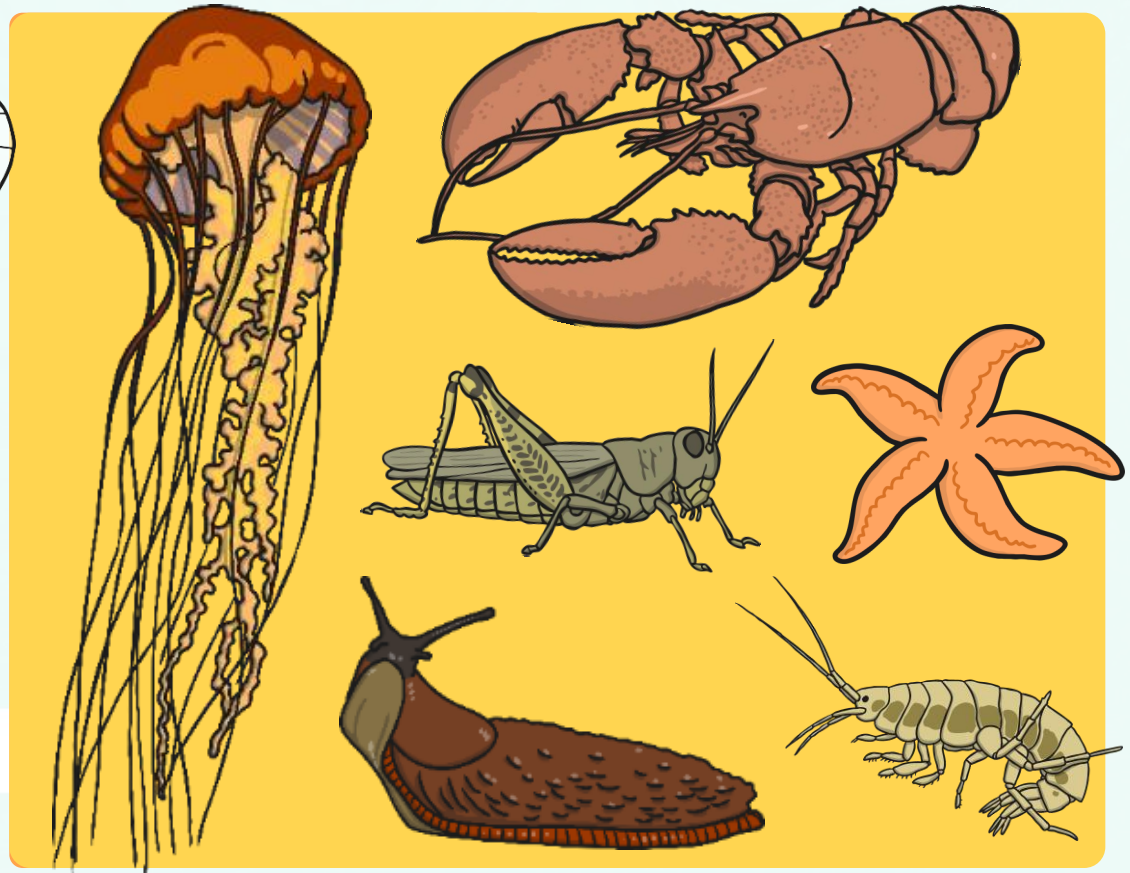
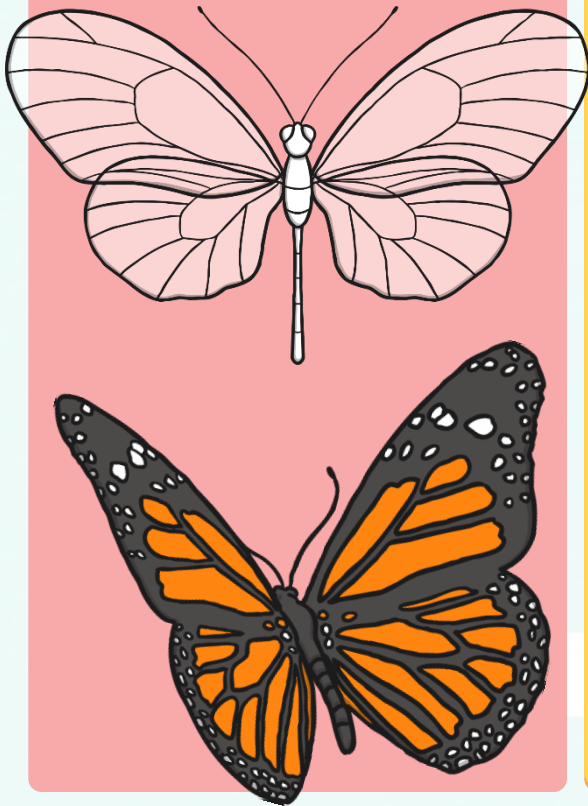
Classifying Invertebrates



When looking at animals, scientists usually split them into two groups: **vertebrates** (animals **with** a backbone) and **invertebrates** (animals **without** a backbone).

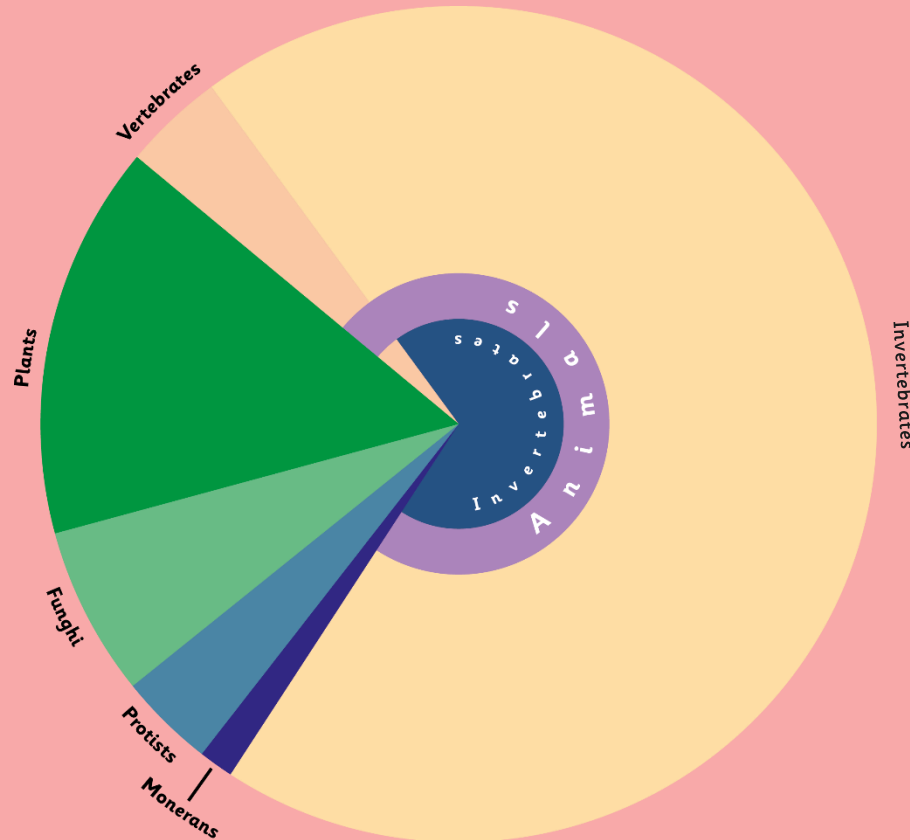
Classifying Invertebrates

Invertebrates do not have a backbone, or a skeleton made of bones. Many have a hard shell outside their bodies to protect them. Others have soft, flexible bodies.



Classification

More than 80% of living things on the planet, and 98% of animals, are invertebrates.



Classifying Invertebrates

Insects



There are over 800 000 different types of insects.

They have an exoskeleton covering their body.

The body consists of 3 parts: the head, thorax and abdomen.

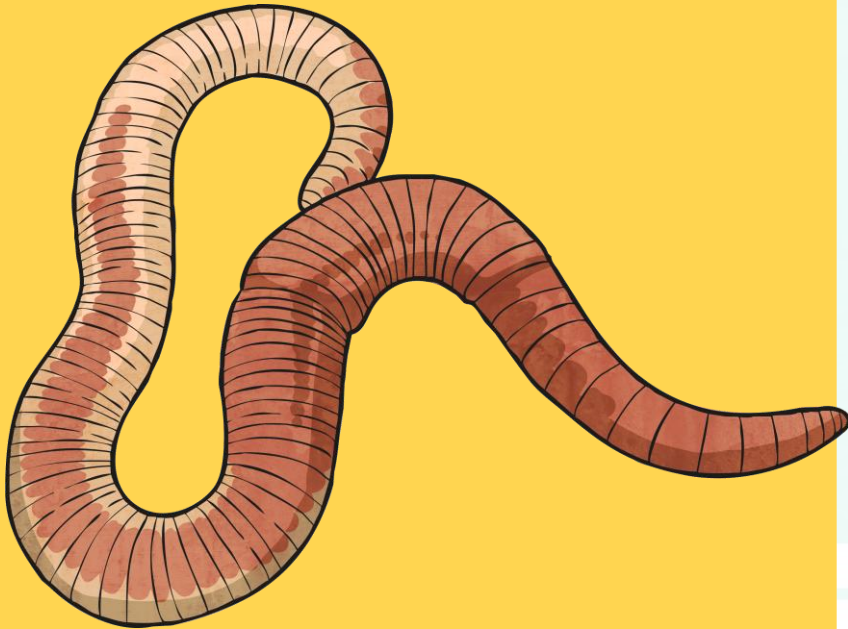
They must shed their exoskeleton in order to grow.

They have a pair of antennae on their head.



Classifying Invertebrates

Annelids



They have existed for over 120 million years.

There are over 9,000 species, including worms and leeches.

They have bodies divided into segments.

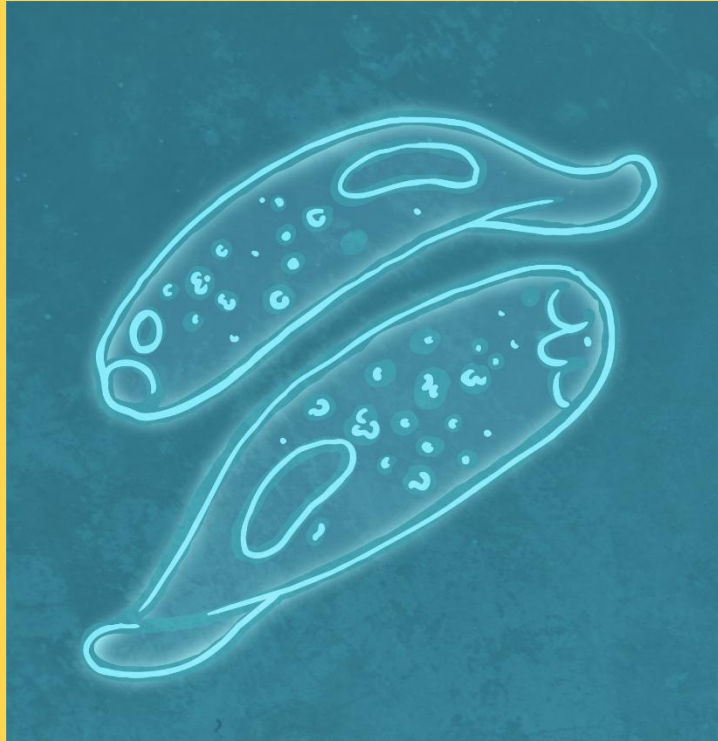
They don't have any limbs.

Some have long bristles; others have shorter bristles and seem smooth.



Classifying Invertebrates

Protozoa



They eat tiny algae and bacteria.

They can only be seen under a microscope.

They are simple, single-celled animals.

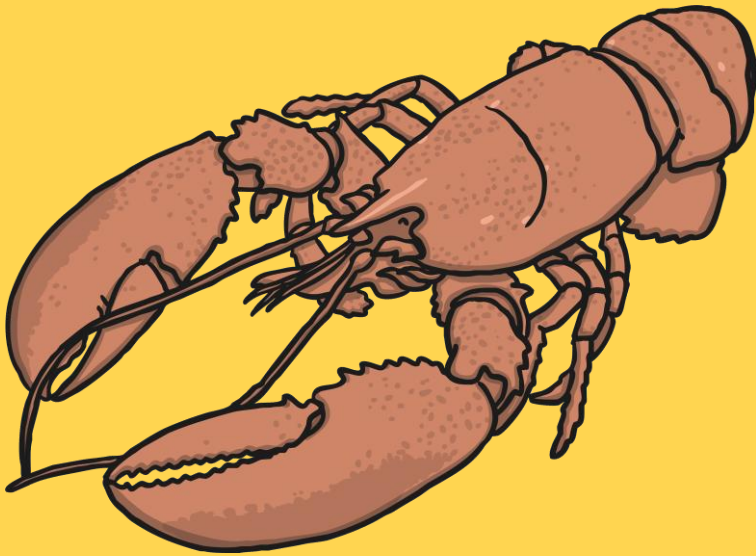
They are a source of food for fish and other animals.

They reproduce by splitting in half.



Classifying Invertebrates

Crustaceans



Most common crustaceans are the crab, lobster and barnacle. Woodlice are also crustaceans.

They have a hard, external shell which protects their body.

They live mostly in the ocean or other waters.

They have a head and abdomen.

Many have claws that help with crawling and eating.



Classifying Invertebrates

Molluscs



They were among the first inhabitants of the Earth.

They live on land or in water.

Most have a soft, skin-like organ covered with a hard outside shell.

Land molluscs move slowly on a flat sole called a foot.

Ocean molluscs attach themselves to rocks or other surfaces, and can't move.



Classifying Invertebrates

Arachnids



Most arachnids have 4 pairs of legs.

The first pair of legs may be used for holding their prey and feeding.

Common arachnids are spiders, scorpions, ticks and mites.

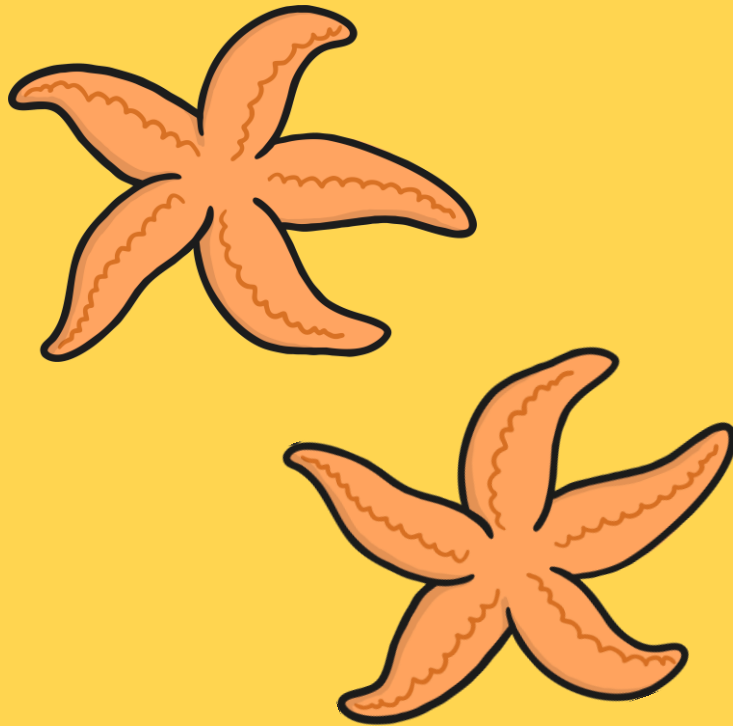
They have a hard exoskeleton and jointed legs for walking.

Arachnids do not have antennae.



Classifying Invertebrates

Echinoderms



They are marine animals that live in the ocean.

Common echinoderms include the sea star, sea urchin, sand dollar and sea cucumber.

They have arms or spines that radiate from the centre of their body.

The central body contains their organs, and their mouth for feeding.

The mouth is underneath, to eat other sea life.



Invertebrates in the Local Environment



A **specimen** is a particular plant or animal that scientists study to find out about its species.

We are going to look for specimens of invertebrates in the local environment.

What kinds of invertebrate do you expect to find?

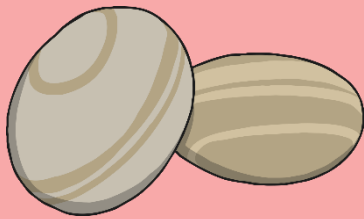
Are there any invertebrates that won't appear in the local habitat?



Invertebrates in the Local Environment

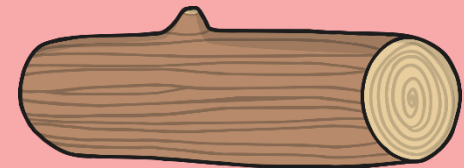


Invertebrates often inhabit small homes called microhabitats. Here are some different microhabitats you might find.



Under stones and rocks

In short grass



Inside or under rotting wood



Under fallen leaves

In and on soil



In tall flowers and grasses

Can you think of any more?



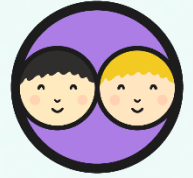
Classification



Because invertebrates are so small, they must be handled very carefully.
How can we observe and capture specimens without causing them any harm?



Invertebrate Hunt



With your partner, find, identify and name invertebrates, using your activity sheet.

Each pair may carefully capture an invertebrate specimen to bring back to class for further study.

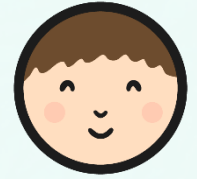
Invertebrate Hunt

When you find an invertebrate, use the Invertebrate Classification Key to find out what it is. Tick it off and draw a quick sketch of it in the box below.

millipede <input type="checkbox"/>	centipede <input type="checkbox"/>	earwig <input type="checkbox"/>	beetle <input type="checkbox"/>	ant <input type="checkbox"/>
caterpillar <input type="checkbox"/>	spider <input type="checkbox"/>	harvestman <input type="checkbox"/>	slug <input type="checkbox"/>	snail <input type="checkbox"/>
worm <input type="checkbox"/>	larvae <input type="checkbox"/>	woodlouse <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

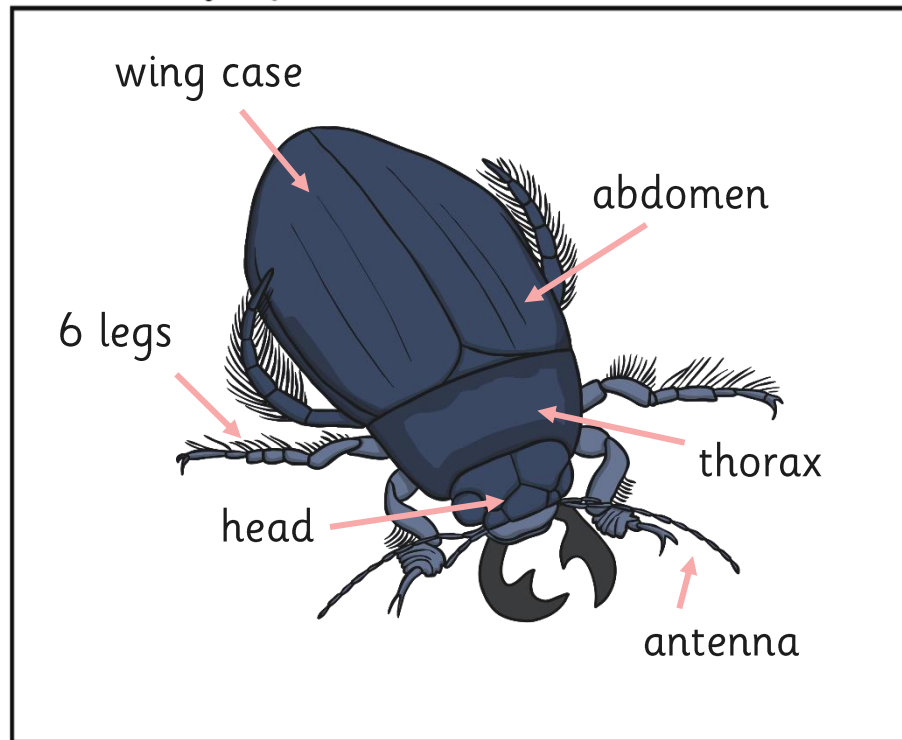


Identifying Invertebrates



Now it is time to identify your specimen!

Draw a labelled diagram of the invertebrate.



Name of invertebrate: beetle

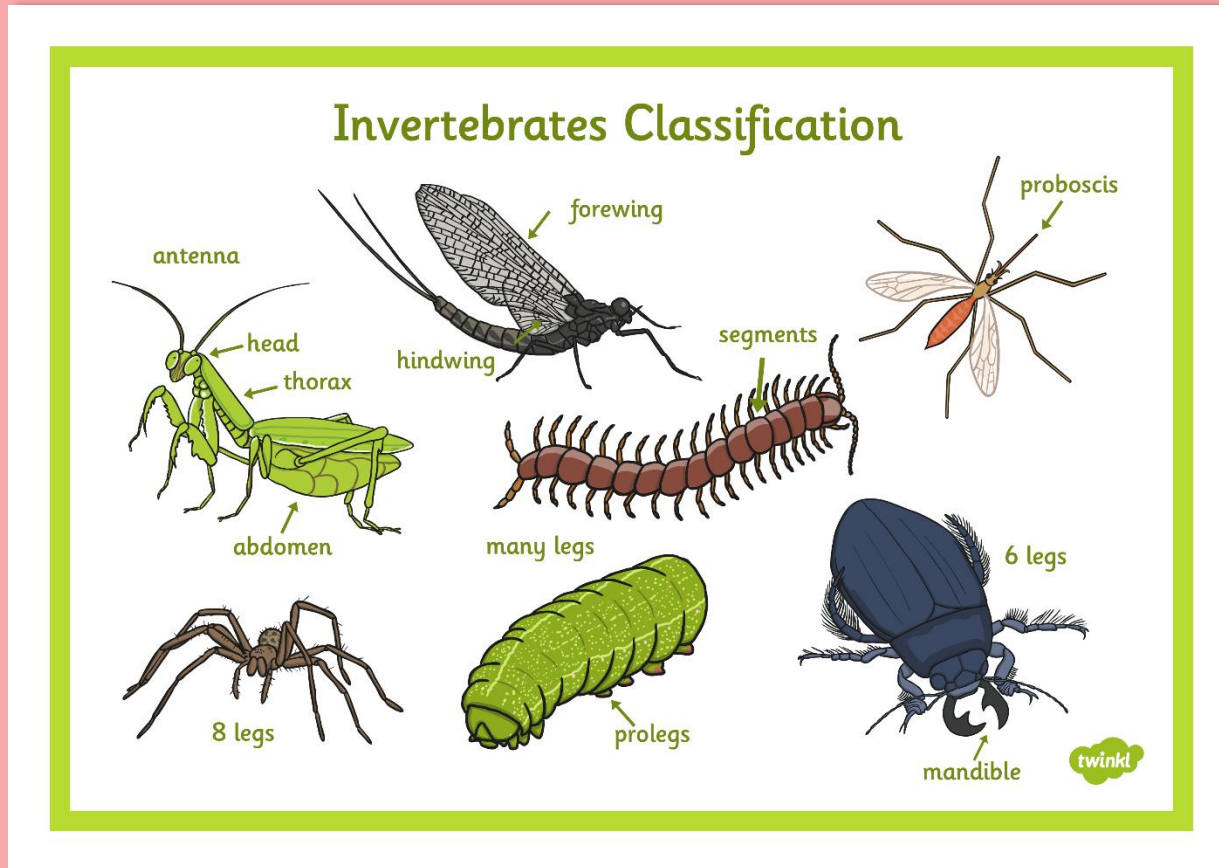
Habitat where it was found:
leaf litter

Characteristics: this invertebrate has 6 legs, a body in 3 parts and a hard wing case. It has antenna. It does not have pincers on its tail.

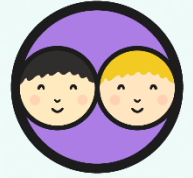
Hint: to find out the characteristics of your specimen, look at the Invertebrates Classification Key to see the questions you have used to identify it.



Identifying Invertebrates



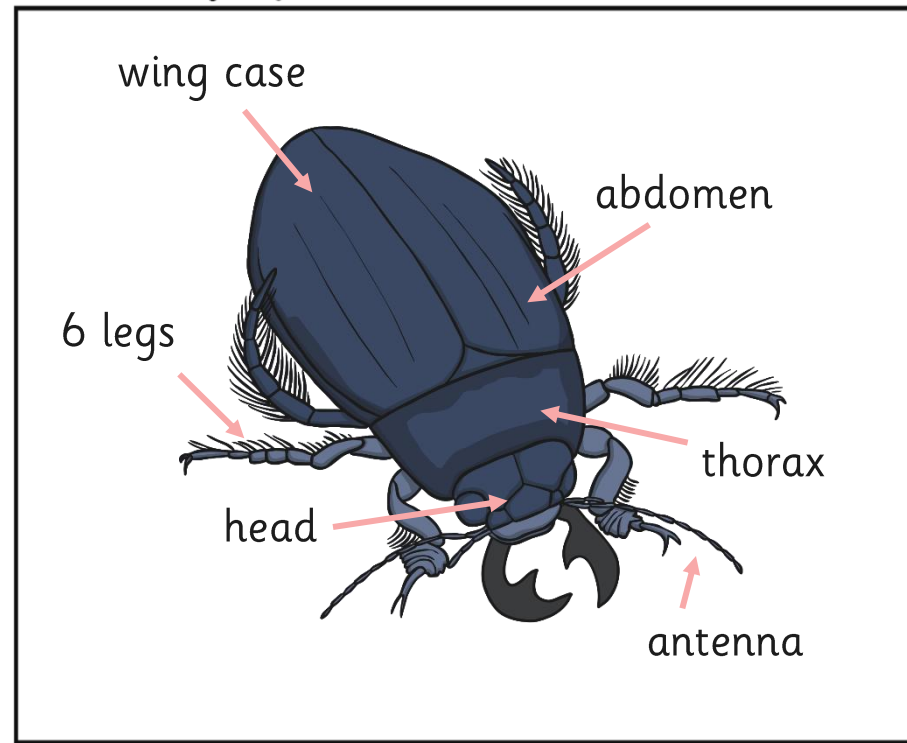
How Do You Know?



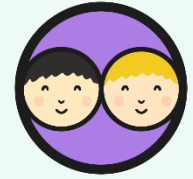
How did you identify your specimen?

Use the Invertebrate Identification Key and the diagram of your specimen to show your partner how you found out what your invertebrate is called.

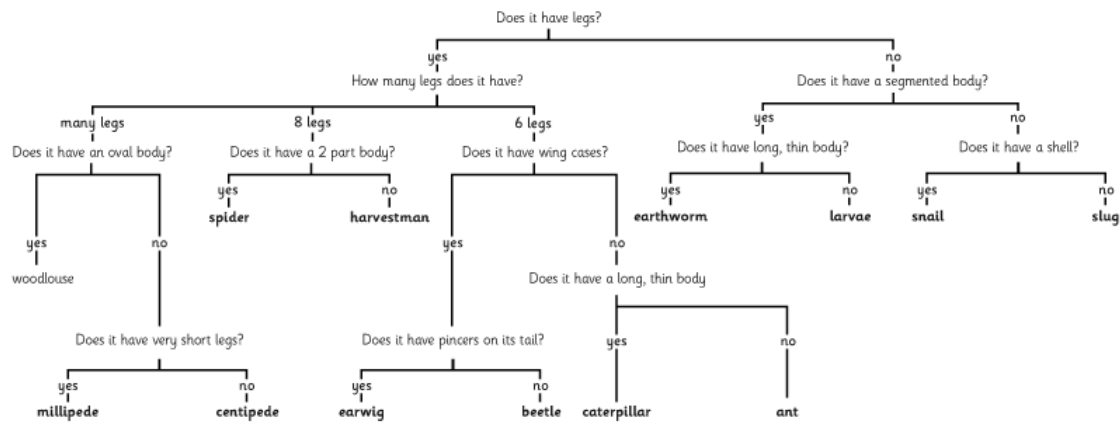
Draw a labelled diagram of the invertebrate.



How Do You Know?



Invertebrates Classification Key



Aim



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