

# Living Things and Their Habitats: Invertebrate Hunt

<p><b>Aim:</b> To explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment by using keys to identify invertebrates found in the local environment.</p> <p>I can use a key to identify invertebrates.</p> <p>Using straightforward scientific evidence to answer questions by explaining how they have identified an invertebrate.</p> <p>I can use evidence to identify an invertebrate.</p>	<p><b>Success Criteria:</b> 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.</p>	<p><b>Resources:</b> <b>Lesson Pack</b> Magnifying glasses Clipboards Items for capturing and carrying invertebrates e.g. paint brushes, plastic spoons, plastic pots with lids Hand sanitiser</p>
	<p><b>Key/New Words:</b> Specimen, invertebrate, thorax, abdomen, antenna, segmented, wing case, mandible, proboscis, prolegs.</p>	<p><b>Preparation:</b> <b>Invertebrates Classification Key</b> - 1 per pair <b>Invertebrate Hunt Activity Sheet</b> - 1 per child <b>Invertebrate Identification Activity Sheet</b> - 1 per child <b>Invertebrates Classification Word Mat</b> - as required Make preparations for a visit to a suitable local habitat.</p>

**Prior Learning:** Children will have been introduced to classification keys in lesson 2.

## Learning Sequence

	<p><b>Classifying Invertebrates:</b> Read the information on the <b>Lesson Presentation</b> to explain the different classifications of invertebrates.</p>	
	<p><b>Invertebrates in the Local Environment:</b> With a partner, children consider the kinds of invertebrate that they may find in the local habitat, where they might be found, and how to handle them.</p>	
	<p><b>Invertebrate Hunt:</b> Children work in pairs in the local environment to <b>find, identify and name invertebrates</b> using the <b>Invertebrates Classification Key</b>. Each child records the invertebrates they have found on the <b>Invertebrates Hunt Activity Sheet</b>. Support each pair to carefully capture an invertebrate specimen to take back to class for further study.</p>	
	<p><b>Identifying Invertebrates:</b> After carefully examining their invertebrate, children individually complete the <b>Invertebrate Identification Activity Sheet</b> by <b>drawing a labelled diagram, writing the invertebrate's name, and describing the characteristics</b> that they have used in identification. Children may use the <b>Invertebrates Classification Word Mat</b> for support if required.</p>	
	<p><b>How Do You Know?</b> Children use their labelled diagram of an invertebrate and the <b>Invertebrate Classification Key</b> to <b>demonstrate to a partner how they have identified their specimen by looking at its characteristics</b>.</p>	

## Taskit

**Factfileit:** Did you find any invertebrates that were not on the key? Research what they were in topic books or on the internet, and fill in this \_\_\_\_\_

**Spotit:** Use this \_\_\_\_\_ to see if your class can tell their arachnids from their amphibians!

**Sortit:** Use these \_\_\_\_\_ to sort common invertebrates into their groups.

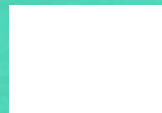


# Science

Living Things and Their Habitats



# Invertebrate Hunt



# Aim

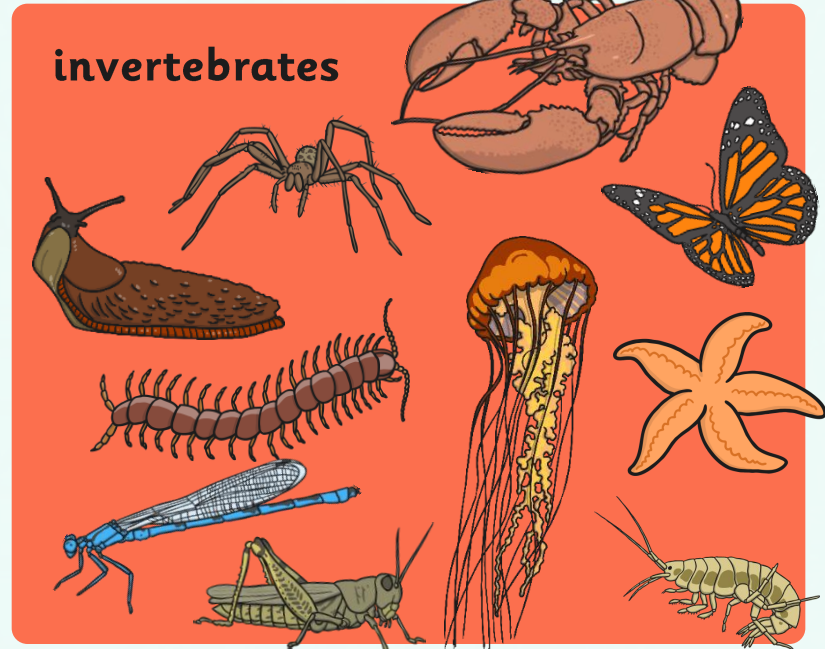
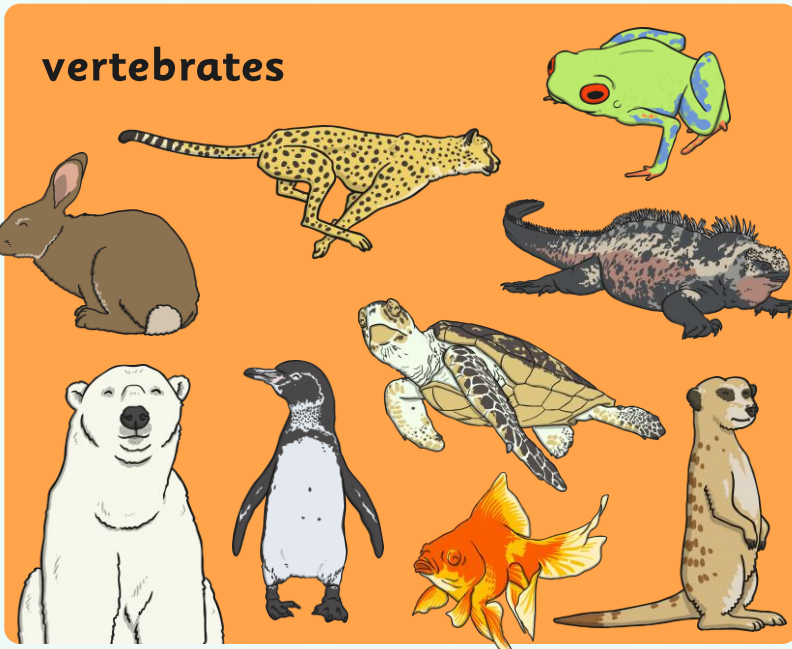
- I can use a key to identify invertebrates.
- I can use evidence to identify an invertebrate.

# Success Criteria

- I can answer the questions in a key by looking closely at invertebrates.
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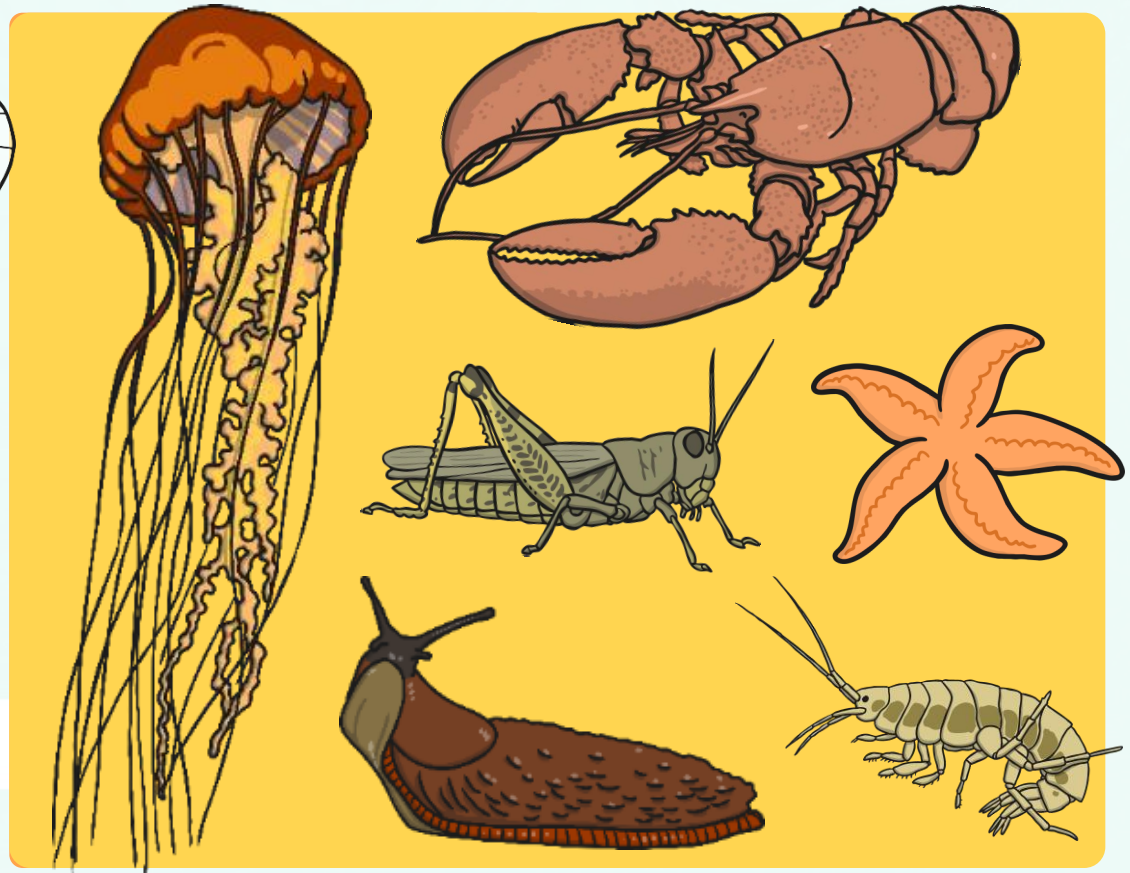
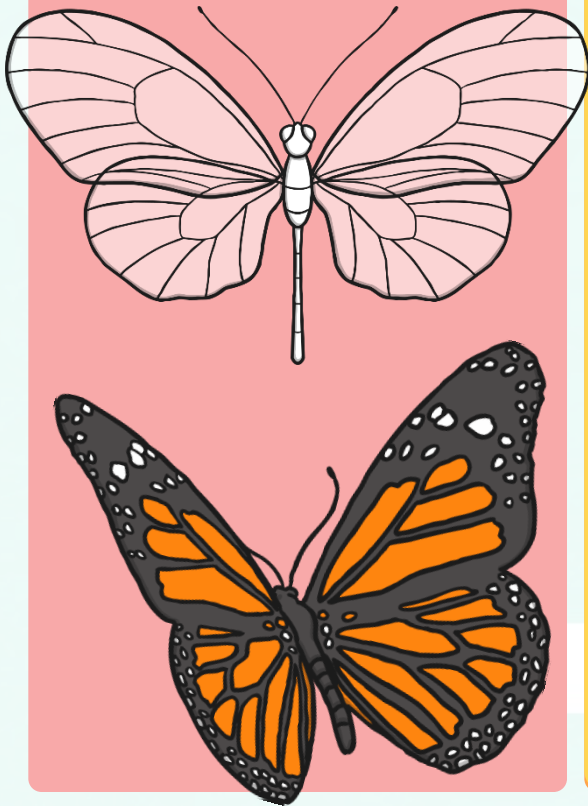
# Classifying Invertebrates



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

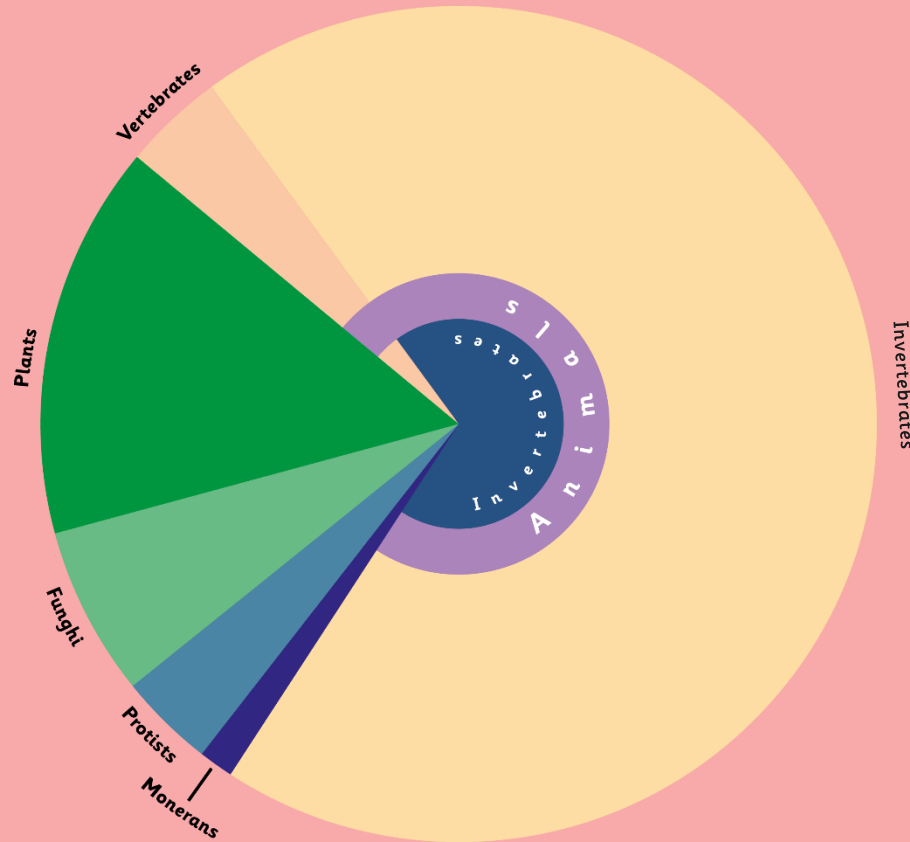
# Classifying Invertebrates

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.



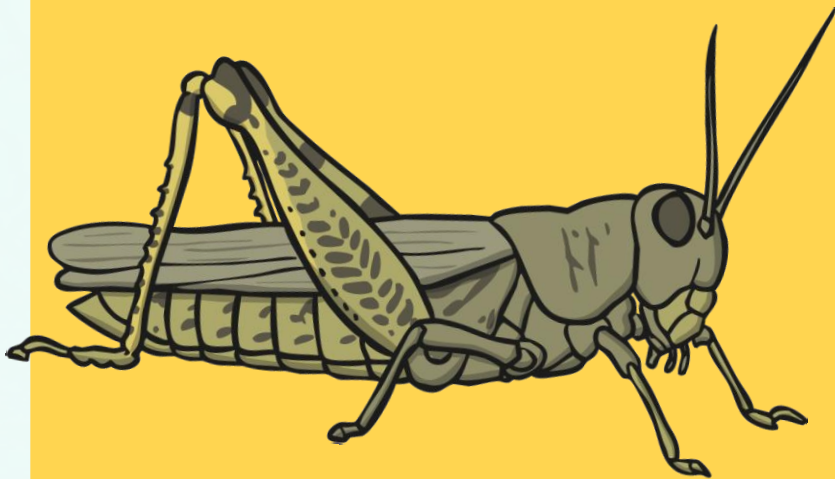
# Classification

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.

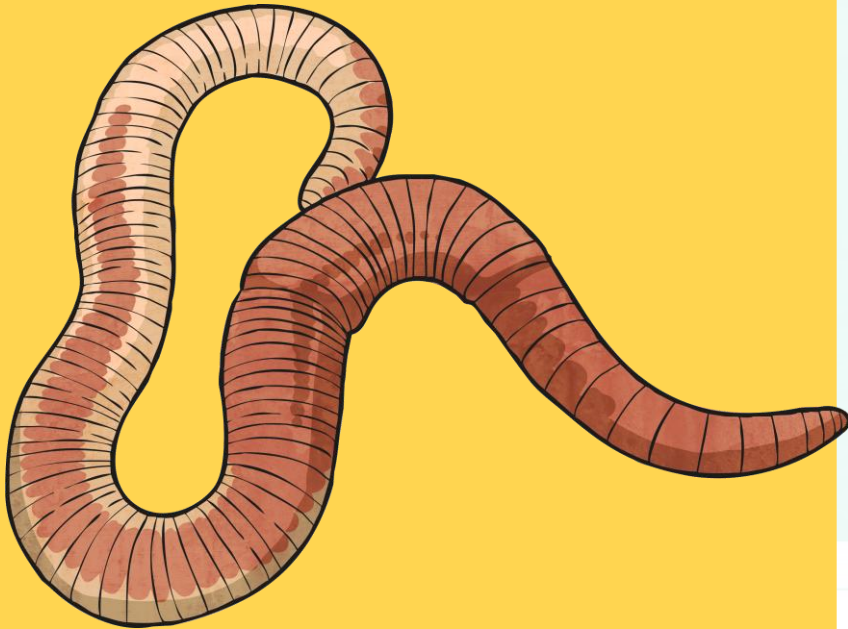
They have a pair of antennae on their head.





# 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.

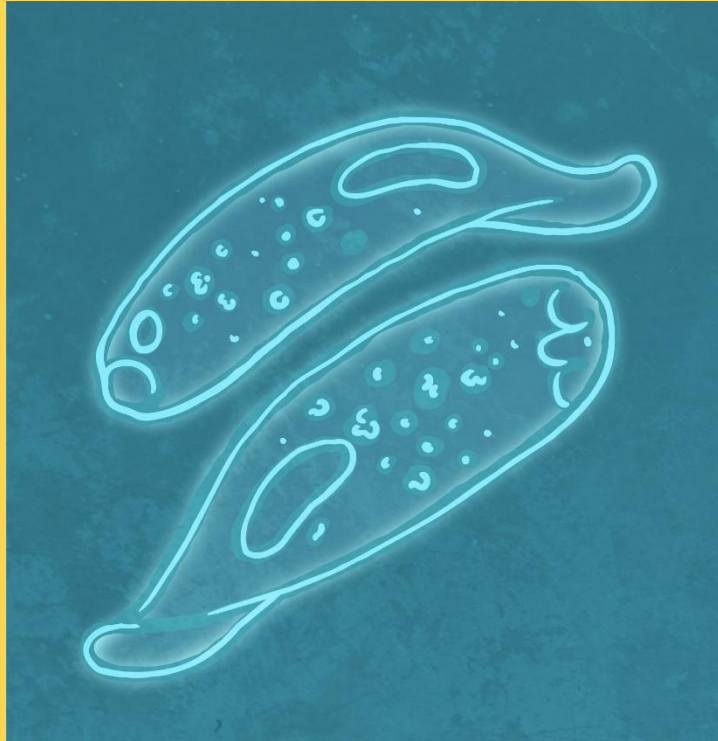
They don't have any limbs.

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.

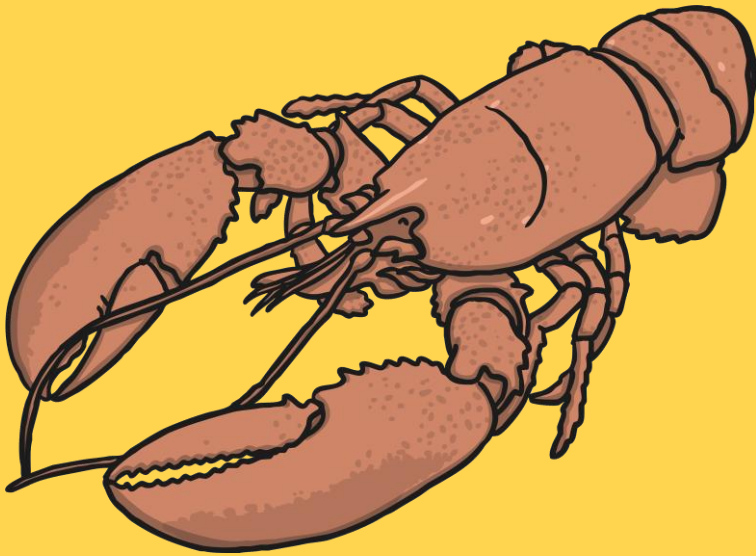
They are a source of food for fish and other animals.

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.

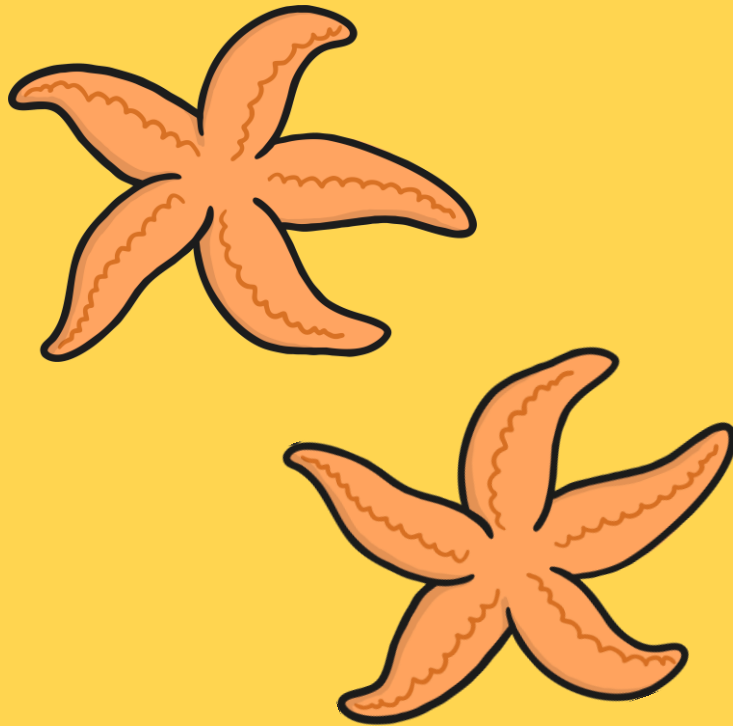
They have a hard exoskeleton and jointed legs for walking.

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?

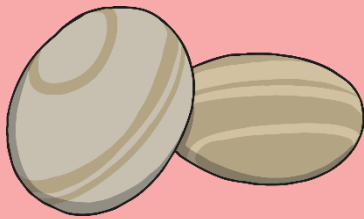
Are there any invertebrates that won't appear in the local habitat?



# Invertebrates in the Local Environment

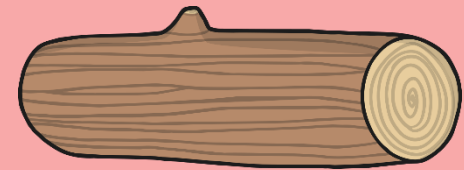


Invertebrates often inhabit small homes called microhabitats. Here are some different microhabitats you might find.



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?





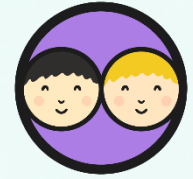
# Classification



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"/>

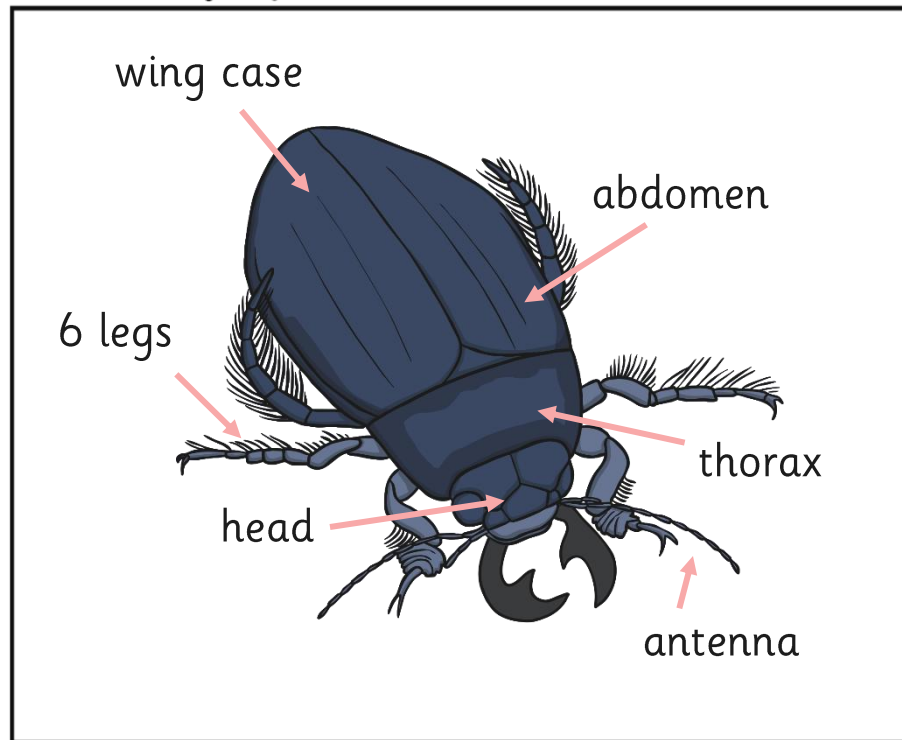


# Identifying Invertebrates



Now it is time to identify your specimen!

Draw a labelled diagram of the invertebrate.



Name of invertebrate: beetle

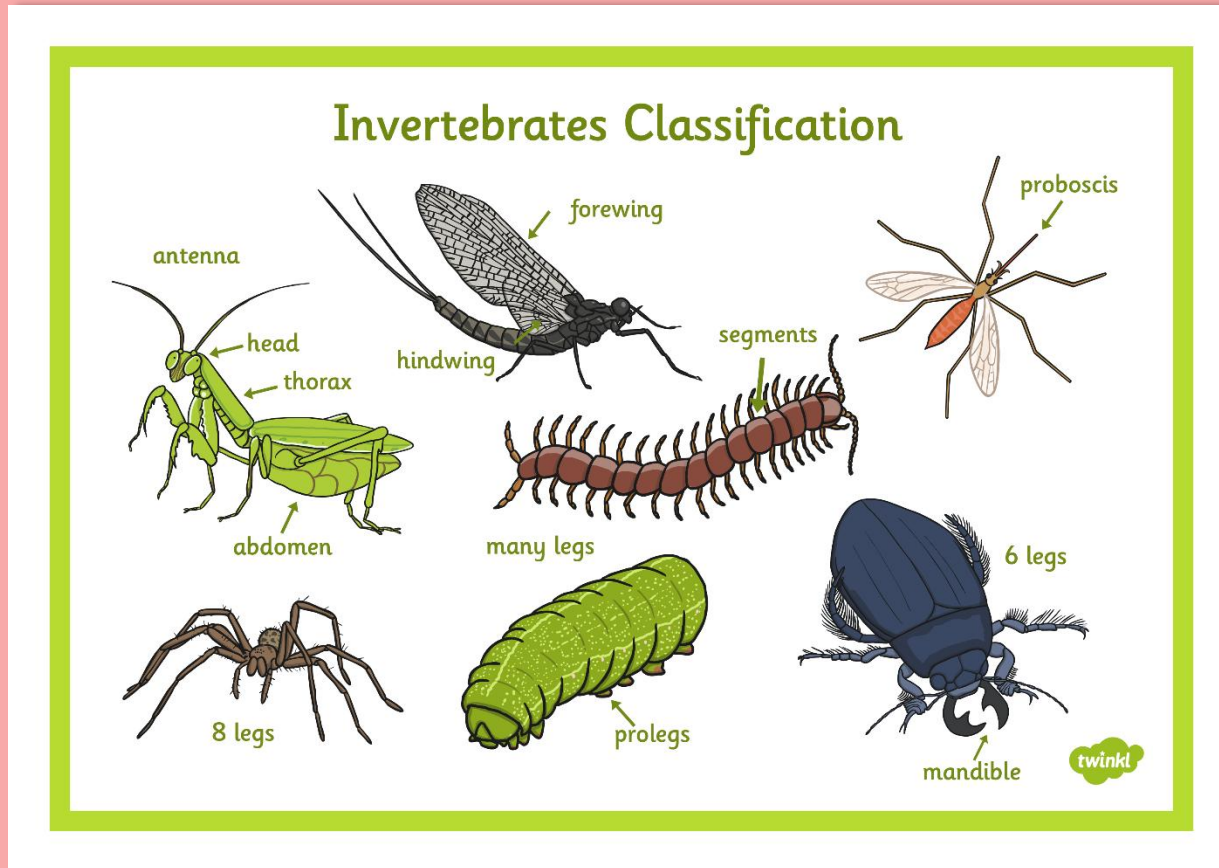
Habitat where it was found:  
leaf litter

**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.

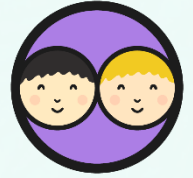
**Hint:** to find out the characteristics of your specimen, look at the Invertebrates Classification Key to see the questions you have used to identify it.



# Identifying Invertebrates



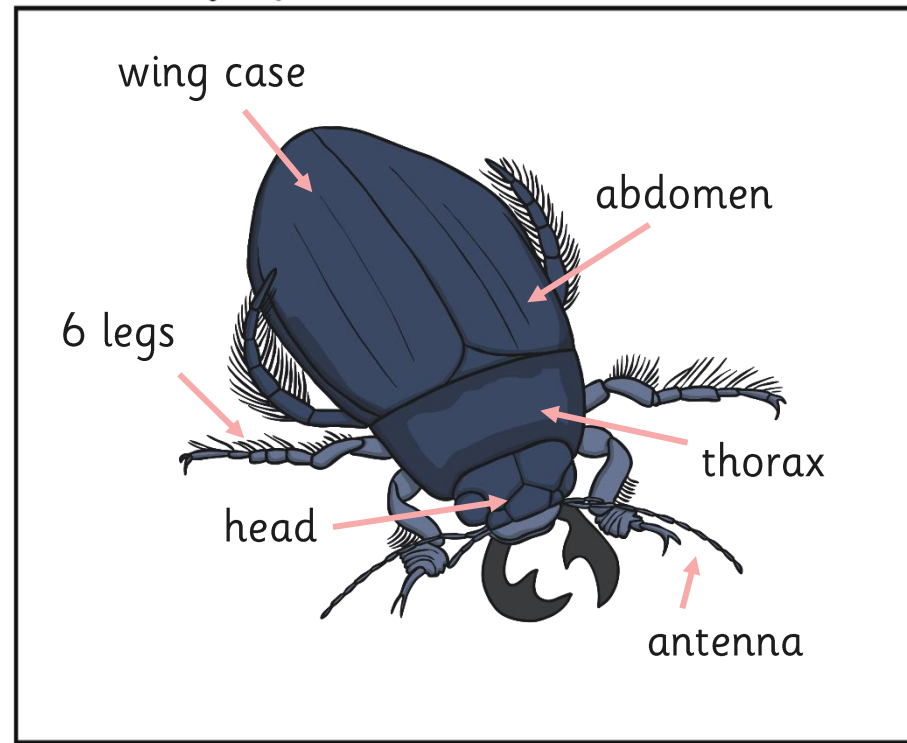
# How Do You Know?



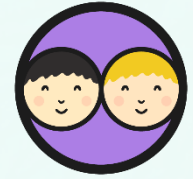
How did you identify your specimen?

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

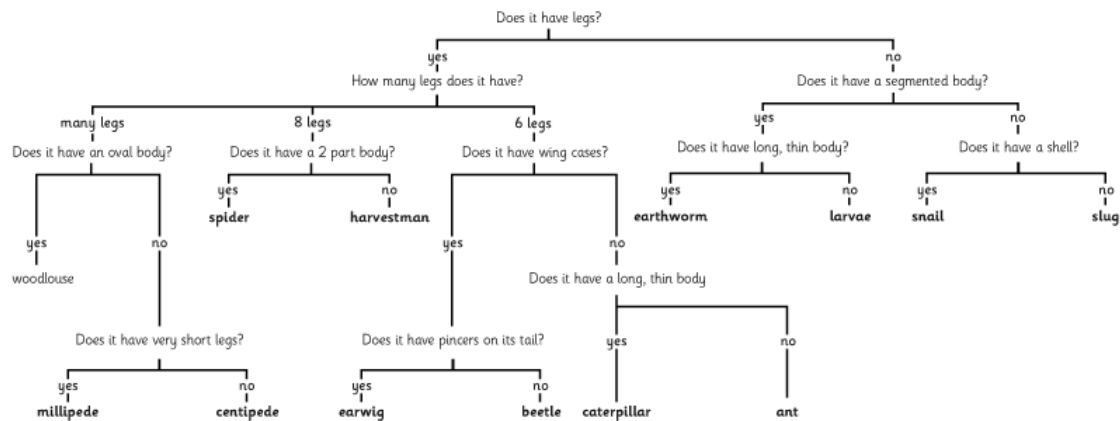
Draw a labelled diagram of the invertebrate.



# How Do You Know?



## Invertebrates Classification Key



# Aim



- I can use a key to identify invertebrates.
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# Success Criteria

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Living Things and Their Habitats | Invertebrate Hunt

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