

Invertebrates

Do you remember what an invertebrate is? Can you think of any examples of invertebrates? What are the features of invertebrates? These are the questions you will be answering in this lesson.

What is an invertebrate?

Can you remember what an invertebrate animal is?

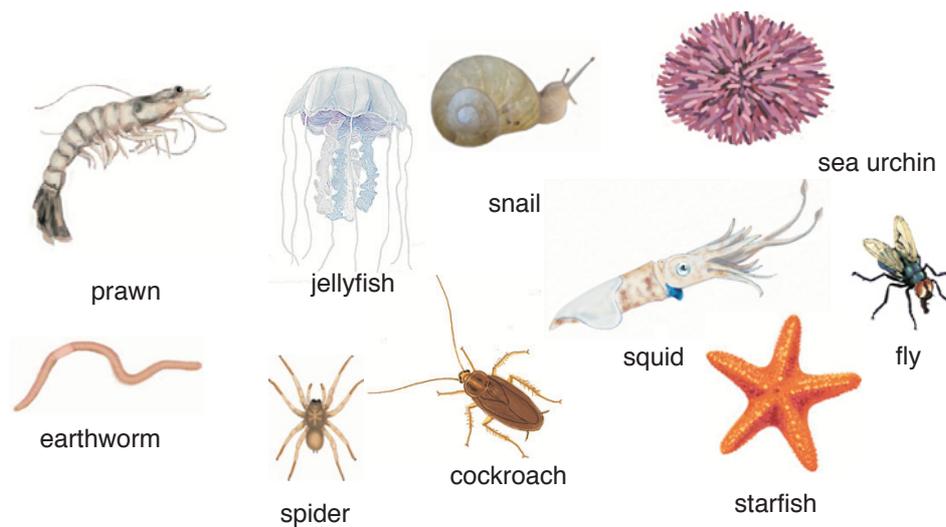


An invertebrate animal is an animal which does not have an internal skeleton

What are some examples of invertebrates?

Invertebrates include sponges, jellyfish, corals, sea anemones, tapeworms, liver flukes, snails, scallops, barnacles, oysters, octopuses, earthworms, leeches, crabs, spiders, ticks, scorpions, centipedes, lobsters, prawns, flies, lice, cicadas, beetles, weevils, moths, starfish and sea urchins. And lots of other creatures!

Invertebrates are a very mixed bag! Because there are so many different types of invertebrates, it is useful to classify them into smaller groups. In this lesson, you will be looking at only seven invertebrate groups.



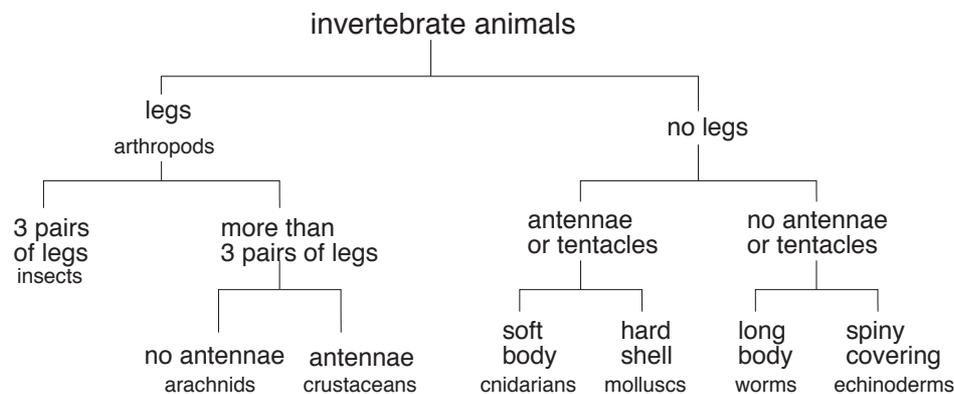
Some examples of invertebrates

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Antenna is one feeler; *antennae* is more than one feeler.

Using a key to classify invertebrates

Here is a key for some invertebrates.



A key for invertebrates

Notice that there are five main groups of invertebrates – arthropods, cnidarians, molluscs, worms and echinoderms. The key also shows that arthropods can be divided into three more groups – insects, arachnids and crustaceans.

Practise using this key in the next activity.



Activity: Using a key to classify invertebrates

Classify the invertebrates shown in the previous picture.

Invertebrate animal	Invertebrate group
jellyfish	
sea urchin	
prawn	
snail	
cockroach	
earthworm	
spider	



Check your response by going to the suggested answers section.

Invertebrates are very different from vertebrates. Therefore, we would expect the features used to classify invertebrates to be very different.

What features are used to classify invertebrates?

Look at the invertebrate key again. What features are used to classify invertebrates?

There are several features used in the key – legs, number of legs, antennae, tentacles, soft body, hard shell, long body and spiny covering.



Are these all structural features?

Yes. They are all things that make up the bodies of animals.



If you like a challenge, read the information and answer the questions on the next few pages.

Describing using a key

You have been using keys to classify and list features. As well, keys can be used to describe animals. Look at some examples.



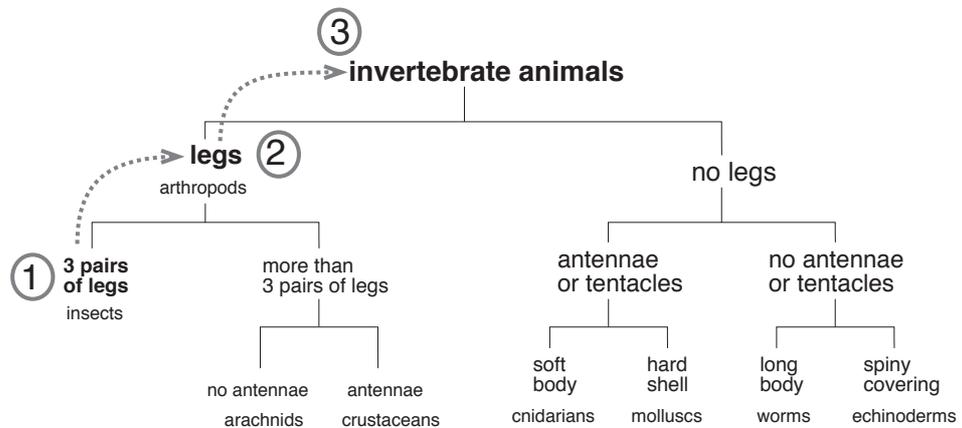
Activity: Describing using a key

Go through the next three examples about describing invertebrates.

Describing insects

- 1 Start at **insects**. Go up to the classifying feature above it, **3 pairs of legs**. Therefore, an insect has three pairs of legs.
- 2 Follow the straight lines upwards to the next feature, **legs**. You already know that an ant has legs, so you can keep going upwards along the lines.
- 3 You'll reach the top group, **invertebrate animals**.

The diagram below shows you how this was done.



Describing insects

From the key, what features do insects have?

Insects have three pairs of legs and they are invertebrates.

Now you can write a sentence describing insects. The description contains the features mentioned above. Remember to write it like a definition.

Insects are invertebrates with three pairs of legs.

Describing molluscs

From the key, what features should be included in a description of molluscs?

Molluscs have a hard shell, antennae or tentacles, no legs and they are invertebrates.

Now, write one or two sentences describing molluscs.

Molluscs are invertebrates with no legs. They have antennae and a hard shell.

Describing crustaceans and cnidarians

Use the key to describe crustaceans and cnidarians.

Description of crustaceans

Crustaceans are invertebrate animals that have antennae and more than three pair of legs.

Description of cnidarians

Cnidarians are invertebrate animals with soft bodies, antennae or tentacles but no legs.

Preparing for the Exercise

You'll use the invertebrate key from this lesson in the next exercise.



Go to the exercises section and complete Exercise: – Invertebrates.

What did you achieve?

Tick what you can do.

use a key to classify some invertebrates

use information from a key to write descriptions of invertebrates

Suggested answers

Check your responses against these suggested answers.

Using a key to classify invertebrates

Invertebrate animal	Invertebrate group
jellyfish	cnidarian
sea urchin	echinoderm
prawn	arthropod and crustacean
snail	mollusc
cockroach	arthropod and insect
earthworm	worm
spider	arthropod and arachnid

Exercise

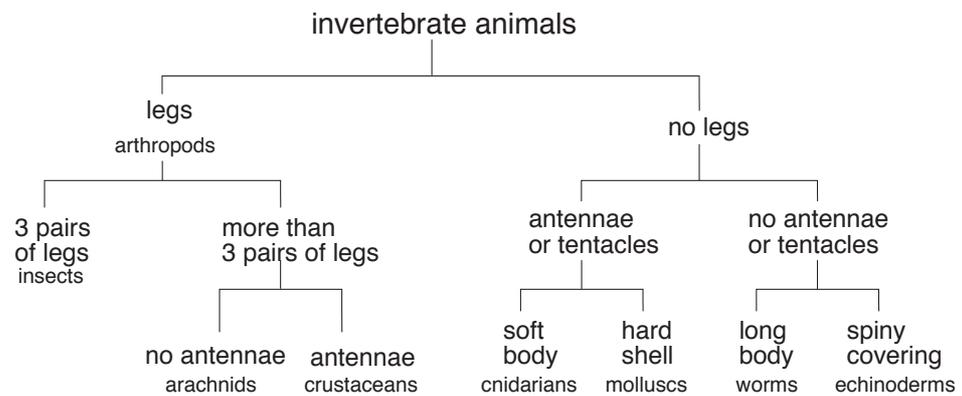
Living things

Name _____

Teacher _____

Exercise– Invertebrates

Here is the key you have been using.



A key for invertebrates

1 Use the key to classify the animal pictured.



a To which invertebrate group does this animal belong?

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b Why did you choose this group?

2 Use the key to write a description of arachnids.



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