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KS2

We're going on a bug hunt!

The Bug Hunt

1. Choose a good place to explore — this could be in your garden, the local park or in and under your outdoor plant pots.
2. Have you equipment ready with you:
    a. Invertebrate Spotting Sheet & pencil
    b. Invertebrate Classification Key
    c. Invertebrate Summary Cards
    d. Plastic spoons and clear bug pots or clear tupperware (optional)
3. Move slowly through the area, searching for invertebrates. The best places to check are under stones and logs, in the cracks of trees, and at the base of long grass.
4. If you need to get a closer look at an animal to identify it, use the spoons to **gently** pick it up and place it into the bug pot or tupperware, then use the Classification Key to identify it.
   Make sure you put the animal back where you found it!
5. **EXTRA TIP** — lay a white sheet or pillowcase under a bush or tree and shake the branches to see what creatures fall out!
6. Record each species you find on your Invertebrate Spotting Sheet, including how many you found and what microhabitat they were in.

The Discussion—answer the following:

1. Did you find the same number of each animal? Why do you think that is?
2. Why were different animals found in different *microhabitats*? For example, butterflies eat the nectar of flowers, woodlice like damp, dark places.
3. What would happen if all the plants were taken away in this area?
4. MATHS EXTRA: Fill in the provided worksheet to explore your findings further.

Extension

1. Try repeating the Bug Hunt in a different type of area, like a woodland or a field, and comparing the invertebrates you find.

Invertebrate Spotting Sheet

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Names: **Date:** **Class:** **Location:**

What we saw (species)	Where we saw it (microhabitat)	How many we saw (abundance)	Type of invertebrate (classification)	What it looked like (description/drawing)
Ladybird	On a bush	4	Insect	 Red body with black spots

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What we saw (species)	Where we saw it (microhabitat)	How many we saw (abundance)	Type of invertebrate (classification)	What it looked like (description/drawing)

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Maths extra

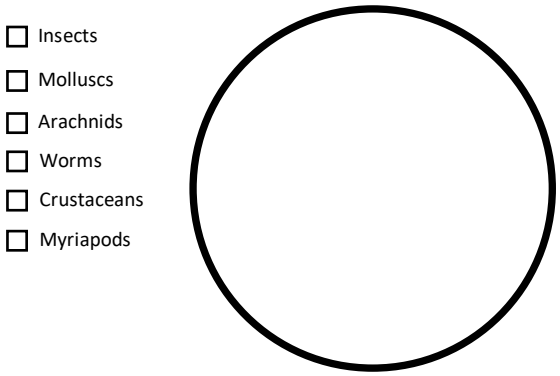
1. By counting the number of different species seen from each invertebrate group, complete column A in the below table:

	A	B
Invertebrate Group	**Number of species seen**	**Percentage of total number of species**
Insects 		
Molluscs 		
Arachnids 		
Worms 		
Crustaceans 		
Myriapods 		
TOTAL:		100

2. Use the following equation to work out what percentage of the total number of species seen belong to each group and fill in column B.

(Number of species seen from the group (A) ÷ Total number of species found) x 100

3. Use the percentages to fill in the pie chart showing the percentage of different invertebrate groups in your study area.



4. This pie chart shows the percentage of different invertebrate groups found across the world. Why might this be different from your pie chart?

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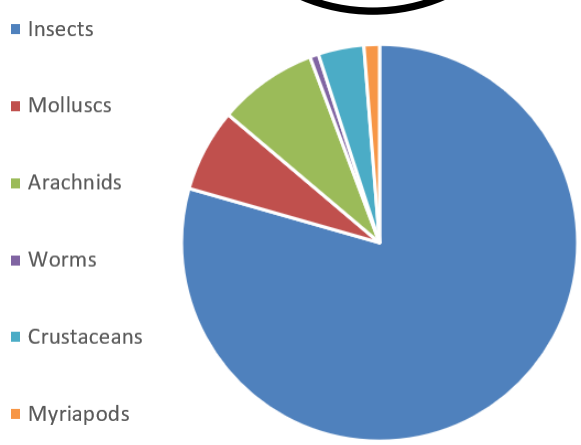

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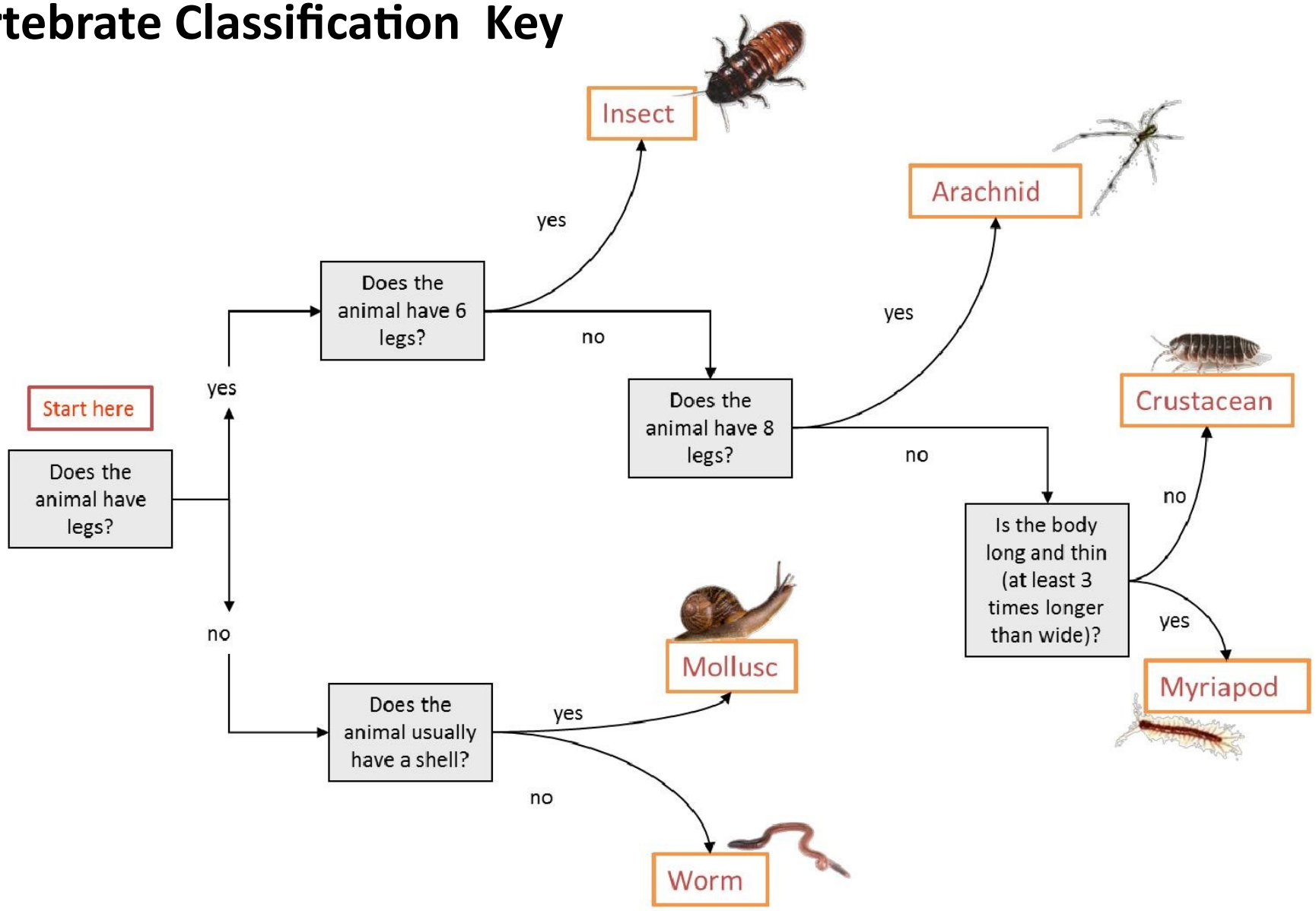
Invertebrate Classification Key



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Invertebrate summary cards

Mollusc

Snails

Soft, slimy body and hard coiled shell

Slugs

Soft, slimy body but does not have a hard coiled shell

Arachnid

Legs: 8

Spider

Body divided into two parts– head & abdomen

Harvestmen

Long thin legs

One body part — round or oval

Worms

Earthworm

Long thin body divided into segments

Crustacean

Woodlice

Body divided into many segments, 7 pairs of legs, oval body, can roll into a ball

Myriapods

Centipede

Long thin body divided into segments, at least 15 pairs of legs

Millipede

Long thin body with 2 pairs of leg on each segment

Insect larvae

Most insects reproduce by laying eggs. The young that hatch from these eggs are either larvae (looks different from adults) or nymphs (smaller versions of the adult)

Butterfly & Moth

Beetle larva

True fly larva (maggot)

Insects

Bees, wasps and ants

Legs: 6

Long antennae

See-through wings

Most have narrow waist

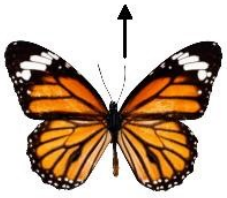
Bees are often hairy, whereas wasps and ants are not hairy.

Ants usually do not have wings

Butterflies and moths

Legs: 6

Long antennae



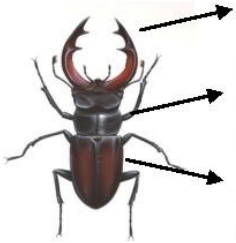
Two wings on each side, usually coloured

Butterfly— usually flies during the day, rest with their wings closed

Moth—usually fly at night, feathery antennae, rest with wings open

Beetles

Legs: 6



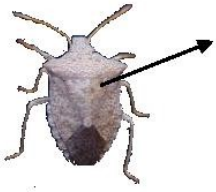
Pincer– shaped

Wing cases meet in a straight line to make a T shape

Hard forewing cases to protect wings

True bugs

Legs: 6

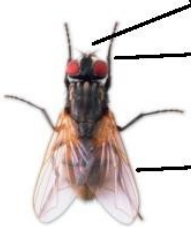


Wings usually meet in an X– or Y– shape

Not true for aphids

True flies

Legs: 6



Short antennae

Large eyes

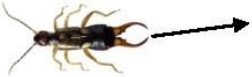
One pair of see-through wings

Cricket, grasshoppers, earwigs

Legs: 6

Crickets have long antennae

Grasshoppers have short antennae



Earwigs have a pair of pincer-shaped clasps