

Activity—We're going on a bug hunt!

Teaching Instructions:

The Bug Hunt

1. Select an area to visit—maybe the school grounds or an area in a local park.
2. Put students into pairs or small groups and equip them with:
 - a. Invertebrate Spotting Sheet
 - b. Invertebrate Classification Key
 - c. Invertebrate Summary Cards
 - d. Plastic spoons and clear bug pots or clear tupperware (optional)
3. Instruct students to move slowly through the area, searching for invertebrates. The best places to check would be under stones and logs, in the cracks of trees and at the base of long grass!
4. If they need to get a closer look at an animal to work out what it is, they can use the spoons to gently pick it up and place it into the bug pot or tupperware so that they can use the Classification Key to identify it.

Make sure they put the animal back where they found it!
5. **EXTRA TIP** — lay a white sheet or pillowcase under a bush or tree and shake the branches to see what falls out!
6. Groups should record each species they find on their Invertebrate Spotting Sheet, including how many they found and what microhabitat it was in.

The Discussion







1. Run through which animals were found and where they were found.
2. Discuss why different animals were found in different *microhabitats*—butterflies eat the nectar of flowers, woodlice like damp, dark places etc.
3. **MATHS EXTRA:** Get pupils to fill in the provided worksheet exploring their findings.

Extension

1. Consider repeating the Bug Hunt on in a different type or area and comparing the invertebrates found—e.g. woodland vs. field.

We're going on a bug hunt! - Maths

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

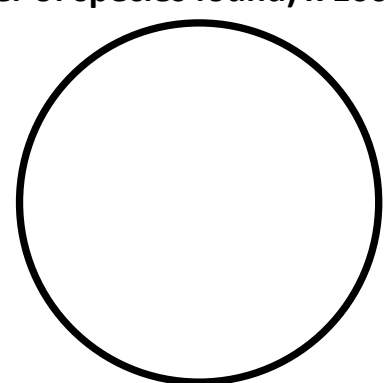
	A	B
Invertebrate Group	Number of species seen	Percentage of total number of species
Insects 		
Molluscs 		
Arachnids 		
Worms 		
Crustaceans 		
Myriapods 		
TOTAL:		100

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

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

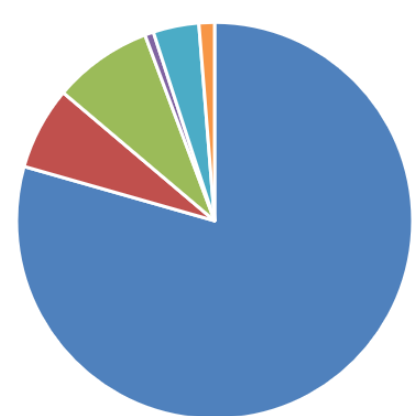
3. Use the percentages to fill in the pie chart showing the percentage of different invertebrate groups in your study area.

- Insects
- Molluscs
- Arachnids
- Worms
- Crustaceans
- Myriapods



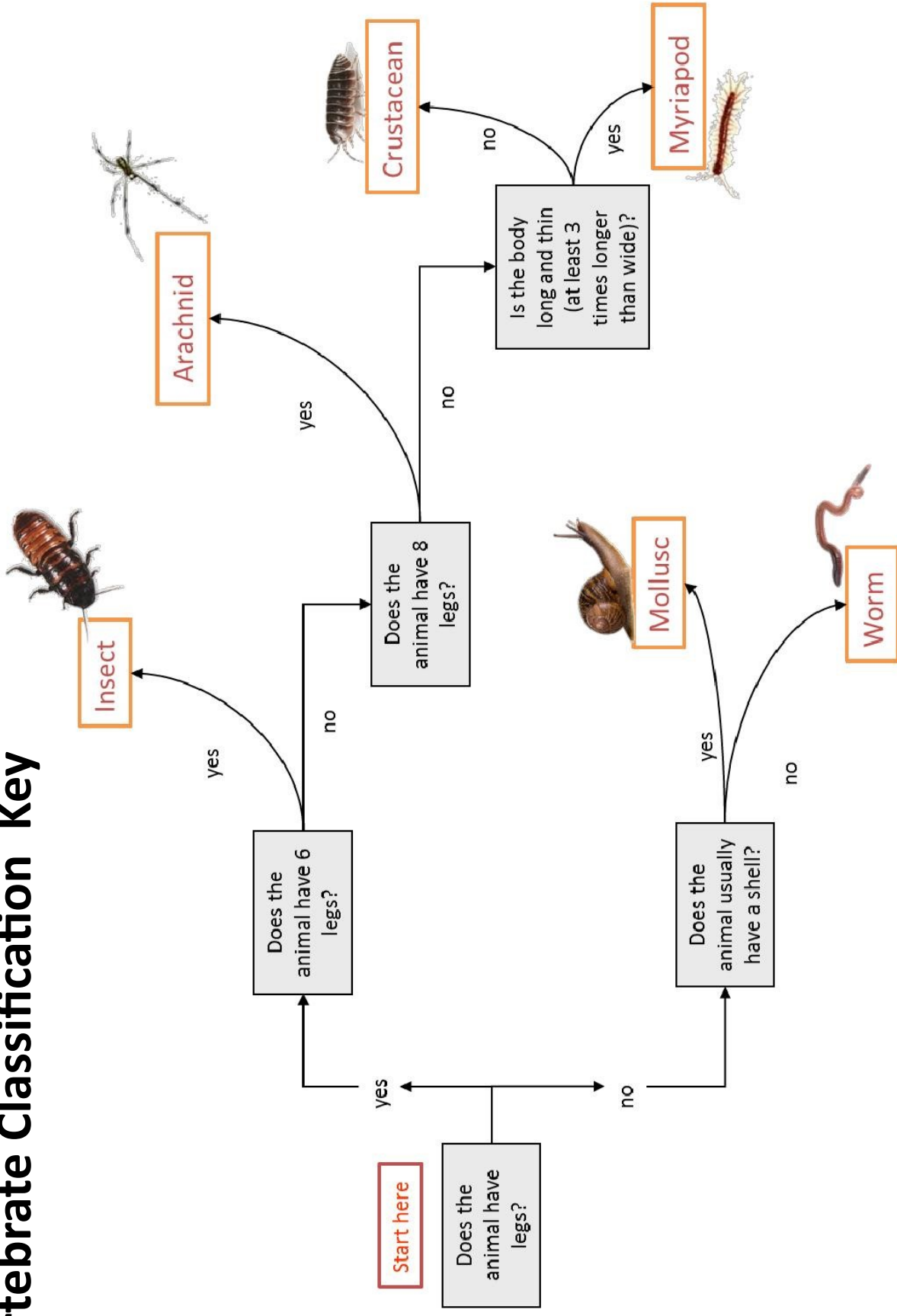
4. This pie chart shows the percentage of different invertebrate groups found across the world. Why might this be different from your pie chart?

- Insects
- Molluscs
- Arachnids
- Worms
- Crustaceans
- Myriapods



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Invertebrate Classification Key



Invertebrate summary cards

Mollusc

Snails



Soft, slimy body and hard coiled shell

Slugs

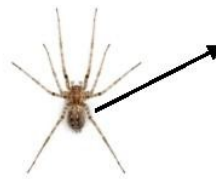


Soft, slimy body but does not have a hard coiled shell

Arachnid

Legs:

8



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



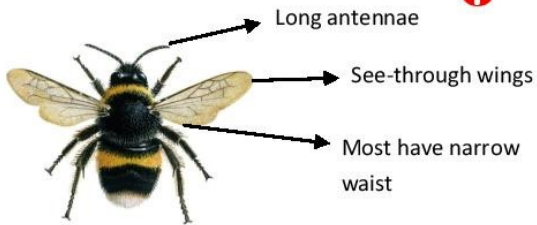
True fly larva (maggot)

Insects

Bees, wasps and ants

Legs:

6



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

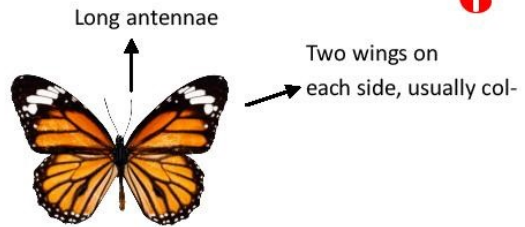


Ants usually do not have wings

Butterflies and moths

Legs:

6



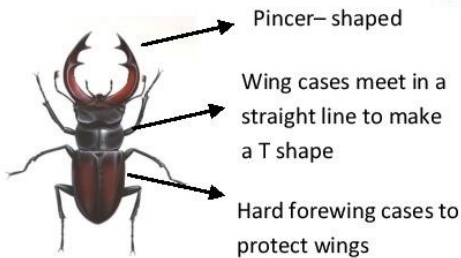
Butterfly— usually flies during the day, rest with their wings closed

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

Beetles

Legs:

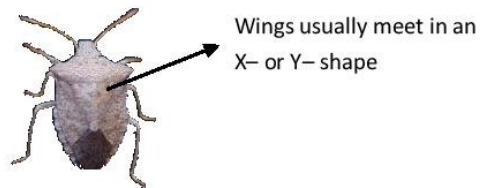
6



True bugs

Legs:

6



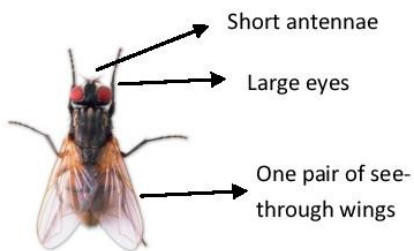
Not true for aphids



True flies

Legs:

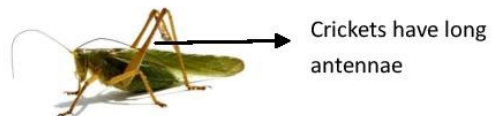
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Cricket, grasshoppers, earwigs

Legs:

6



Grasshoppers have short antennae



Earwigs have a pair of pincer-shaped claspers