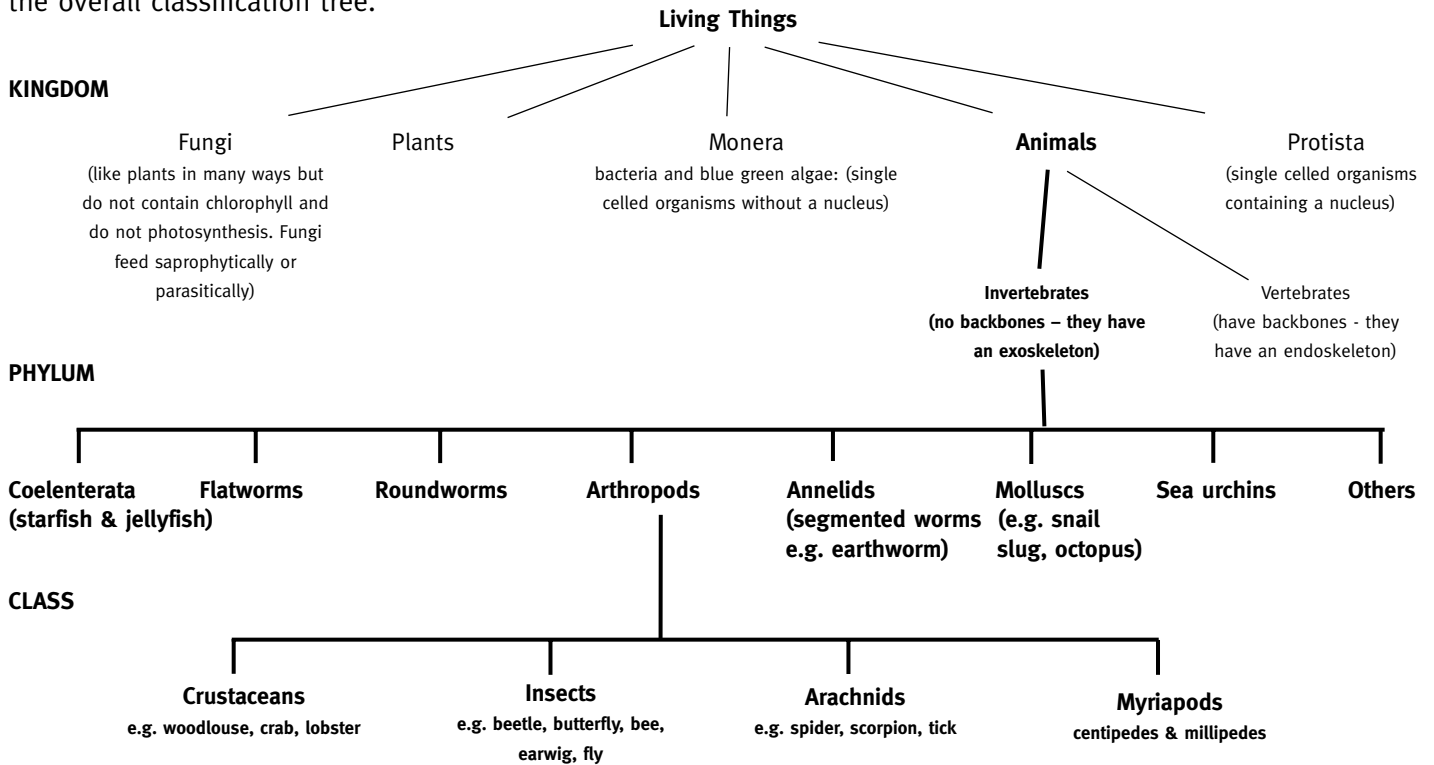




There are millions of different kinds of plants and animals in the world. Each different kind of plant and animal is called a **species**. We can group species together according to certain characteristics. The diagram below shows how the invertebrates fit into the overall classification tree.



### Classification terms

The largest groups are known as **phyla**. The organisms in each phylum have a body structure which is radically different from organisms in any other phylum. Organisms in each phylum can be subdivided into **classes**. Organisms in the same class share several common features.

A class can be further subdivided into **orders**, orders into **families**, families into **genera** and finally genera into **species**.

A general rule of thumb is that organisms of the same species can interbreed successfully whereas organisms from the same genus but of different species, like the Brown Bear and the Polar Bear cannot interbreed.

### Naming a species

Every organism is given a scientific name according to an internationally agreed system. The name is always in Latin and is either underlined or written in italics. It is in two parts. The first name indicates the genus and starts with a capital letter, the second is the species and starts with a lower case letter. An example of classification is given below.

The large white butterfly -  
scientific name: **Pieris brassicae**

**Kingdom:** Animal

**Phylum:** Arthropoda

**Class:** Insecta

**Order:** Lepidoptera

**Family:** Pieridae

**Genus:** **Pieris**

**Species:** **brassicae**



- **Using the Classification Cards (suitable for 5 - 12 year olds)**

There are six **Classification Cards** in this pack which can be used as a source of information and/or as the basis for different types of displays. You may want to cover these cards with sticky back plastic to extend their shelf life.

- **Using the Bug Dials (suitable for 7 - 12 year olds)**

There are two Bug Dial templates. The **More about me** Bug Dial can be used to find out more about several common invertebrates. The **What group?** Bug Dial can be used as an aid to classification of specific invertebrates and to explore the characteristics common to each phylum or class.

Both Bug Dials are assembled in the same way. The templates should be photocopied **preferably to A3 size** and given to the children who then cut out the dials using the dotted lines as a guide. In each case dial B fits on top of dial A and needs to be fixed in place with a paper fastener. Both dials may be backed onto card and could be fixed together - the **More about me** dial on one side and the **What group?** dial on the other.

- **The Alive or has never been alive? activity (suitable for 5 - 7 year olds)**

You may like to introduce younger children to classification using the simple grouping exercise **Alive or has never been alive?** with the help of Discovery sheets 3a and 3b. These sheets can be used in a variety of ways:

- Using the **Alive or has never been alive?** Discovery sheet 3c as a basis for their work, each child can colour, cut out and stick the pictures into either the 'Alive' or 'Has never been alive' boxes on Discovery sheet 3a. As an extension to this activity, the children might draw in some of their own choices.
- For a more guided approach, Discovery sheet 3b can be used as the basis for a cut, paste and record activity.
- The diagrams on Discovery sheet 3c can be cut out and used like playing cards during a group discussion.

Whichever approach is used, you should ask the children to consider the following criteria when making their choices:

**Does it move?**

**Can it be a parent?**

**Does it breathe?**

**Can it grow?**

**Does it need food?**

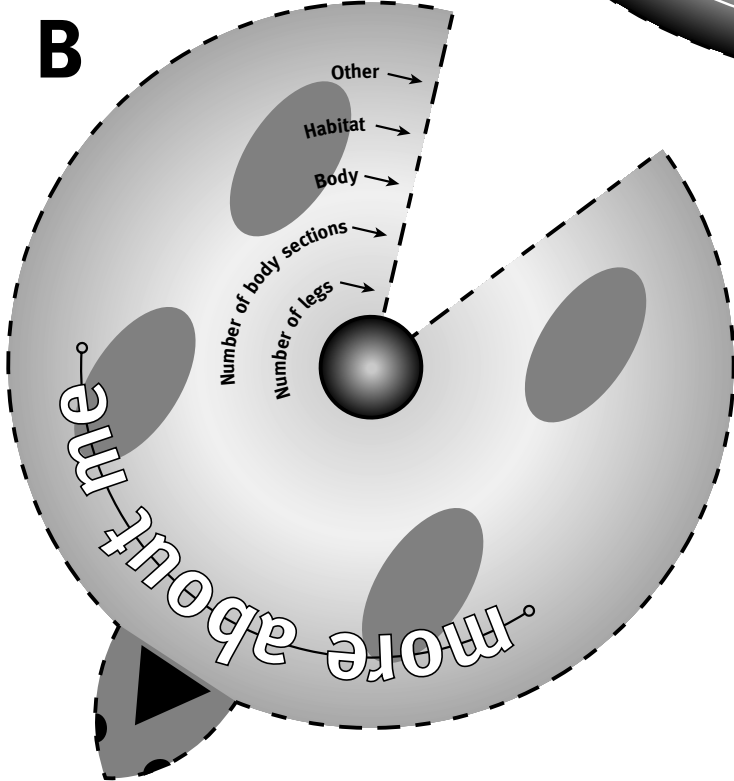
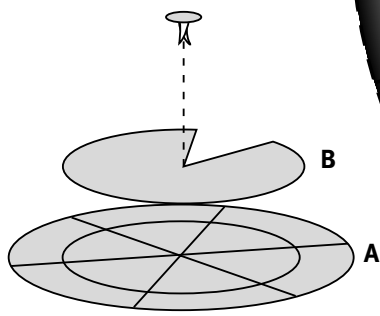
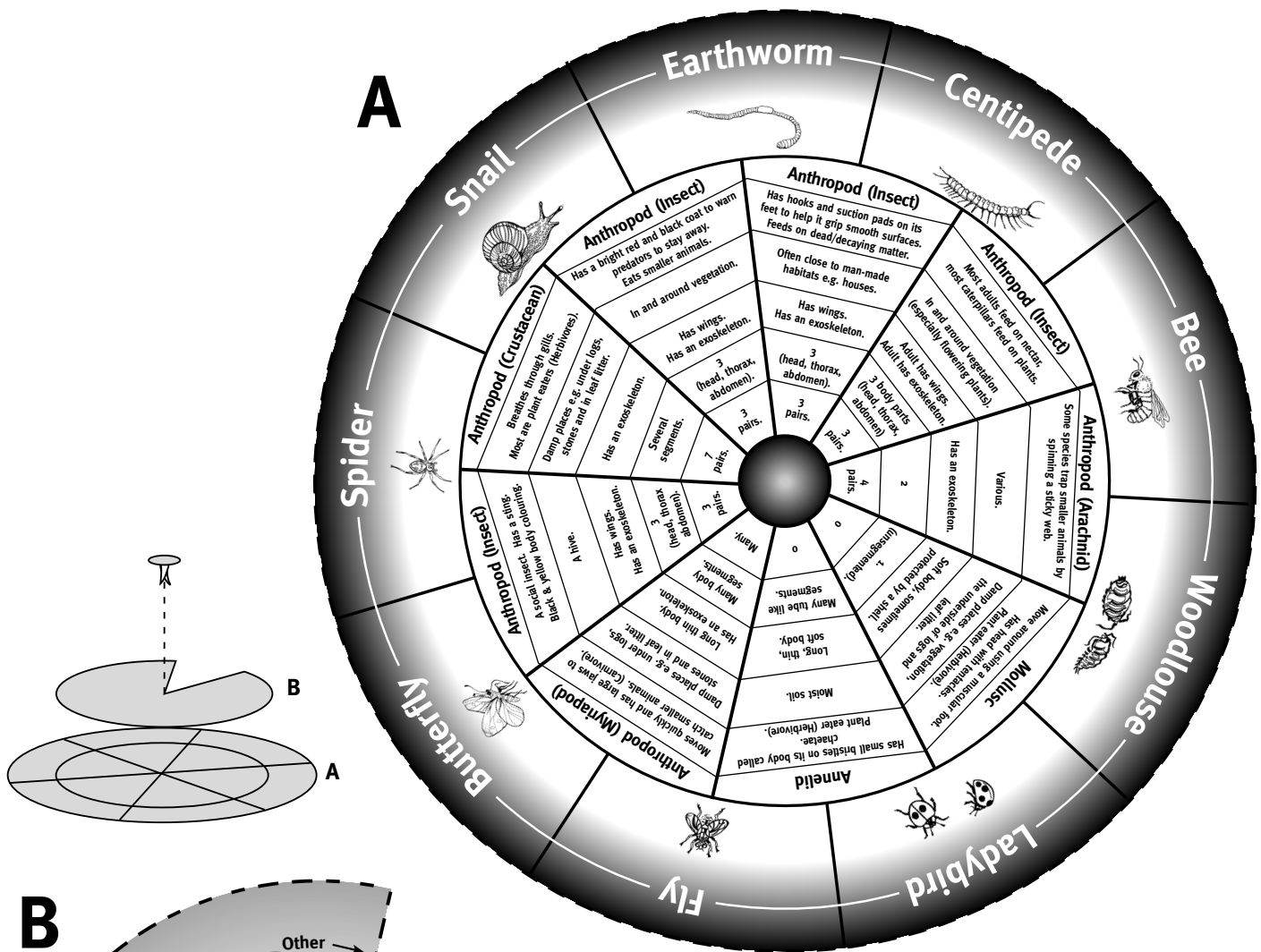
**Can it be eaten by another living thing?**

**Can it feel things?**

- **Extension (suitable for 5 - 7 year olds)**

As an extension activity, children might be encouraged to collect their own examples of things which are 'alive' or 'have never been alive', during a nature walk or scavenger hunt and use their findings to create a display.

# More about me, bug dial

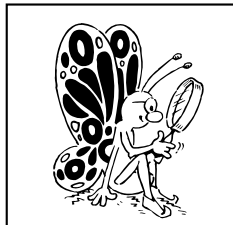


### What to do

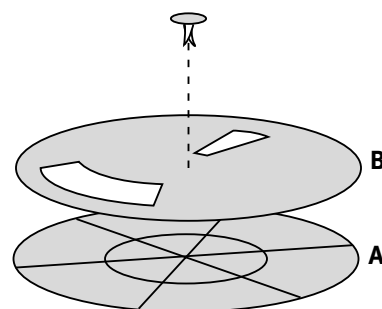
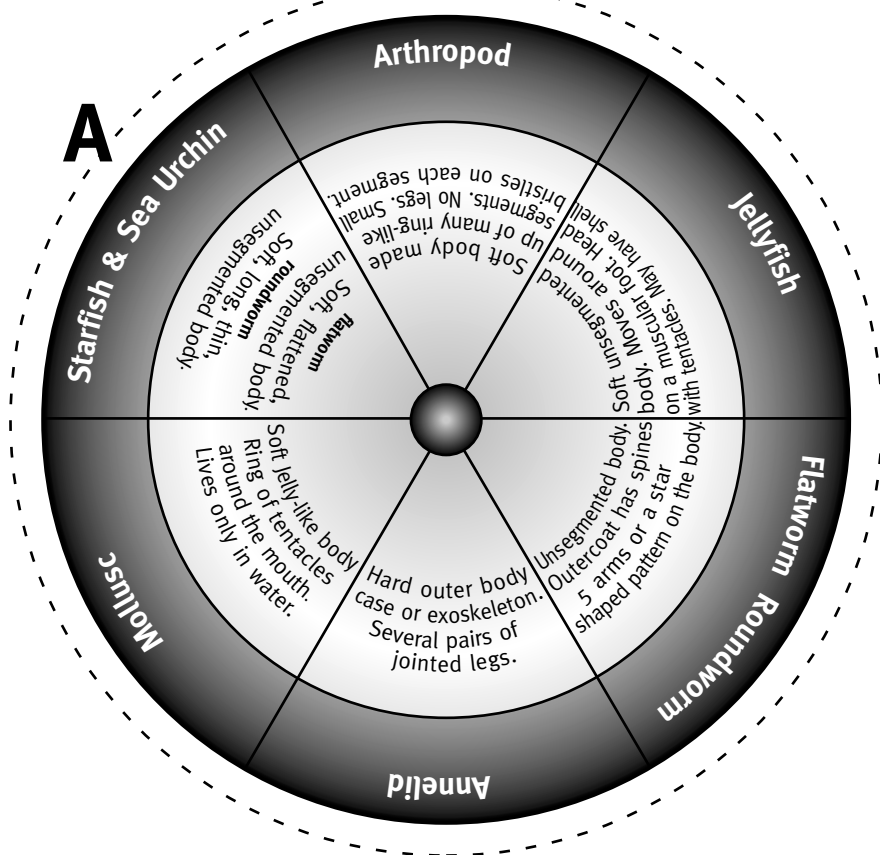
- Carefully cut around each dotted line
- Put circle B on top of circle A
- Fix it into place with a paper fastener

### To use this bug dial

Line up the arrow on the ladybird's head with the picture of minibeast that you want to find out more about and read off information in the triangle.



# What group? bug dial

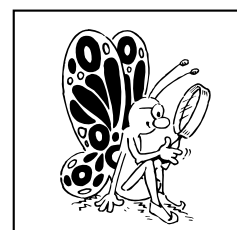
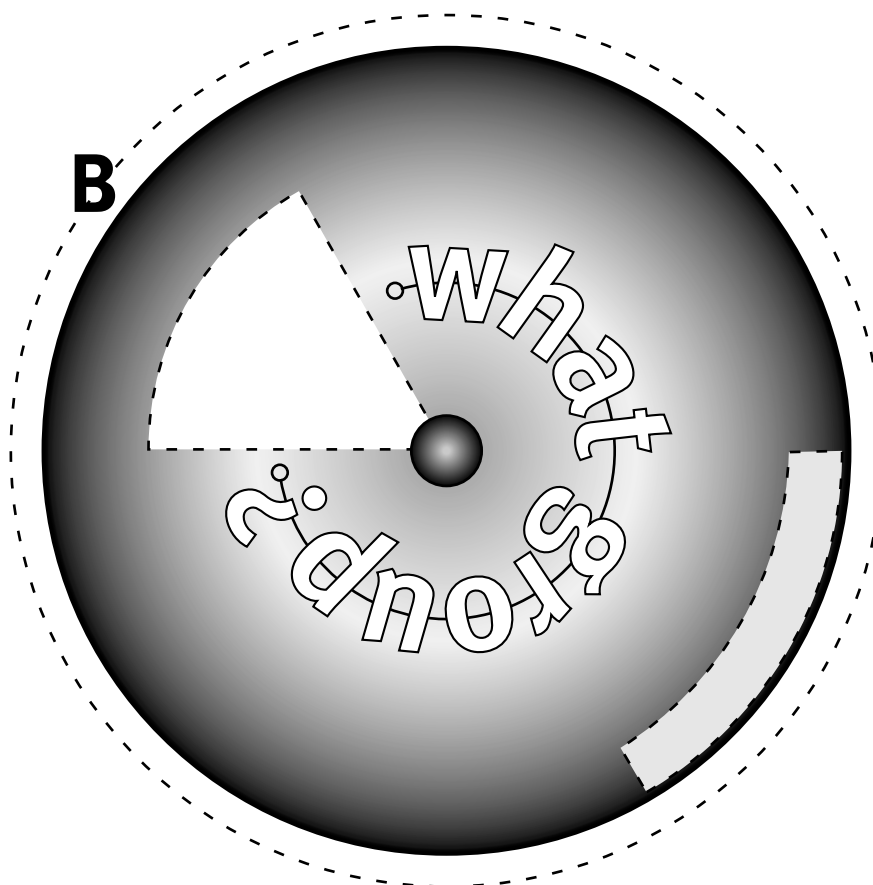


## What to do

Carefully cut around each dotted line. Put circle B on top of circle A. Fix it into place with a paper fastener.

## To use this bug dial

- Look at the minibeast you are studying carefully and write down its main features. For instance:  
How many legs does it have?  
Does it have a hard or soft body?  
Has it got wings?
- When you have made a list, turn the dial until you find the triangle of information which is **most like the list you have made**. Now look at the box opposite which will tell you which group your minibeast belongs to.



# Alive or has never been alive?

Name: \_\_\_\_\_

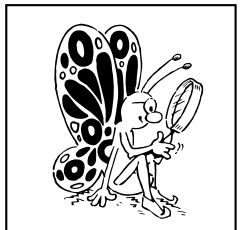
Decide which pictures on sheet 3c show things that are **alive** and which show things that **have never been alive**. Cut out each picture and stick it into the correct box on this page.

**Alive**

I think these things are **alive** because:

**Has never been alive**

I think these things **have never been alive** because:



# Alive or has never been alive?

Name: \_\_\_\_\_

Decide which pictures on sheet 3c show things that are **alive** and which show things that **have never been alive**. Cut out each picture and stick it into the correct box on this page.

## Alive

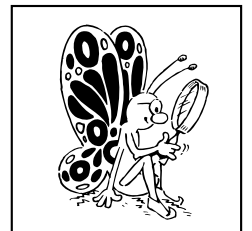
--	--	--	--	--	--

I think these things are **alive** because:

## Has never been alive

--	--	--	--	--	--

I think these things **have never been alive** because:



# Alive or has never been alive?

