

## WHAT DOES DICHOTOMOUS MEAN?

### Discover...

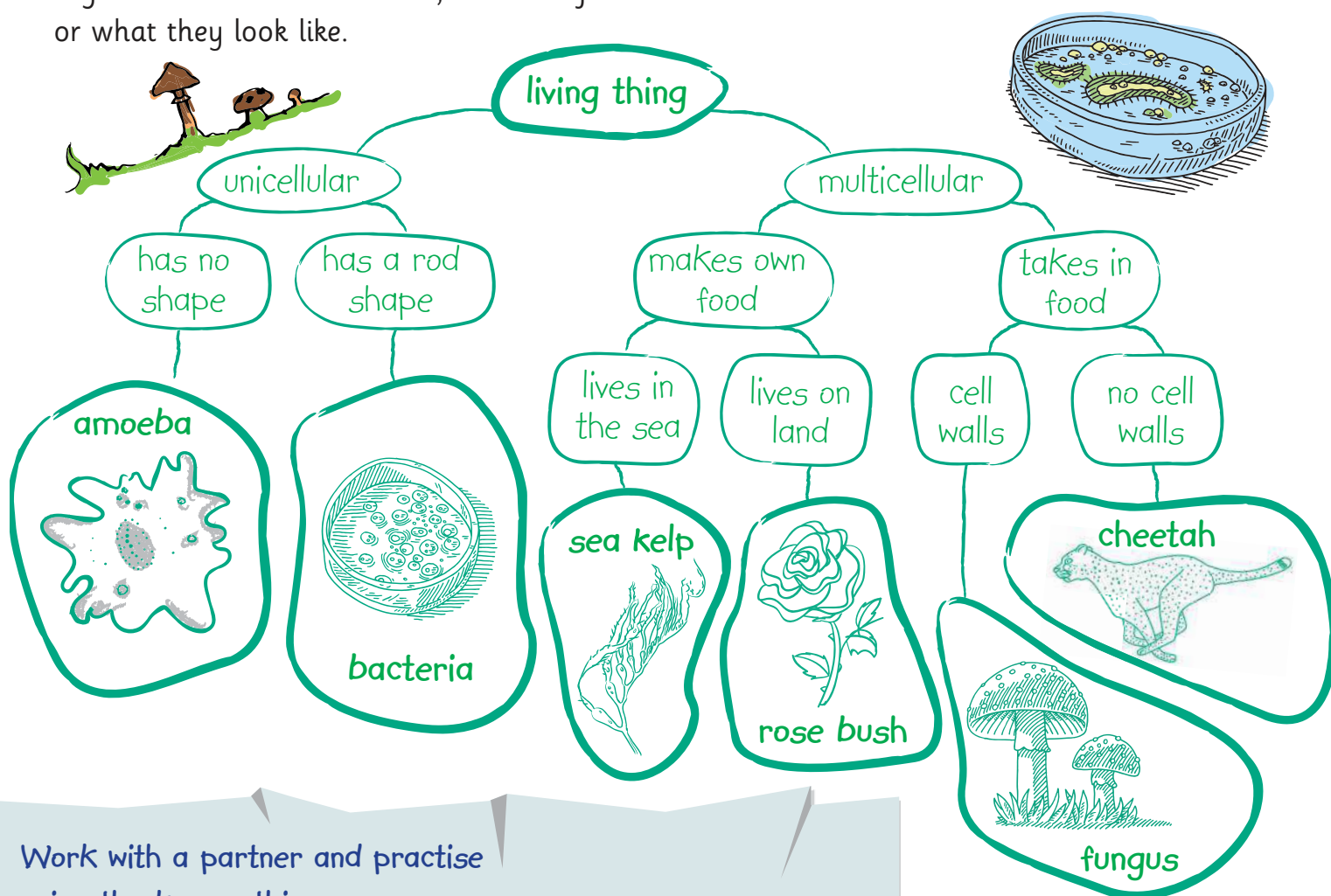
what scientists use  
dichotomous keys for.

Dichotomous means *divided into two*. Scientists use **dichotomous keys** to identify organisms they find in the wild. All the characteristics defined in a dichotomous key have two choices. For example, living or non-living.

You can build a dichotomous key to identify organisms based on nutrition, number of cells or what they look like.

### Look back

How do we know if something is living or non-living?



Work with a partner and practise  
using the key on this page.

It's multicellular and  
makes its own food.

It must be sea kelp.

It lives in the sea.

Now make your own  
dichotomous key using  
different organisms!

## CAN YOU CLASSIFY THESE WEIRD AND WONDERFUL ORGANISMS?

Like all rules, exceptions exist. Some organisms are tricky to classify!

### Discover...

which plant gets its food by eating other living things.



The platypus lays eggs, but is not a reptile, fish or bird.

How is the platypus classified?



The Venus flytrap is no ordinary plant – it gets its energy by eating insects! However, it can still make its own food between meals like other plants.

Find one of these weird organisms hidden in the unit.



This looks like a tree, but it is actually a marine animal called *Spirobranchus giganteus*, known as the Christmas tree worm. The tentacles are actually specialised mouths!



This lichen gives taxonomists a double headache. It is both a fungus and an alga living together in the same organism.



This may look like a plant, but it is actually a leaf-tailed gecko. It can mimic leaves to avoid being eaten.

What is a taxonomist?



### STAGE 3

- Find out three interesting facts about your organism.
- Swap information with a partner. Which organism is the strangest?
- Make a poster of your organism. Include your drawing and information from Stages 1 and 2.
- Add photos and write a descriptive paragraph about your interesting facts.

Check this out: ...

Can you believe that ...?

Believe it or not, my organism has got / does / is / can ...

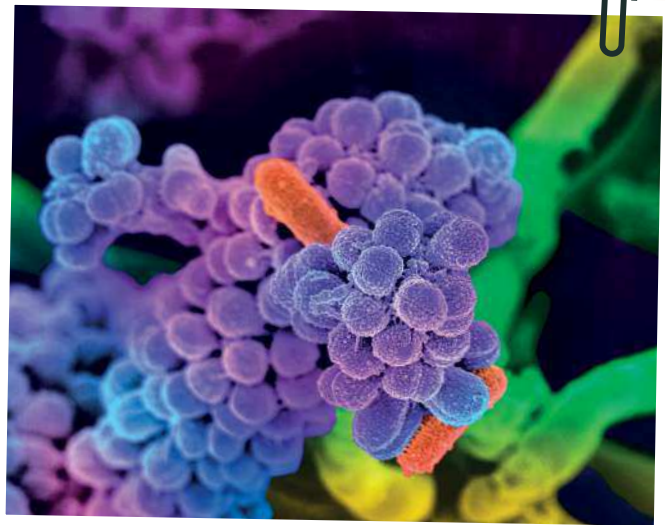


## Language Review

**1** Match the prefixes to the endings. Complete the sentences in your notebook.

**Prefixes:** uni- multi- in- anti- -cellular -biotics -vertebrates -cellular

- a** An organism that contains several different cells that work together is a ..... organism.
- b** Bacteria have only got one cell and are an example of a ..... organism.
- c** There are two main groups of animals: vertebrates and ..... .
- d** Sally is feeling better because the ..... she is taking are fighting her bacterial infection.



**2** Write the correct question word. Match each question to the correct answer.

- a** ..... does giant kelp grow?
- b** ..... have plant cells got a cell wall?
- c** ..... discovered penicillin?
- d** ..... kingdom does the platypus belong to?
- e** ..... do plants make their own food?
- f** ..... is the plural of *fungus*?

Fungi.  
 Through photosynthesis.  
 For structural support.  
 Alexander Fleming.  
 In the sea.  
 The Animal kingdom.

**3** Complete the sentences using the modal verbs **must** or **might**.

- a** This organism is unicellular, but doesn't make its own food; it ..... be a bacterium.
- b** This organism is unicellular and makes its own food; it ..... be a protist.
- c** This organism is multicellular with cell walls; it ..... be a fungus.
- d** This organism is multicellular and makes its own food; it ..... be a plant.
- e** This organism is a multicellular vertebrate; it ..... be an animal.



## Content Review

**1** For these questions, choose the correct answer for each gap.

- a** .... are the building blocks of life.

Kingdoms

Organs

Cells

- b** Tissues work together to form .....

organisms

systems

organs

- c** .... look like plants but they can't make their own food.

Protists

Bacteria

Fungi

- d** The .... controls the cell and contains all the genetic information.

nucleus

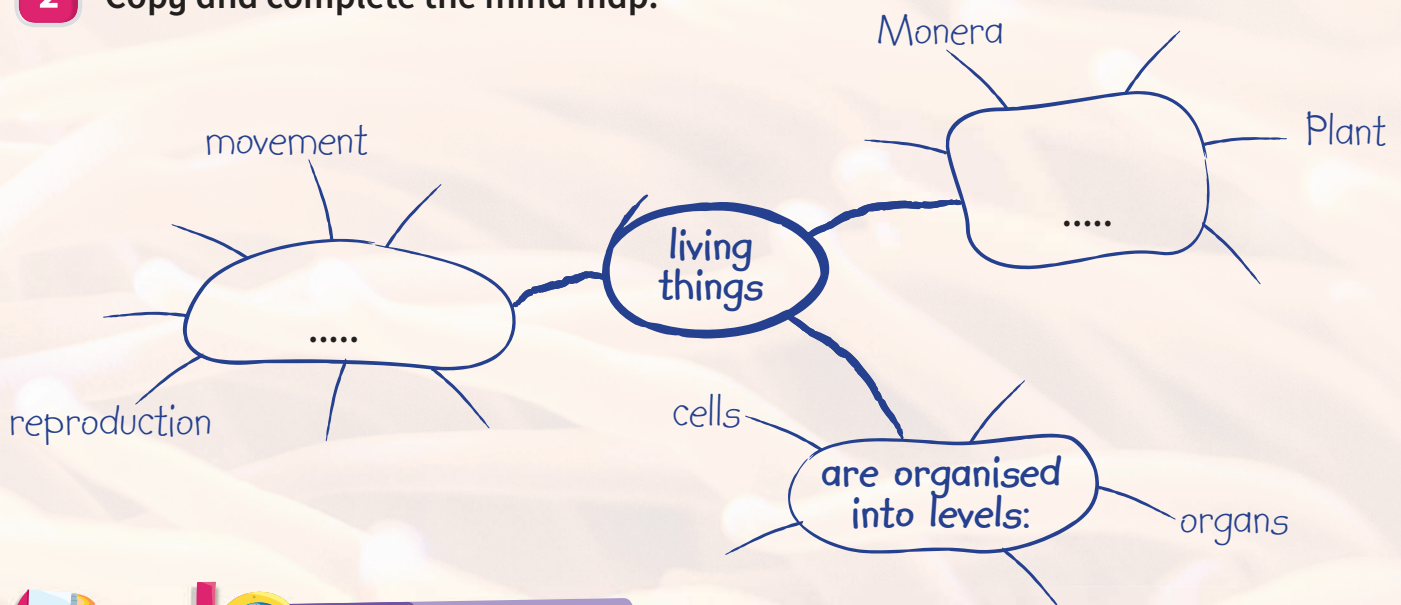
cytoplasm

chloroplast

**Assessment link**

For more Unit 1 activities go to page 78.

**2** Copy and complete the mind map.



**Explore**

FINALE

- Get into expert groups for each kingdom. Discuss what your organisms have in common. Are they all multicellular? Do they make their own food?
- Now form new groups of five, each person representing a different kingdom. Talk about your organism and present your poster.
- Your teacher will then collect the organism posters and organise them into a book: *The Book of Life!*

I have chosen ... because ...

This is an organism that can / does / is ...



2

ECOSYSTEMS



Look and discuss...

Can you name these ecosystems?

2

Ecosystems are made up of living and non-living things. An ecosystem can be as big as the ocean or as small as a puddle!

1



3



4



I think this ecosystem is a ...

I'm not sure. It looks more like a ...



1 grassland; 2 desert; 3 freshwater; 4 forest; 5 marine; 6 urban; 7 tundra



5



How are the ecosystems similar?  
How are they different?

6



**Song**  
Ecosystems on Earth

7



**DOCUMENTARY**  
Amazing adaptations

**Explore**

- Explore an ecosystem from a different continent and do a presentation. You will:
- discover the characteristics of an ecosystem.
  - learn about different types of ecosystems.
  - find out how animals adapt to their surroundings.