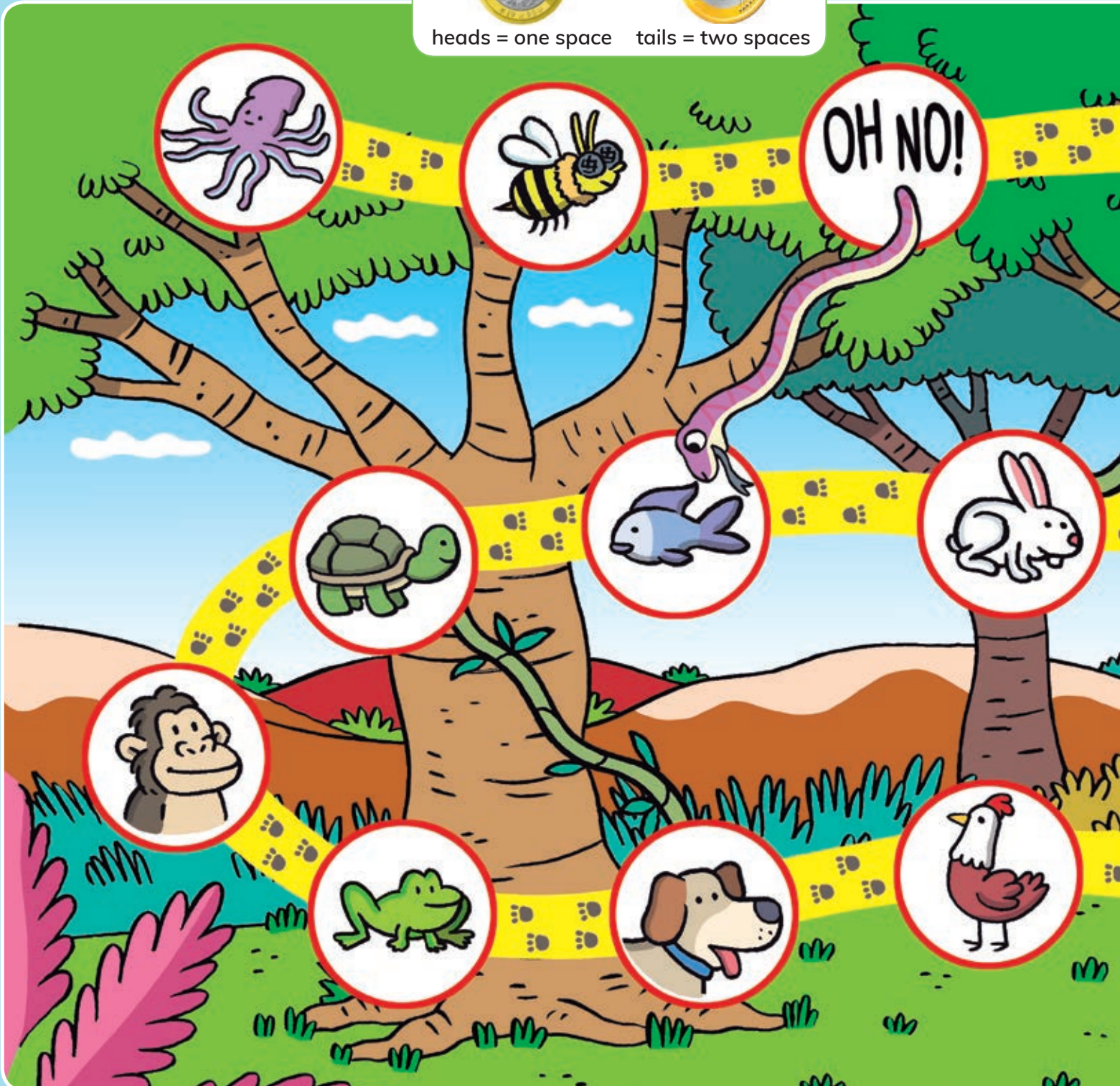


1 Watch. What is your favourite animal?

2 Play the game. Use a coin.



heads = one space tails = two spaces



Questions (= one point each)

- What is it? **It's a ...**
- What does it eat? **It eats ...**
- Does it lay eggs? **Yes, it does. / No, it doesn't.**



Let's learn about ...

- different animals
- how animals adapt
- what animals do

3 True or false?

- Living things grow, reproduce and die.
- Cats are reptiles.
- Fish have got scales.
- Spiders are vertebrates.
- Birds lay eggs.

4 Look. Is this a vertebrate or an invertebrate?



What are animals?

Animals are living things. Living things can be divided into **kingdoms**.



Most **Protocists** have got only one **cell**. Many protocists are very small. Most of them, such as **algae**, live in water.



Some **Fungi**, such as **yeast**, have got only one cell. Other fungi have got more than one cell. Fungi don't make their own food. We eat some types of fungi, such as **mushrooms**.



Plants have got more than one cell. They get energy from the **Sun**. Plants make their own food. They can't move from one place to another.



Animals have got more than one cell. They need **food, water** and **oxygen** to live. Animals can't make their own food. They can move from one place to another.



Prokaryotes, such as **bacteria**, are very simple living things. They have got only one cell. They are very, very small. You can only see them with a **microscope**.

1 Copy and complete the table with the living things in your notebook.

tree

mushroom

dog

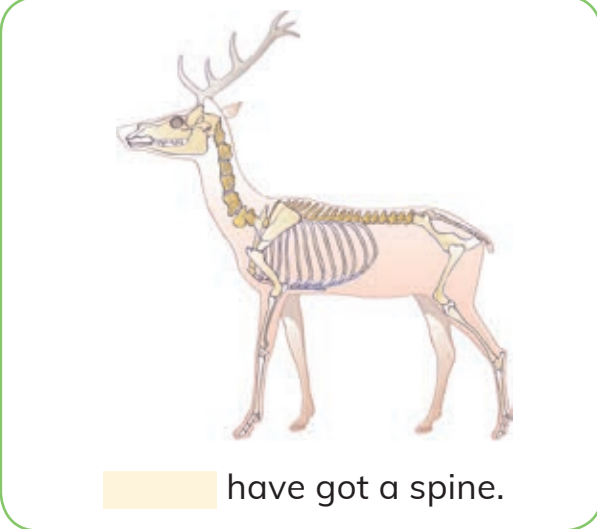
algae

bacteria


Prokaryotes	Protocists	Fungi	Plants	Animals

2 Watch. Copy and complete with **Vertebrates** or **Invertebrates**.

There are two main groups in the Animal Kingdom:

a. 

have got a spine.

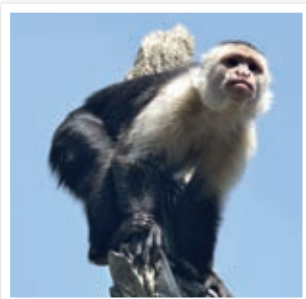
b. 

haven't got a spine.

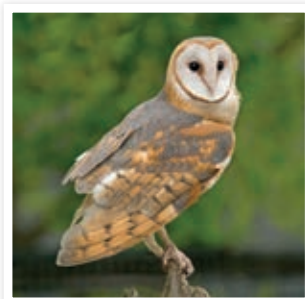
3 Listen. Classify. Vertebrate or invertebrate?



jellyfish



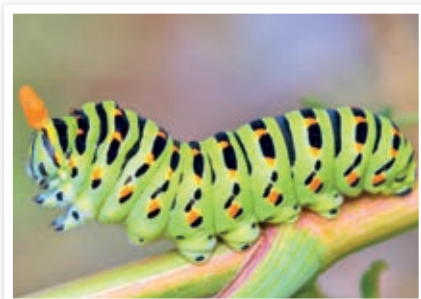
monkey



owl



fish



caterpillar



snail



human

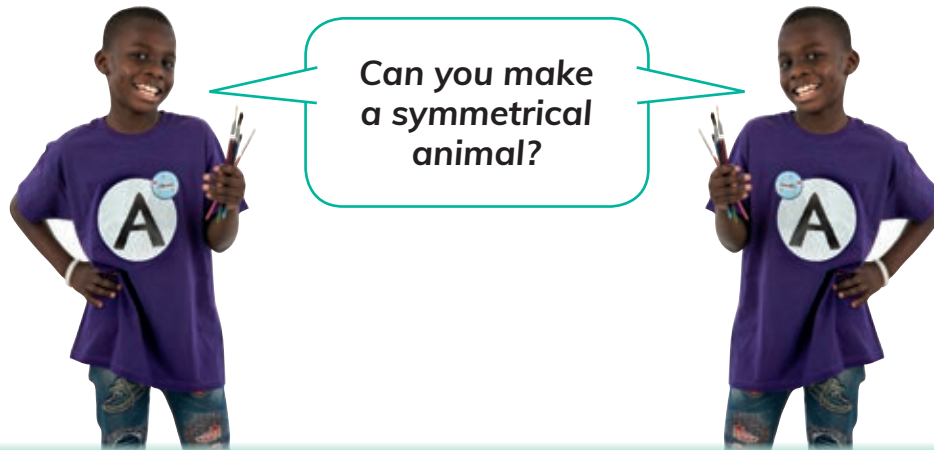
4 Listen. Stand up if it's a vertebrate. Sit down if it's an invertebrate.  002



At home

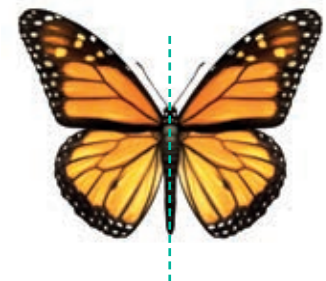
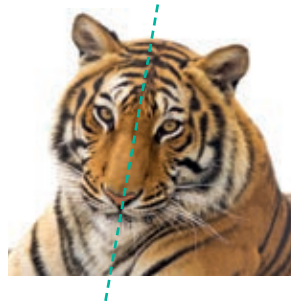
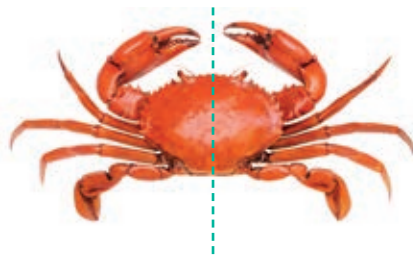
Find two vertebrates and two invertebrates that live near your home.

Make a symmetrical butterfly



Before you start

1 Look at the two sides of these animals. Are they the same?



Almost all animals are **symmetrical**. This means their **left** and **right** sides are the same.

You need ...

- a paintbrush
- card
- paints
- pencil
- scissors



Planning

- 1 Fold the card in half. Draw an outline of half a butterfly.



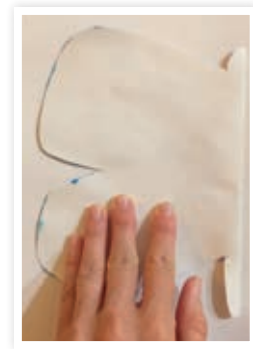
- 2 Cut out your butterfly.



- 3 Use the paintbrush. Put some paint on one side of your butterfly.



- 4 Fold and press.



- 5 Open carefully. You have got a beautiful butterfly!



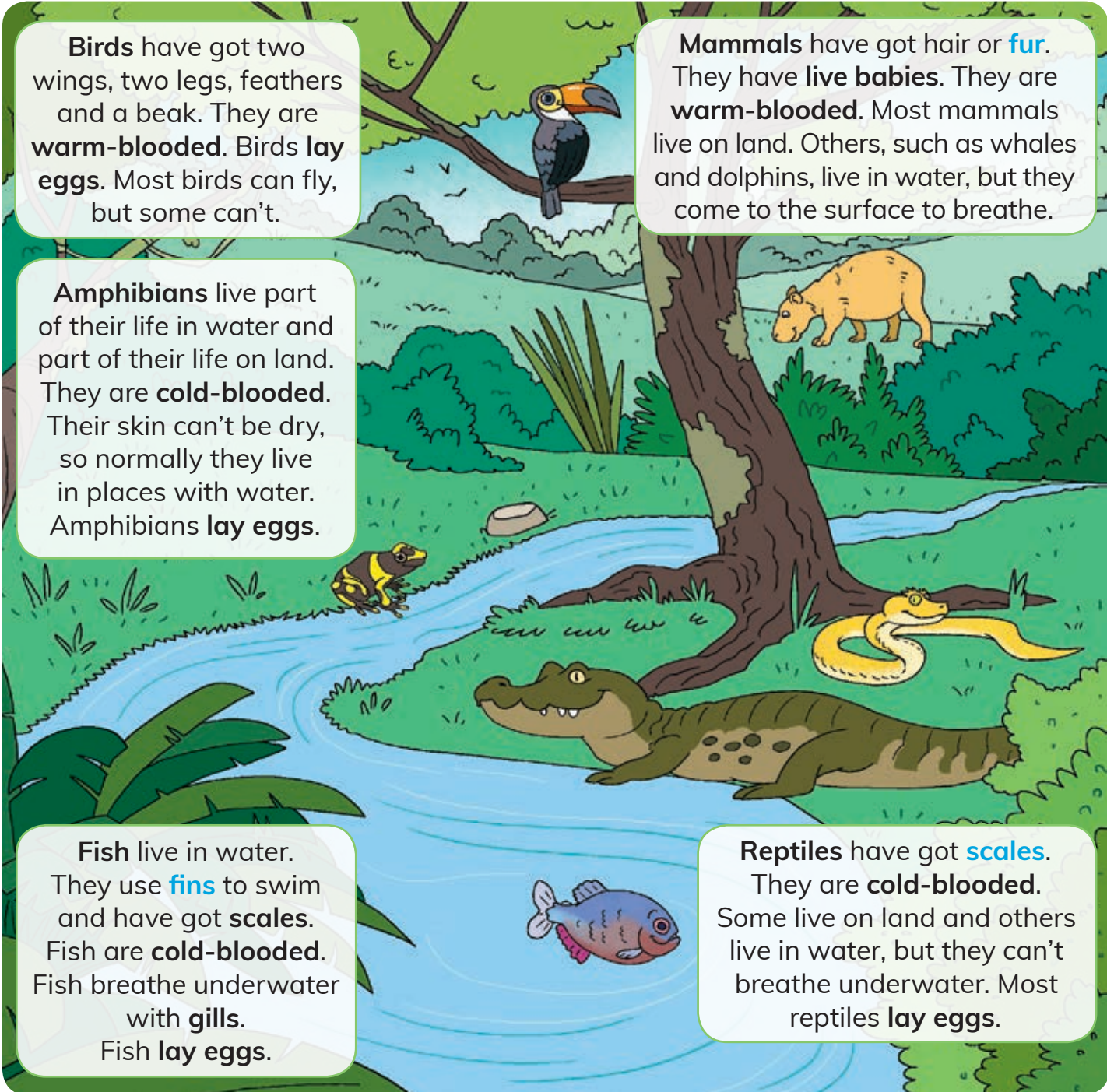
- 6 Display your butterflies around the class.

- 7  Look at your classmates' butterflies. Are they symmetrical?

What types of vertebrates are there?

The main types of vertebrates are **mammals**, **birds**, **reptiles**, **amphibians** and **fish**.

1 Read. Can you name one vertebrate animal?



Birds have got two wings, two legs, feathers and a beak. They are **warm-blooded**. Birds **lay eggs**. Most birds can fly, but some can't.

Mammals have got hair or **fur**. They have **live babies**. They are **warm-blooded**. Most mammals live on land. Others, such as whales and dolphins, live in water, but they come to the surface to breathe.

Amphibians live part of their life in water and part of their life on land. They are **cold-blooded**. Their skin can't be dry, so normally they live in places with water. Amphibians **lay eggs**.

Fish live in water. They use **fins** to swim and have got **scales**. Fish are **cold-blooded**. Fish breathe underwater with **gills**. Fish **lay eggs**.

Reptiles have got **scales**. They are **cold-blooded**. Some live on land and others live in water, but they can't breathe underwater. Most reptiles **lay eggs**.

2 Look at the picture. In your notebook, write examples of different types of animals.

Language learning lab

Learn to describe animals with a classmate.

It's got ... / It hasn't got ...

a tail	wings	scales
gills	feathers	fur

It's a bird / a mammal / an amphibian / a fish / a reptile.

- Choose an animal. Write three sentences
- Play the guessing game.

- 3  Investigate using the Internet and answer the question.



Whales live in the water, but they aren't fish. Why not?



- 4 Listen and say the chant.  003

The Vertebrate Chant

A is for amphibians. They can't be .

B is for birds. They use to fly.

F is for fish. They swim with their .

R is for reptiles with dry, scaly .

M is for mammals. They're covered in .

Which of the vertebrates do you prefer?



At home

Teach the Vertebrate chant at home.

What types of invertebrates are there?

97% of all animals are invertebrates. They haven't got a **spine**.

There are many different types of invertebrates. Let's look at four groups:

Arthropods are the biggest group of invertebrates. They live on land or in water. They have got **antennae** and legs with joints. They have got an **exoskeleton**. It protects their body.



Worms have got long, soft bodies. They haven't got legs. They live on land and in water. Some worms have got round bodies and some worms have got flat bodies.



Echinoderms live in the ocean. They have got **spines**. Some use their very small feet to move on the ocean floor.

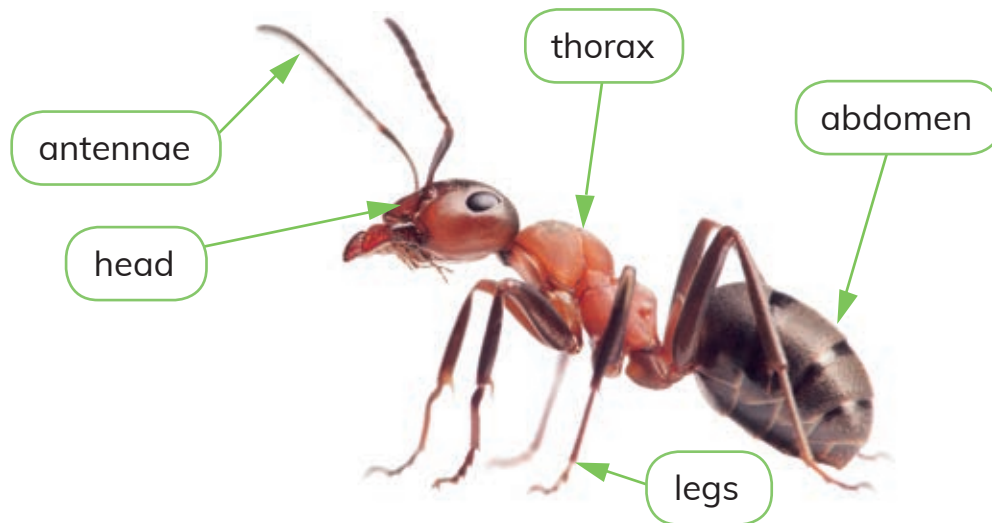


Molluscs have got soft bodies. Many molluscs have got a **shell** to protect their bodies. Many live in the sea. Some, such as snails, live on land.



1 Listen and point.  004

An ant is an **insect**. Insects are arthropods with three main body sections: **head**, **thorax** and **abdomen**.



2  What type of invertebrate is it? Tell a classmate.

- a. It hasn't got legs. It doesn't live in water.
- b. It's got wings and an exoskeleton. It's got six legs.
- c. It lives in the ocean. It's got a shell. It's got a soft body. It hasn't got feet.

3  Draw these animals in your notebook. Write the descriptions.



At home

Look for invertebrates at the supermarket.

How do animals adapt?

There are animals all over the world.
They **adapt** to their **environment**.

Camels live in the desert. They need to adapt to a **hot, dry** environment.

Polar bears live in the Arctic. They need to adapt to a cold environment with **ice** and **snow**.

They have got wide feet for walking on the **sand**.



They can drink 150 litres of water.

They have got thick **fur**.



They have got a lot of **fat**.

They have got long **claws**.

Some animals use **camouflage** for protection.



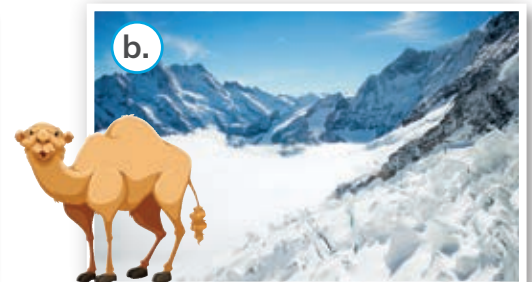
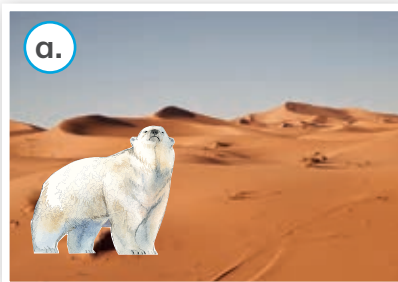
Arctic foxes change their colour. They are white in the winter and brown in the summer.

Stick insects normally live in trees. They look like **sticks**.



1  Listen. Where do these animals live?  005

2 Describe the pictures. Are they adapted to the environment?





How do polar bears stay warm?

Polar bears live on the ice. They have thick fur and a thick layer of fat.
Can fat help **your** body stay warm?

Hypothesis

'I think fat **can** / **can't** help my hand stay warm longer'.

Materials

- a large bowl with water and ice
- a timer
- a spoon
- fat (for example butter)
- two freezer bags



Step 1

Put your hand in the ice water.
Use the timer. When it's too cold,
take your hand out.

Write the time in your notebook.



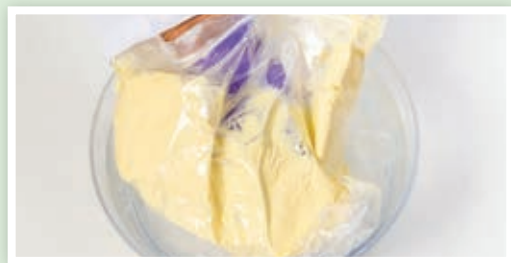
Step 2

Turn one bag inside out.
Put it inside the other bag.



Step 3

Put the fat between the two bags.
Seal the bags together.



Step 4

Put your hand inside the bags, like
a glove.

Repeat step 1. Compare the times.

▶ Watch. Compare your results with a classmate. Fill in the worksheet. 

What do animals do?

All animals eat, breathe, reproduce and interact with their environment.

1  Watch. Find two kinds of interaction.

Nutrition

Animals eat many different kinds of foods.



Carnivores eat other animals. They have got sharp teeth.

Omnivores eat plants and animals. They have got special teeth so that they can eat both plants and meat.



Herbivores eat plants. Many types of animals are herbivores, such as mammals, insects and birds.

Parasites live on or inside other animals and feed on them.



2 In your notebook, classify these animals as **carnivores**, **herbivores** or **omnivores**.

crocodile

rabbit

dog

elephant

rat

snake



Mammals, **birds** and **reptiles** use **lungs** to breathe. **Fish** and many invertebrates breathe with **gills**.

Most **amphibians** live in water when they are babies. Baby amphibians use **gills** to breathe. When amphibians are adults they breathe with **lungs**.



Reproduction

Animals **reproduce** to make more of their **species**



Some animals, such as **mammals**, are **viviparous**. They give birth to **live babies**.



Birds, amphibians and most **fish** and **reptiles** are **oviparous**. Their babies are **born from eggs**. Most invertebrates are oviparous.

3 **9** Work in pairs. Which animals are oviparous? Which have got lungs?



Interaction

All animals interact with their environment.

Some animals **fight** with other animals.



Sometimes animals **help** other animals. We call this **symbiosis**.



At home

Find a carnivore, a herbivore and an omnivore from your environment.

1 Say three things these animals have in common. Say three things that are different.

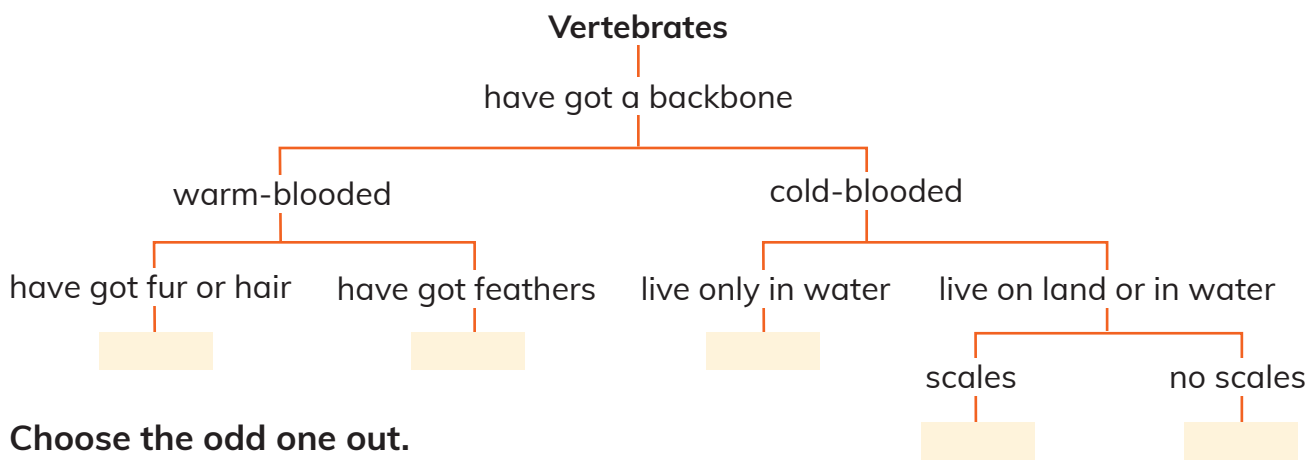


Eagles are ...

Ladybirds have got ...

2 Copy the chart in your notebook and complete it with the words in the box.

- mammals birds reptiles amphibians fish



3 Choose the odd one out.

- a. jellyfish, horse, panda, whale b. butterfly, spider, oyster, crab
- c. carnivore, omnivore, herbivore, viviparous d. antennae, spines, thorax, abdomen

4  Play the quiz!

5  Do the WebQuest.



WebQuest 

Strange animals.

Choose your three favourite strange animals. Answer:

- a. What is it? b. Where does it live? c. What type of animal is it?



Reflect


1 Read the unit objectives and say what you have learned.

- a. Write one objective you can do.
- b. Write one objective you need more practice with.

I can ... 

name the kingdoms of living things.

☆☆☆

I can ... 

explain the difference between vertebrates and invertebrates.

☆☆☆

I can ... 


name five different types of vertebrates and invertebrates.

☆☆☆

I can ... 

understand the ways animals adapt to their environment.

☆☆☆

I can ... 

talk about types of nutrition.




☆☆☆

I can ... 

say two ways animals reproduce.

☆☆☆

Key:

-  I'm not sure.
-  I need some practice.
-  I understand.

2 Where can you go to learn more about animals? Write in your notebook.

3 Show what you have learned. Choose one.

Create a poster.



Draw a picture.



Do a presentation.

