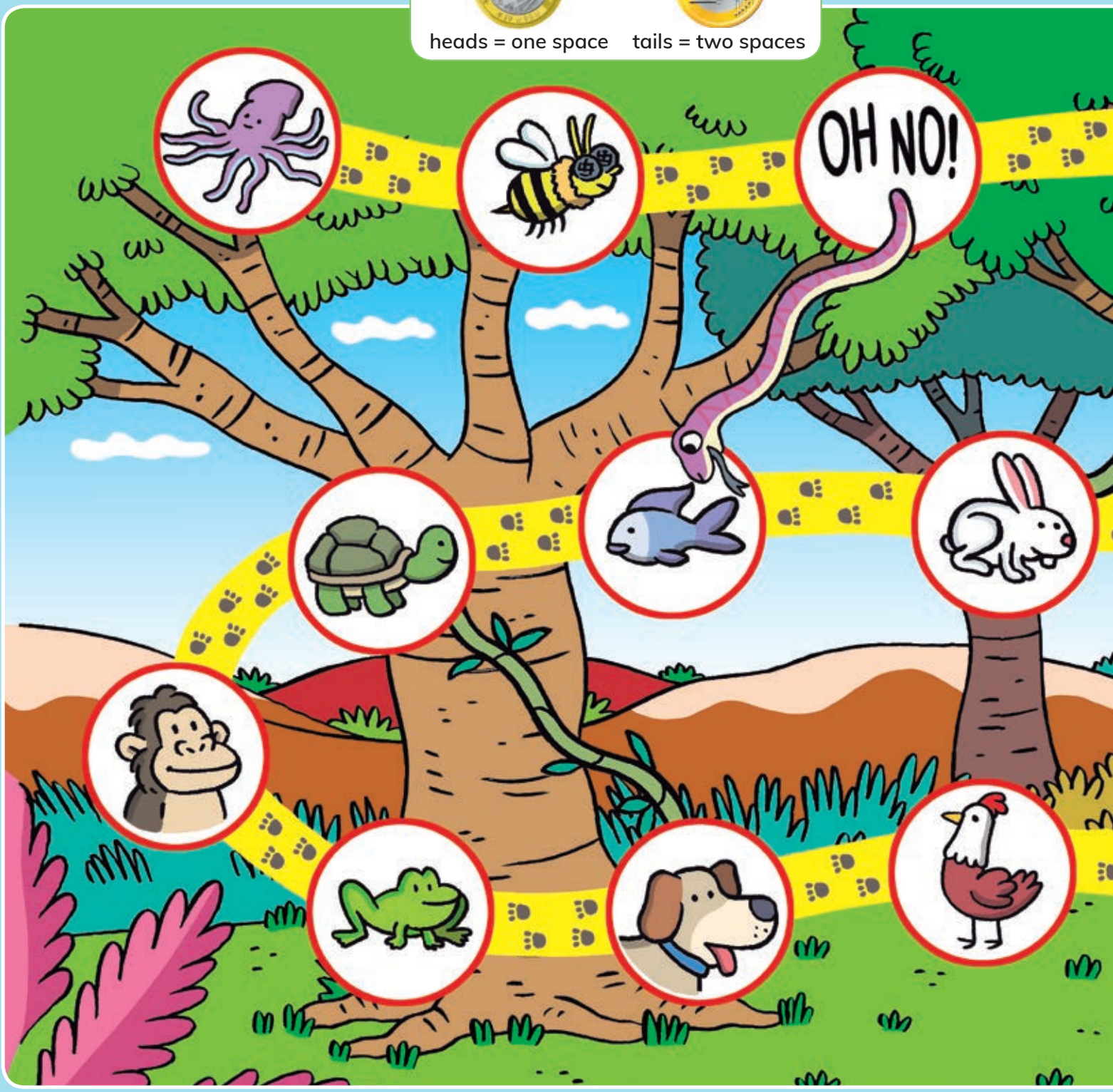
Unit 1

Animals

1 Watch. What is your favourite animal?

2 Play the game. Use a coin.



Questions (= one point each)

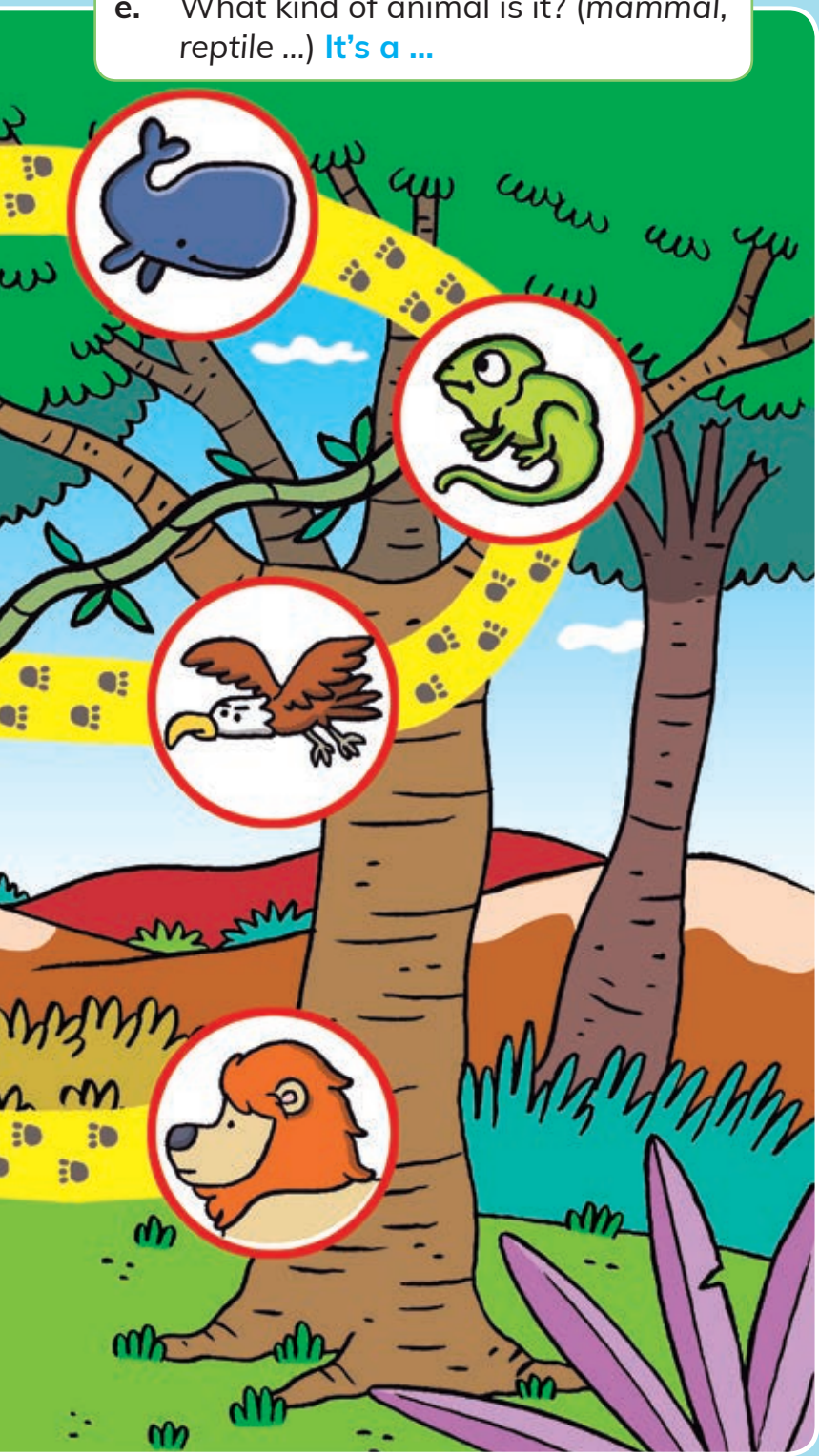
a. What is it? **It's a ...**

b. Does it live on land or in water? **It lives ...**

c. What does it eat? **It eats ...**

d. Does it lay eggs? **Yes, it does. / No, it doesn't.**

e. What kind of animal is it? (*mammal, reptile* ...) **It's a ...**



Let's learn about ...
- Different animals
- How animals adapt
- What animals do

3 **Say true or false. Copy the sentences. Correct the mistakes.**

a. Living things grow, reproduce and die.

b. Cats are reptiles.

c. Fish have scales.

d. Spiders are vertebrates.

e. Birds lay eggs.

4 **Look at the picture. Is this animal a vertebrate or an invertebrate?**

5 **Find the animal parts.**

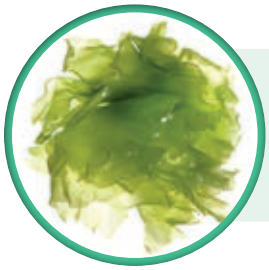
Be mindful

Be a cat! Listen and do the pose.

001

What are animals?

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



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

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

Plants have 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 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 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	Protoctists	Fungi	Plants	Animals

2 Watch. Copy and complete with the missing words.

There are two main groups in the Animal Kingdom:

a.

Vertebrates have a _____.

b.

_____ are animals that haven't got a backbone. They're often small.

3 Classify. Vertebrate or invertebrate?

jellyfish

monkey

owl

caterpillar

snail

fish

human

4 Listen. Stand up when you hear a vertebrate. Sit down when you hear an invertebrate. 002

5 Say true or false.

a. All invertebrates have a hard body.

b. Both vertebrates and invertebrates have a backbone.

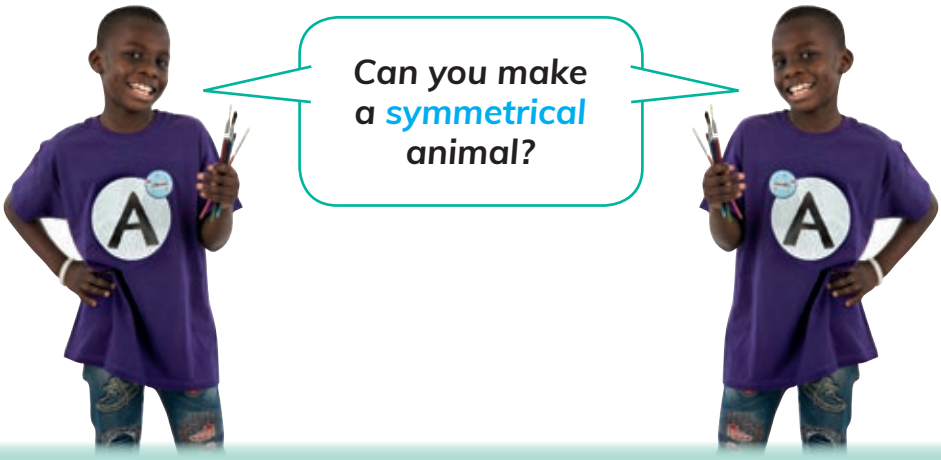
c. Skeletons aren't soft.

At home

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

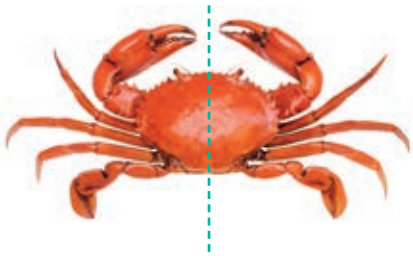
STEAM Challenge

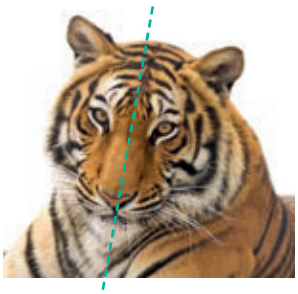
Make a symmetrical butterfly

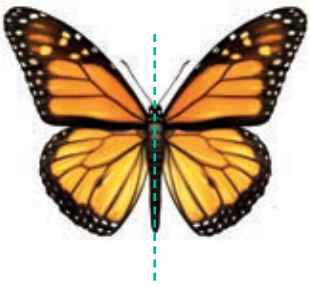


Before you start

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







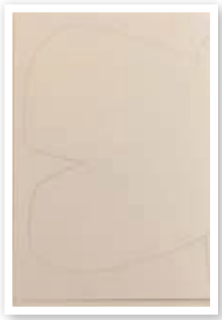
Almost all animals are **symmetrical**. This means their **left** and **right** sides are the same.

You need ...

- a paintbrush
- card
- paints
- pencil
- scissors

Planning

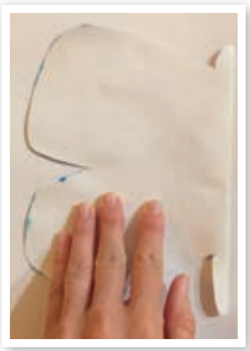
1 Fold the card in half. Draw an outline of half a butterfly.



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 **Watch.** **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. Penguins, for example, can swim very well but they can't fly.

Mammals have got hair or **fur**. They have **live** babies, who drink milk from their mother. 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 haven't got fur or scales. They are **cold-blooded**. Their skin can't be dry, so normally they live in places with water. Amphibians **lay eggs**.

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

Fish live in water. They use **fins** to swim and have got **scales** on their body. Fish are **cold-blooded**. Fish breathe under water with **gills**. Fish **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.

a. Choose an animal. Write three sentences.

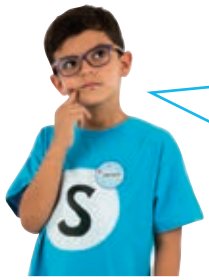
b. Play the guessing game!

c. Ask questions for more information:
Has it got ...? *Yes, it has. / No, it hasn't.*

WOW

Dinosaurs were reptiles!

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 *Vertebrate* chant. Guess the missing words.** 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?

CULTURE

Jane Goodall is a British scientist. She studied chimpanzees in Africa for more than 50 years.

What characteristic do chimpanzees have?

At home Teach the vertebrate chant at home.

What types of invertebrates are there?

97% of all animals are invertebrates. They don't have a **backbone**.

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 **antennae** and legs with joints. They have an **exoskeleton**. It protects their body.

1 **Use a magnifying glass and look at the spider and the beatle. How many legs have they got?**

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

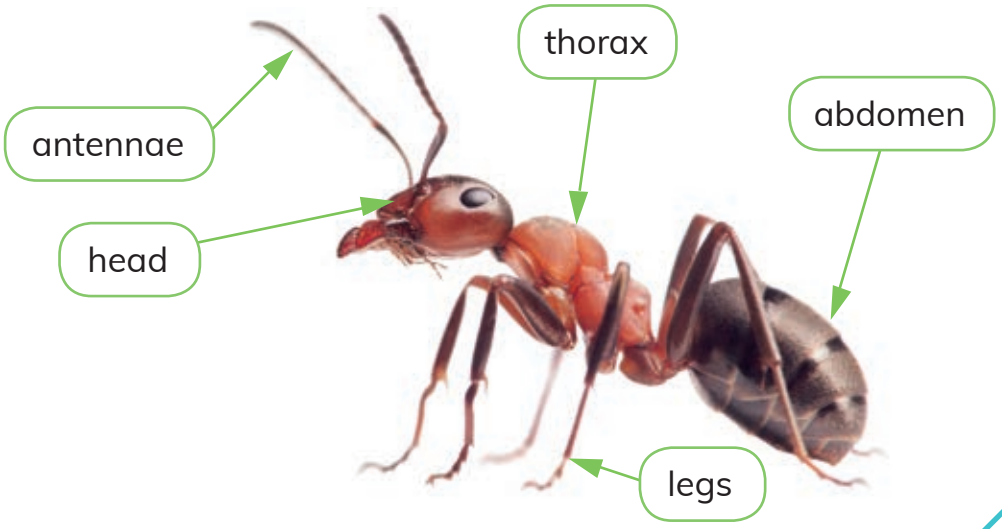
Echinoderms live in the ocean. They have **spines**. Some use their very small feet to move on the ocean floor.

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

2 **Use a magnifying glass and look at the molluscs. Which ones have a shell?**

3 **Listen and point.** 004

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



4 **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 has got a soft body. It hasn't got feet.

d. It doesn't live on land. It has spines. It hasn't got an exoskeleton.

WOW

When a starfish loses one of its legs, it can grow a new one.

5 **Draw these animals in your notebook. Then write the correct descriptions in activity 4 under each drawing.**



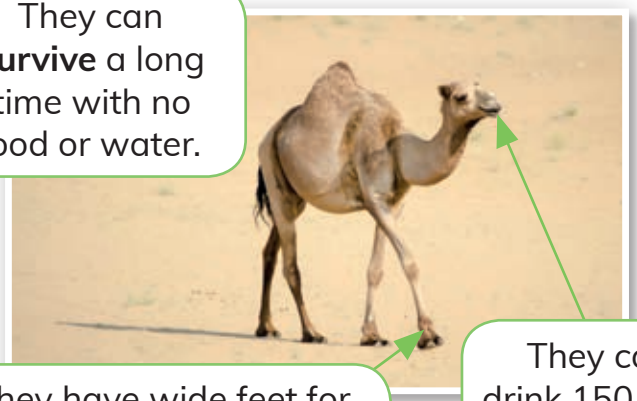

6 **Draw a picture of an invertebrate. Label it. Is this animal common in your region? Write two facts about it.**

At home Look for invertebrates at the supermarket.

How do animals adapt?

We find animals all over the world. They live in hot places, cold places, wet places and dry places. They **adapt** to their **environment** in many different ways.

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

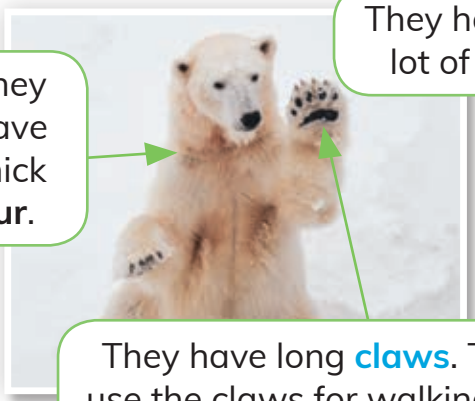


They can **survive** a long time with no food or water.

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

They can drink 150 litres of water.

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



They have a lot of **fat**.

They have thick **fur**.

They have long **claws**. They use the claws for walking and climbing on the ice.

Some animals use **camouflage** for protection. They change their colour or shape, so they match their environment.

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

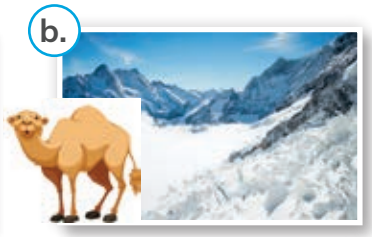
Stick insects normally live in trees. They look like **sticks**.

1 **Listen. Where do these animals live?** 005

2 **Look at the pictures. What's difficult for these animals? Can they adapt to their environments? Say why or why not.**

a.

b.



3 **Look around your classroom. Imagine an animal lives here. How can it use camouflage in this environment? Does it use colour or shape? Draw a picture.**

Science lab

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 spoon
- a timer
- 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. They do this in different ways.

1 **Watch.** **Find two kinds of interaction.**

Nutrition

Animals eat many different kinds of foods.

Carnivores eat other animals. They often have sharp teeth.

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

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

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

2 **Make sentences in your notebook.**

a. Carnivores eat

b. Herbivores eat

c. Omnivores eat

 plants.

 +  meat and plants.

 meat.

3 **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**. They do this in different ways.

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.

4 **Work in pairs. Answer the questions.**

a. Find out the names of these animals.

b. Which of these animals are oviparous?

c. Which of these animals have lungs?

Interaction

All animals interact with their environment.

5 **Look at the pictures and answer the questions.**

a. Some animals **fight** with other animals. Why are the tigers fighting?

b. Sometimes animals **help** other animals. We call this **symbiosis**. How are the birds helping the deer? Why do the birds do this?

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

Review

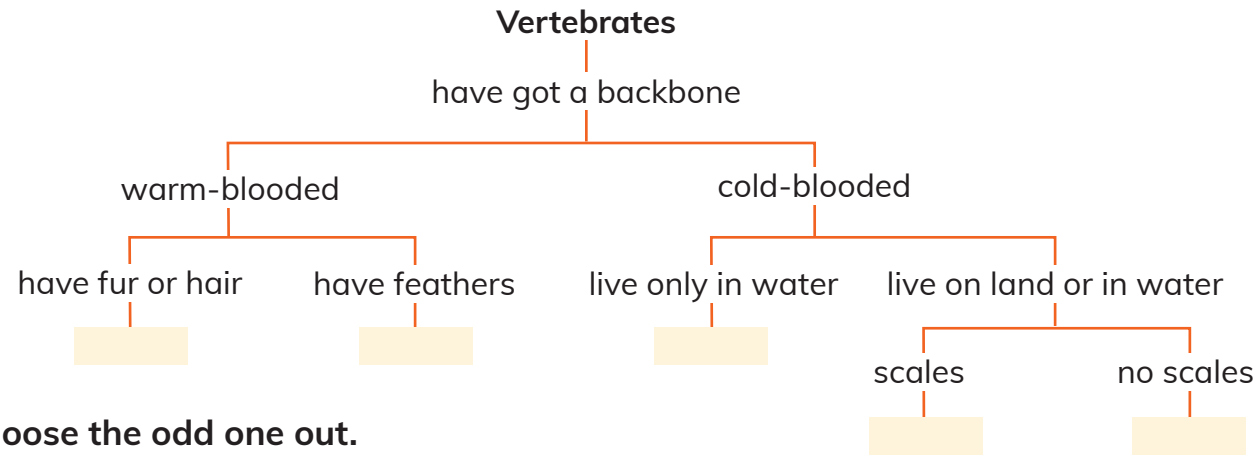
1 Say three things these animals have in common. Say three things that are different.

Eagles are ...

Ladybirds have ...

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 **Check. Copy the chart and colour the stars.**

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 nvironment.

☆ ☆ ☆

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.** **Make a presentation.**