

Science F-2

Chapter 2 — Biological sciences: living things, what they need, and how they are built

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Grouping plants and animals by observable features

This is read with the teacher. The teacher reads all the words. The child looks, says, points and does. The child does not need to read.

plants and animals have observable features that can be used to group them in different ways —
VC2S2U01

Evidences: They group plants and animals based on observable features.

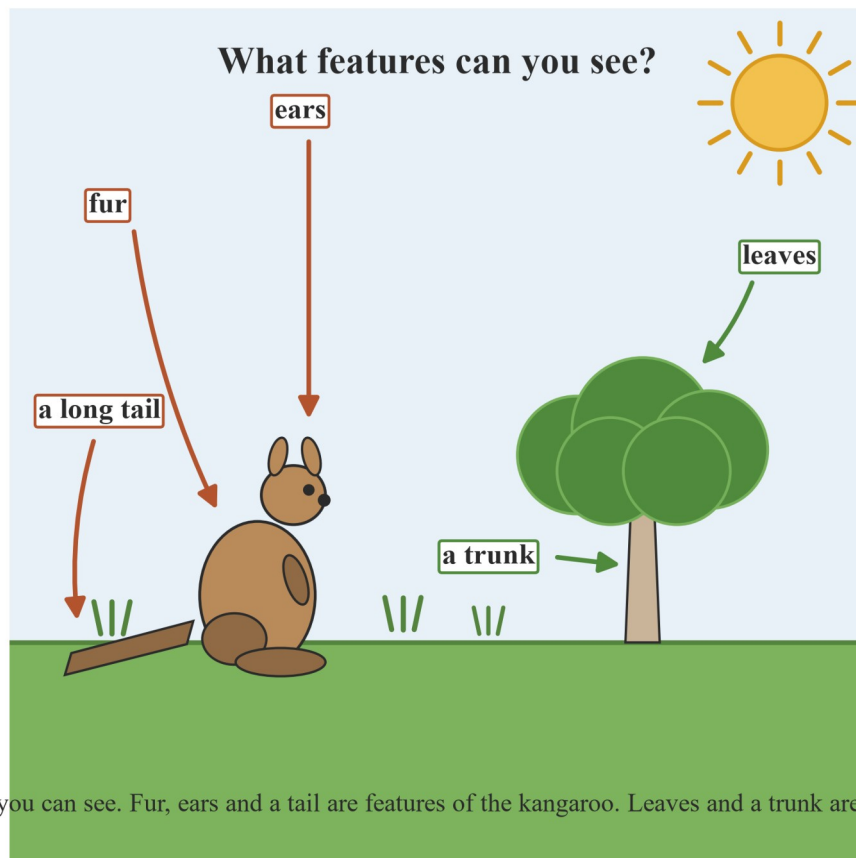
In this topic we will:

- look at plants and animals and name the features we can see (E01, E02, E03)
- name the parts of a plant: roots, leaves, flower and fruit (E01)
- use a magnifying glass and a camera to see small features (E04)
- sort the same model animals two ways and say the rule each time (E05)

Theory

A feature is something you can see

Look at the kangaroo and the gum tree.



A feature is something you can see. Fur, ears and a tail are features of the kangaroo. Leaves and a trunk are features of the gum tree.

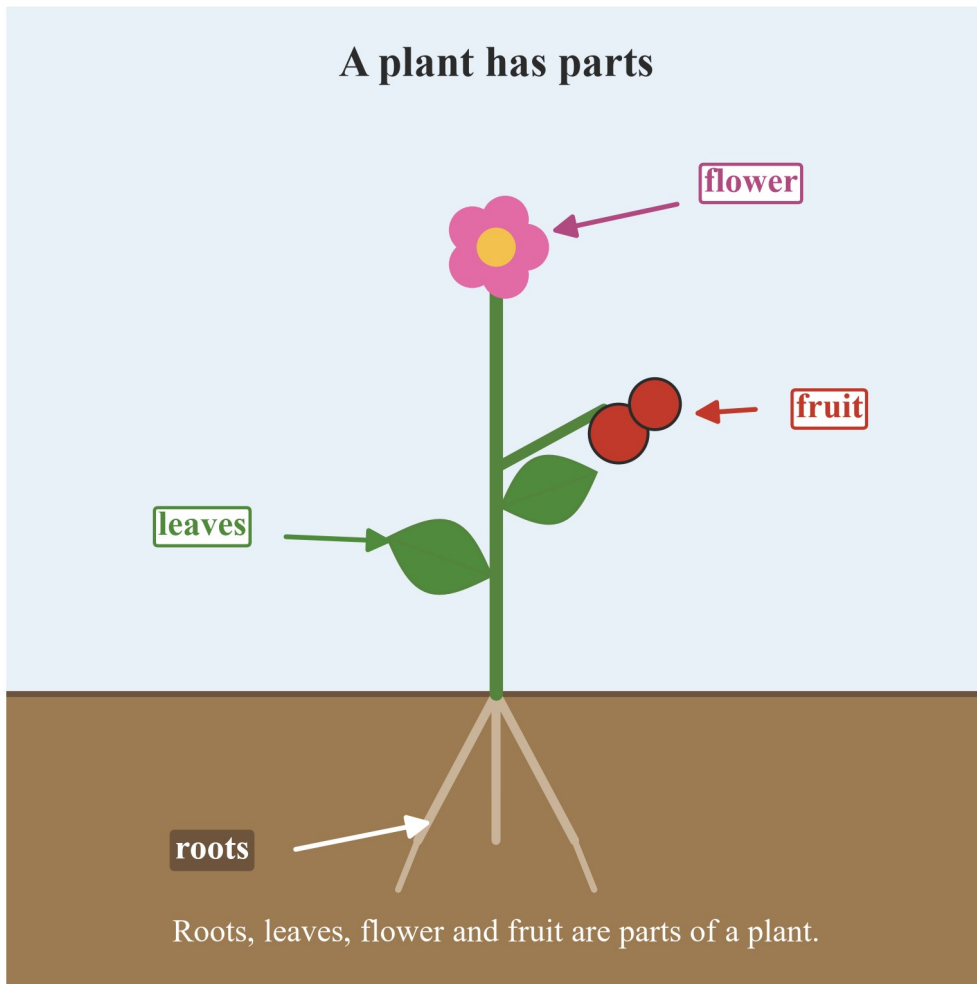
A kangaroo and a gum tree on grass with the sun in the sky. Labels point to the fur, ears and long tail of the kangaroo, and to the leaves and trunk of the gum tree.

A **feature** is something you can see. The kangaroo has fur. It has ears and a long tail. The gum tree has leaves and a trunk. The **trunk** is the part of a tree that grows up from the ground. The leaves sit on it.

Fur, ears, a long tail, leaves and a trunk are all features. We can use features to put living things into groups. A **group** is things put together by a rule.

Features of plants: roots, leaves, flower and fruit

A plant has parts we can see.



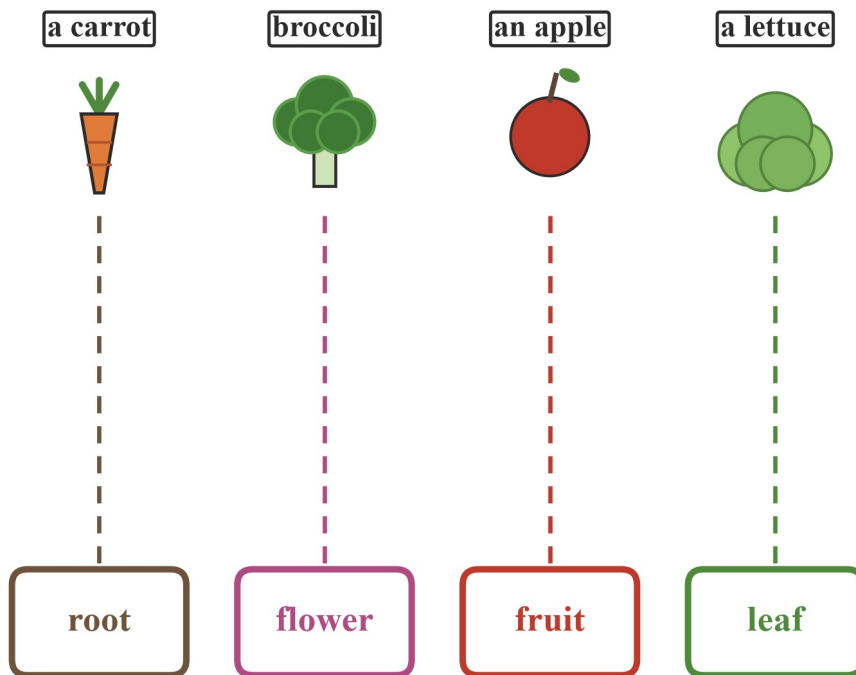
A plant with its roots in the soil. Labels name the roots, the leaves, the flower and the fruit.

- The **roots** are the parts under the soil.
- The **leaves** are the flat green parts.
- The **flower** makes seeds.
- The **fruit** holds the seeds.

Roots, leaves, flower and fruit are features of a plant. We can use them to group plants.

The fruit and vegetables we eat are plant parts too.

The fruit and vegetables we eat are plant parts



A carrot is a root. Broccoli is a flower. An apple is a fruit. Lettuce is a leaf.

A carrot matched to root, broccoli matched to flower, an apple matched to fruit and a lettuce matched to leaf.

- A carrot is a root.
- Broccoli is a flower.
- An apple is a fruit.
- A lettuce is a leaf.

When you eat a fruit or a vegetable, say which plant part it is.

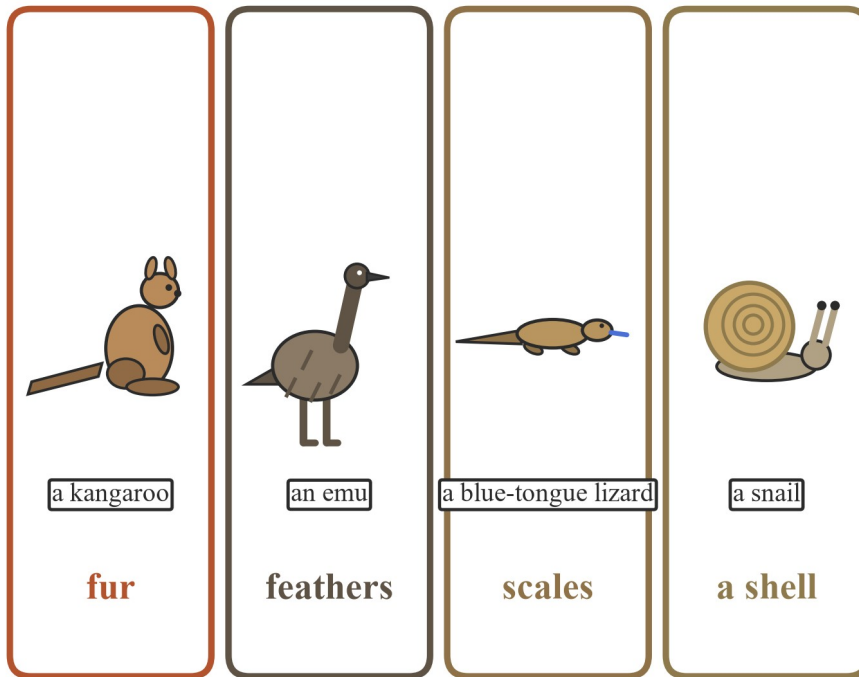
You can see many plants at the Royal Botanic Gardens Victoria in Melbourne. Look for the roots, the leaves, the flowers and the fruit.

Source: Royal Botanic Gardens Victoria, Royal Botanic Gardens Victoria, n.d. Retrieved 2026-08-20.

Features of animals: body coverings

The **covering** is what is on the outside of an animal's body. The covering is a feature we can see.

Animals have different body coverings



The covering is what is on the outside of an animal's body.

Four cards. A kangaroo with fur, an emu with feathers, a blue-tongue lizard with scales and a snail with a shell.

- A kangaroo has **fur**.
- An emu has **feathers**.
- A blue-tongue lizard has **scales**.
- A snail has a **shell**.

Point to each animal and say its covering.

Backbone: vertebrates and invertebrates

Some animals have a **backbone**. The backbone is a row of small bones down the middle of the back. Run a finger down the middle of your back. You can feel your own backbone.

An animal with a backbone is a **vertebrate**. An animal with no backbone is an **invertebrate**.

Does it have a backbone?

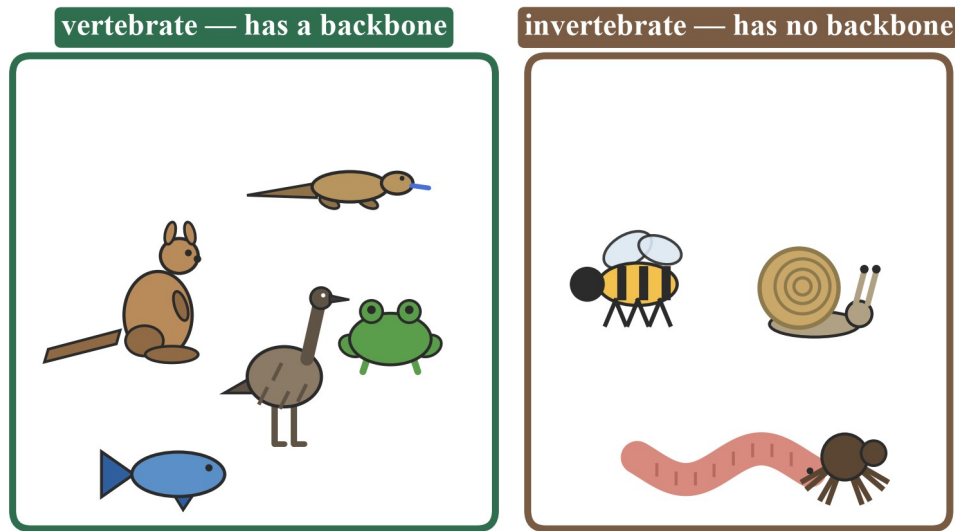
vertebrate has a backbone	invertebrate has no backbone
	
The backbone is a row of small bones down the middle of the body.	A worm is soft. It has no bones inside it at all.

You can feel your own backbone. Run a finger down the middle of your back.

Two cards. The vertebrate card shows a fish with the backbone inside its body. The invertebrate card shows a worm with no bones.

- A fish is a vertebrate. It has a backbone.
- A worm is an invertebrate. It has no backbone.

Sort by backbone



These animals all live in Victoria. Five are vertebrates. Four are invertebrates.

Nine animals from Victoria sorted into two boxes. Kangaroo, emu, blue-tongue lizard, frog and fish are in the vertebrate box. Bee, snail, worm and spider are in the invertebrate box.

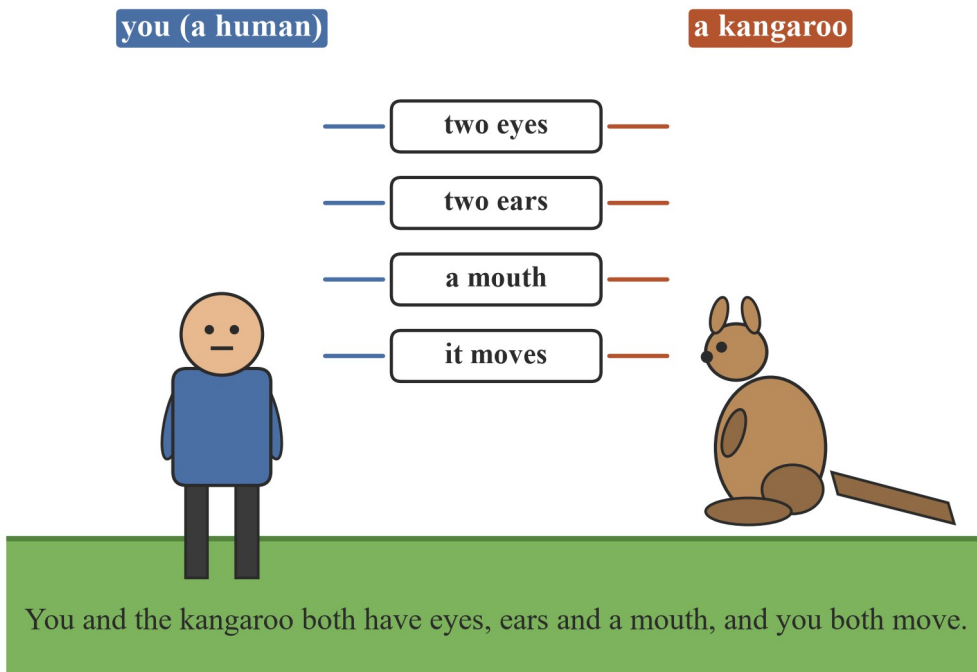
These animals all live in Victoria. Five are vertebrates. Four are invertebrates. You can see some of them at Healesville Sanctuary, a zoo in Victoria.

Source: Zoos Victoria, Healesville Sanctuary, n.d. Retrieved 2026-08-20.

You are an animal too

You are an animal. Humans are animals.

You are an animal too



A child and a kangaroo with feature cards between them: two eyes, two ears, a mouth, it moves.

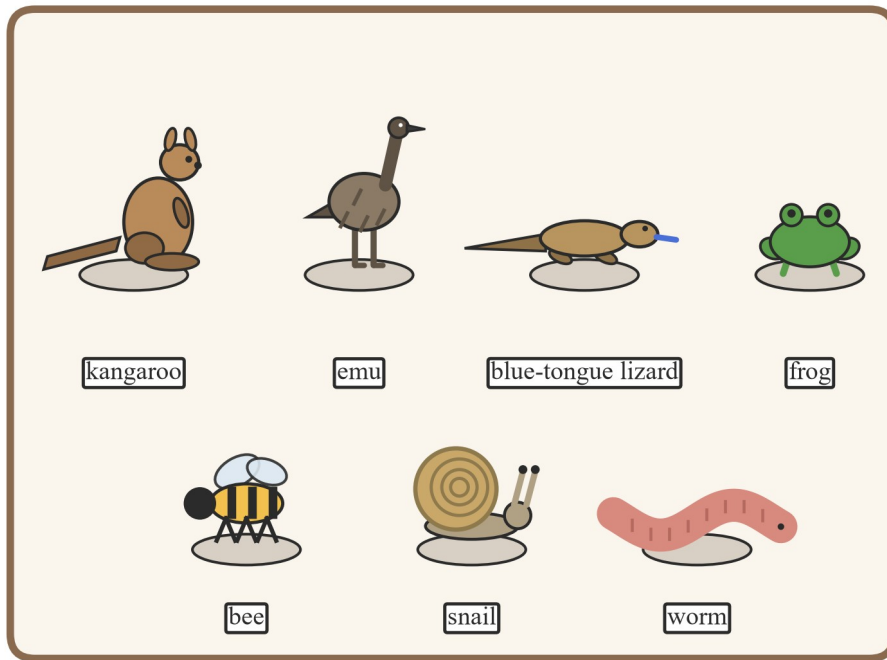
- You have two eyes. The kangaroo has two eyes.
- You have two ears. The kangaroo has two ears.
- You have a mouth. The kangaroo has a mouth.
- You move. The kangaroo moves.

You and the kangaroo are the same in these ways. You are both animals.

Sorting the same models two ways

Here is a tray of model animals. A **model** is a small copy of a thing.

A tray of model animals



A model is a small copy of a thing. We can sort the models into groups.

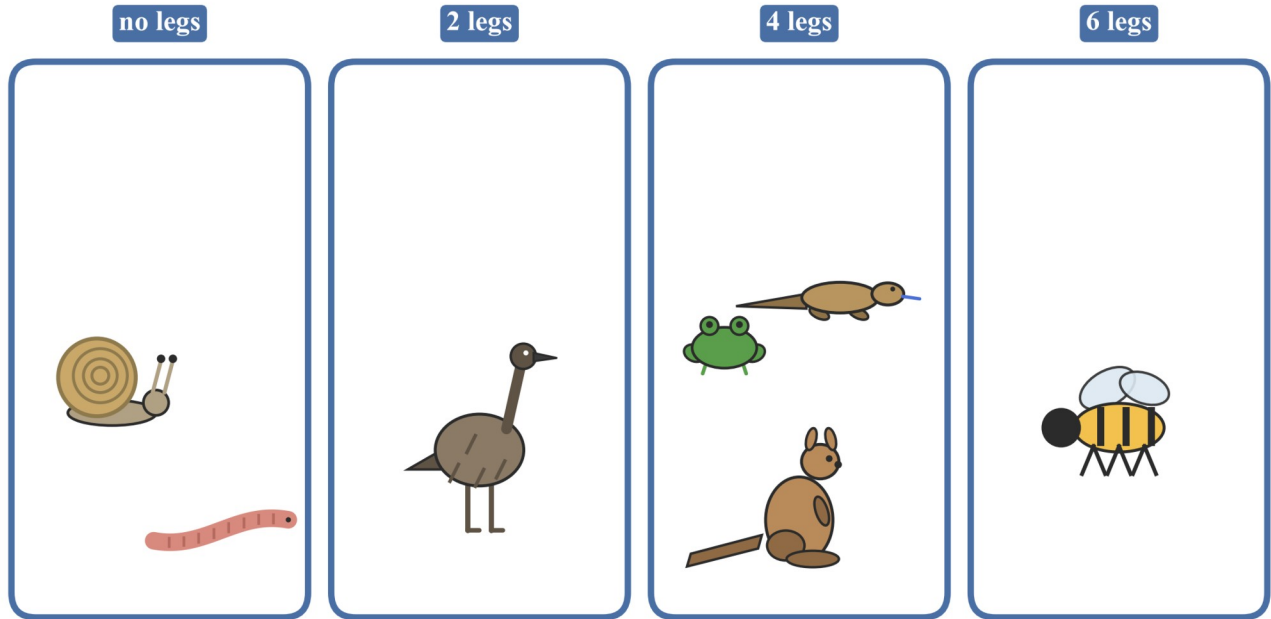
A tray with seven model animals, each with a name card: kangaroo, emu, blue-tongue lizard, frog, bee, snail and worm.

We can sort the same models in different ways. Each time, we say the rule.

Sort 1. The rule is: how many legs?

Sort 1 — rule: how many legs?

The same seven models, sorted by the number of legs.



Say the rule: we sorted by how many legs each animal has.

The same seven models sorted into four boxes by the number of legs. Snail and worm in no legs, emu in 2 legs, kangaroo, blue-tongue lizard and frog in 4 legs, bee in 6 legs.

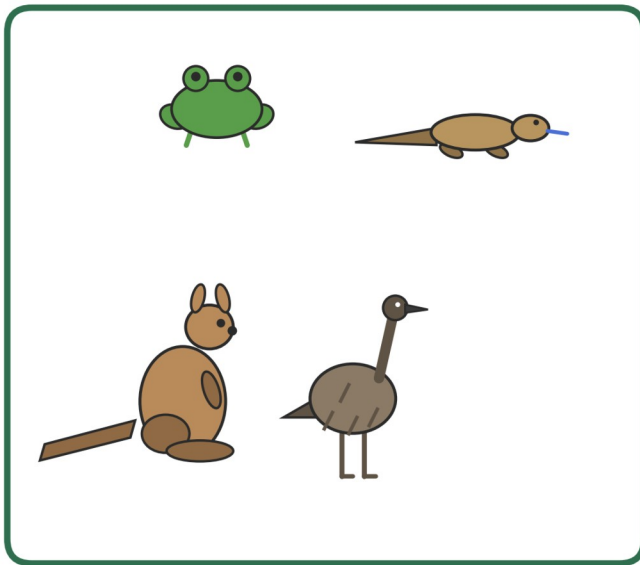
The snail and the worm have no legs. The emu has 2 legs. The kangaroo, the blue-tongue lizard and the frog have 4 legs. The bee has 6 legs. Say the rule: we sorted by how many legs.

Sort 2. Now the rule is: backbone or no backbone?

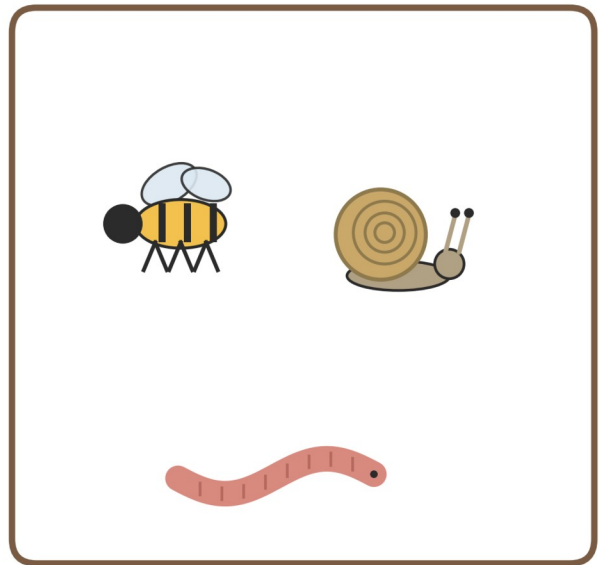
Sort 2 — rule: backbone or no backbone?

The same models again — but now the rule is the backbone.

has a backbone



has no backbone



Say the rule: we sorted by backbone or no backbone.

The same seven models sorted into two boxes. Kangaroo, emu, blue-tongue lizard and frog in has a backbone. Bee, snail and worm in has no backbone.

The kangaroo, the emu, the blue-tongue lizard and the frog have a backbone. The bee, the snail and the worm have no backbone. Say the rule: we sorted by backbone or no backbone.

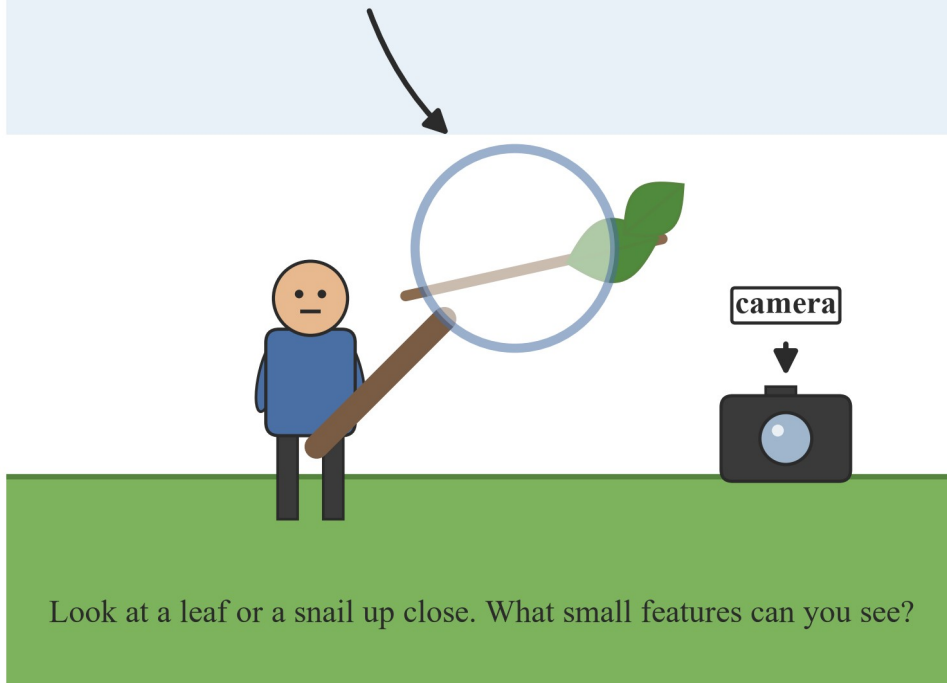
The models are the same both times. The groups change when the rule changes.

Tools to see small features

Some features are small. Tools help us see them.

Tools help us see small features

magnifying glass



A child using a magnifying glass to look at leaves on a branch, and a camera close by.

- A **magnifying glass** makes small things look big.
- A **camera** takes a photo. We can look at the photo up close.

With tools, we can see more features of seeds, flowers, fruit and roots. We can see more features of eyes, body coverings, legs and wings too.

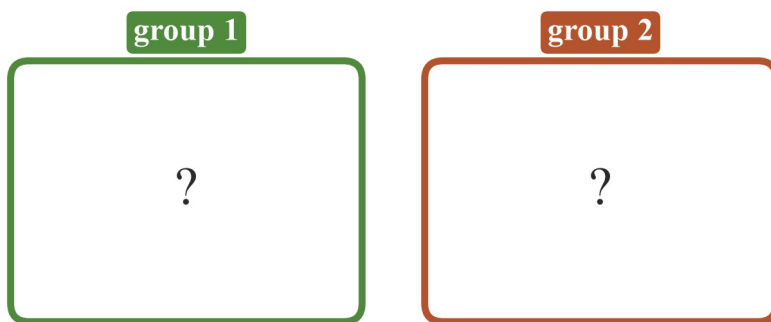
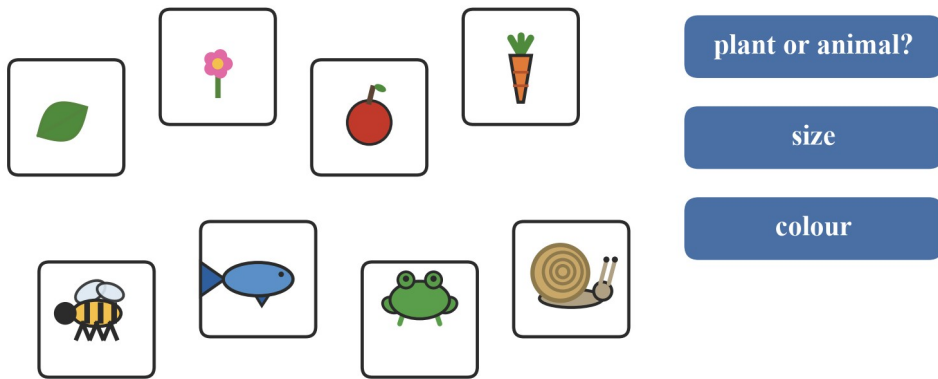
Never look at the Sun with a magnifying glass. Never look straight at the Sun.

Wash your hands after you touch plants or animals.

Your turn: you choose the rule

Now you choose the rule.

You choose the rule



Sort the eight cards into two groups. Then say your rule.

Eight picture cards: leaf, flower, apple, carrot, bee, fish, frog and snail. Below are two boxes for groups, and rule cards: plant or animal?, size and colour.

Sort the eight cards into two groups. Then say your rule. You can sort by plant or animal. You can sort by size. You can sort by colour. Any rule that works is a good rule.

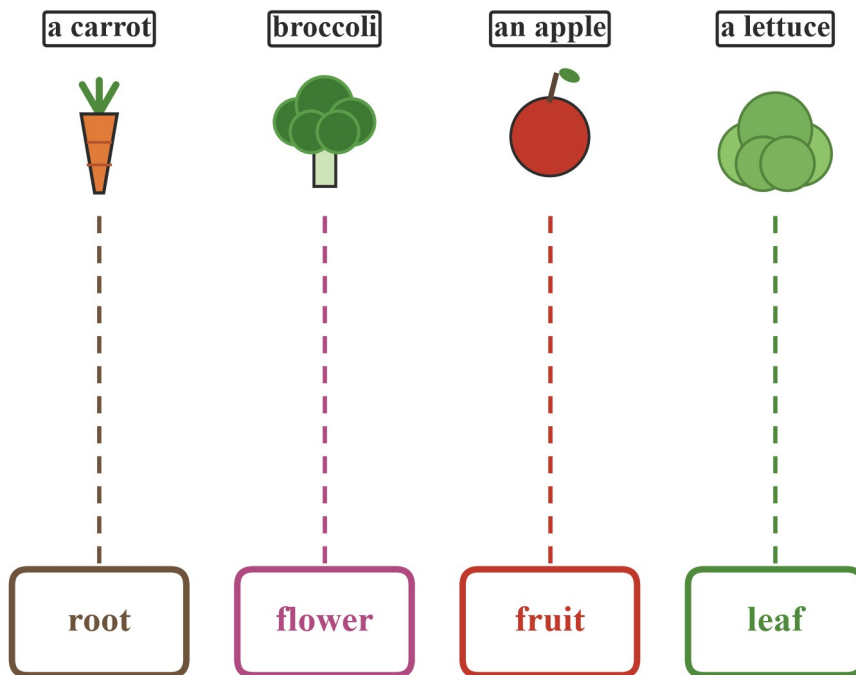
Worked examples

Do these with the teacher. Use what you can see here.

Worked example 1 — which plant part?

Look at the fruit and vegetables. Is an apple a root, a leaf, a flower or a fruit?

The fruit and vegetables we eat are plant parts



A carrot is a root. Broccoli is a flower. An apple is a fruit. Lettuce is a leaf.

A carrot matched to root, broccoli matched to flower, an apple matched to fruit and a lettuce matched to leaf.

Working

Say why

The apple holds seeds.

The fruit is the part that holds the seeds.

So the apple is a fruit.

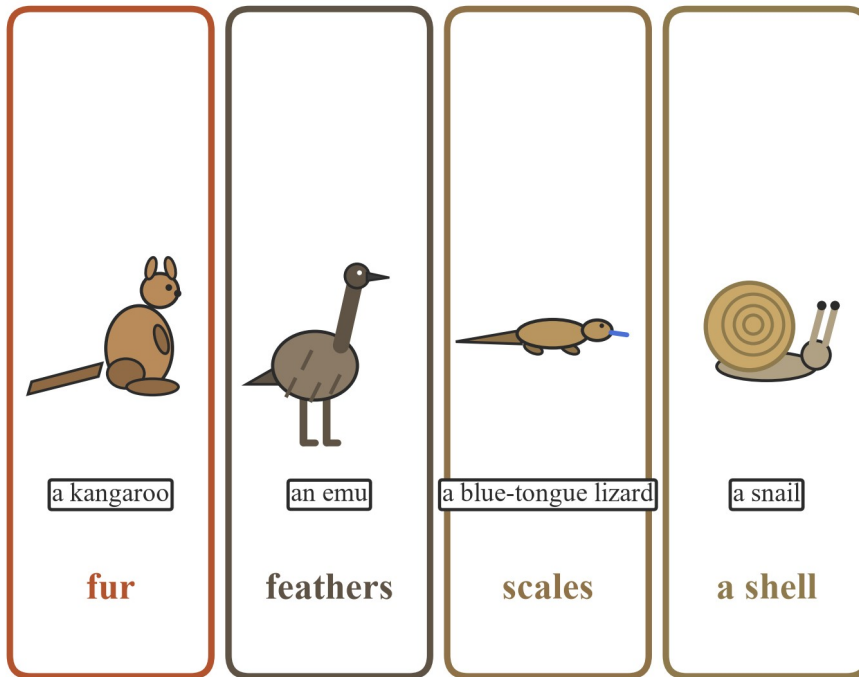
Fruit holds seeds.

∴ The apple is a fruit.

Worked example 2 — name the covering

What is the covering of the emu?

Animals have different body coverings



The covering is what is on the outside of an animal's body.

Four cards. A kangaroo with fur, an emu with feathers, a blue-tongue lizard with scales and a snail with a shell.

Working

Find the emu in the picture.

The outside of the emu is feathers.

∴ The emu has feathers.

Say why

The emu is the tall bird.

The covering is what is on the outside.

Worked example 3 — vertebrate or invertebrate?

A frog has a backbone. A snail has no backbone. Which one is a vertebrate?

Working

A vertebrate is an animal with a backbone.

The frog has a backbone.

The snail has no backbone.

∴ The frog is a vertebrate. The snail is an invertebrate.

Say why

That is what vertebrate means.

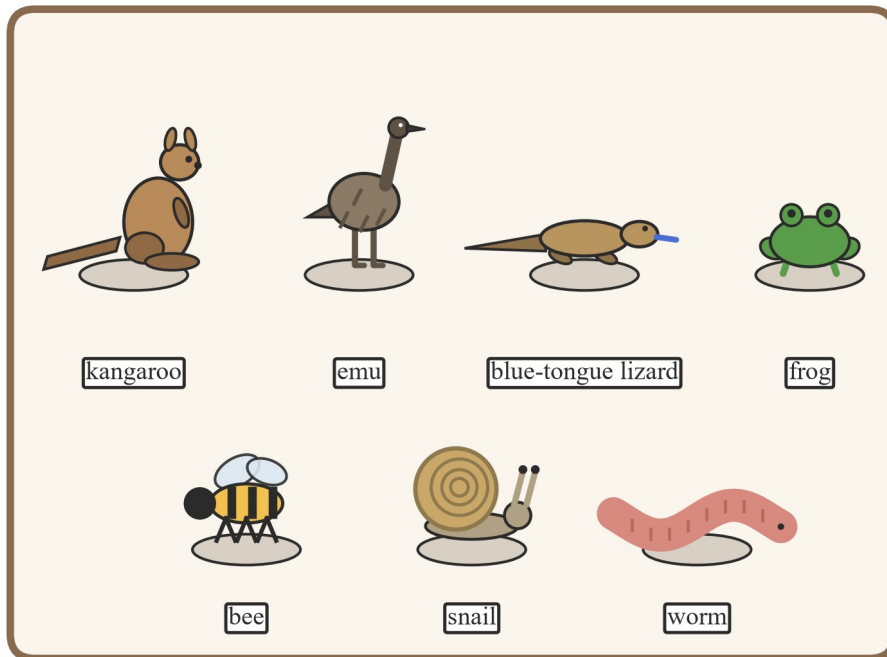
So the frog is a vertebrate.

No backbone means invertebrate.

Worked example 4 — two sorts, two rules

Look at the tray, then at Sort 1 and Sort 2. The emu goes in which group in Sort 1? In which group in Sort 2?

A tray of model animals

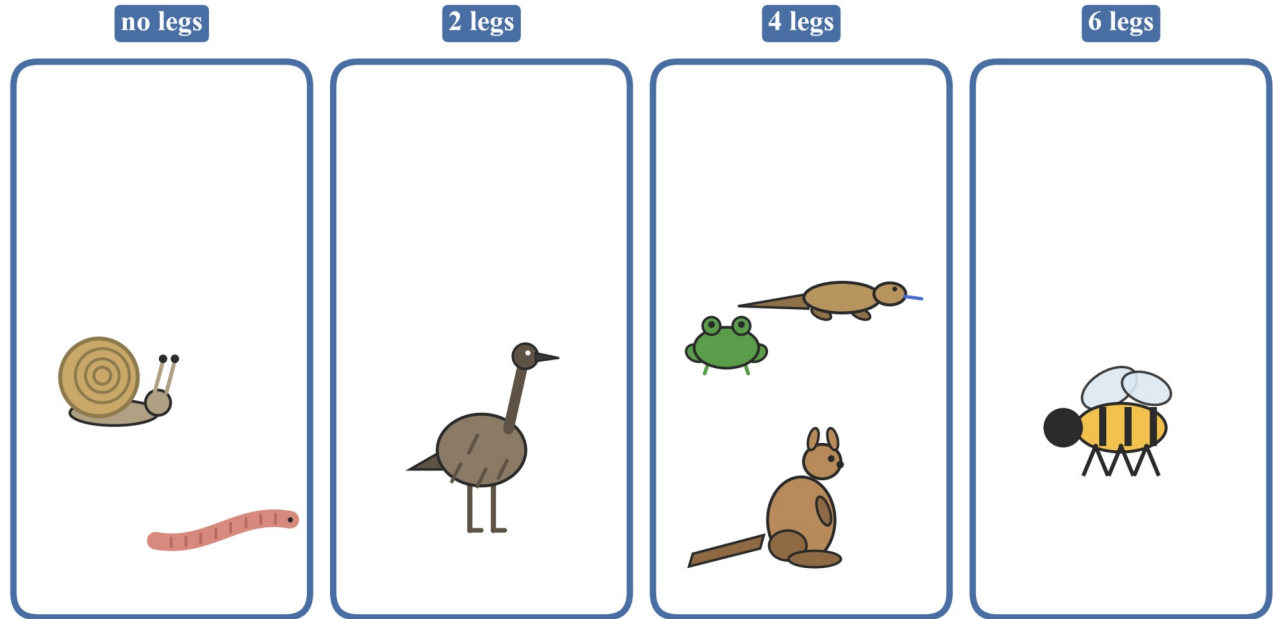


A model is a small copy of a thing. We can sort the models into groups.

A tray with seven model animals, each with a name card: kangaroo, emu, blue-tongue lizard, frog, bee, snail and worm.

Sort 1 — rule: how many legs?

The same seven models, sorted by the number of legs.



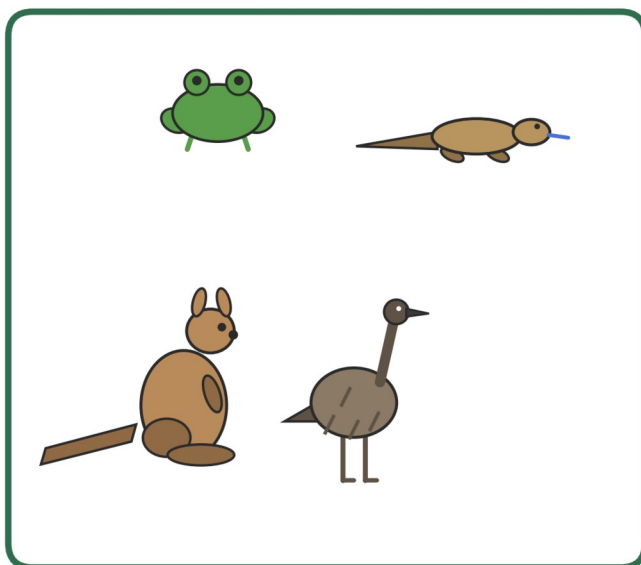
Say the rule: we sorted by how many legs each animal has.

The same seven models sorted into four boxes by the number of legs. Snail and worm in no legs, emu in 2 legs, kangaroo, blue-tongue lizard and frog in 4 legs, bee in 6 legs.

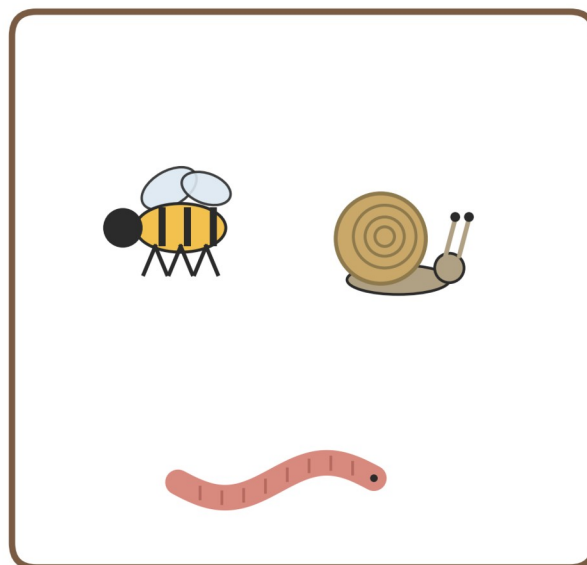
Sort 2 — rule: backbone or no backbone?

The same models again — but now the rule is the backbone.

has a backbone



has no backbone



Say the rule: we sorted by backbone or no backbone.

The same seven models sorted into two boxes. Kangaroo, emu, blue-tongue lizard and frog in has a backbone. Bee, snail and worm in has no backbone.

Working

Say why

Sort 1 rule: how many legs. The emu has 2 legs.

We say the rule first.

The emu goes in the 2 legs group.

Same rule, same group.

Sort 2 rule: backbone or no backbone. The emu has a backbone.

The emu is a bird, and birds have a backbone.

The emu goes in the has a backbone group.

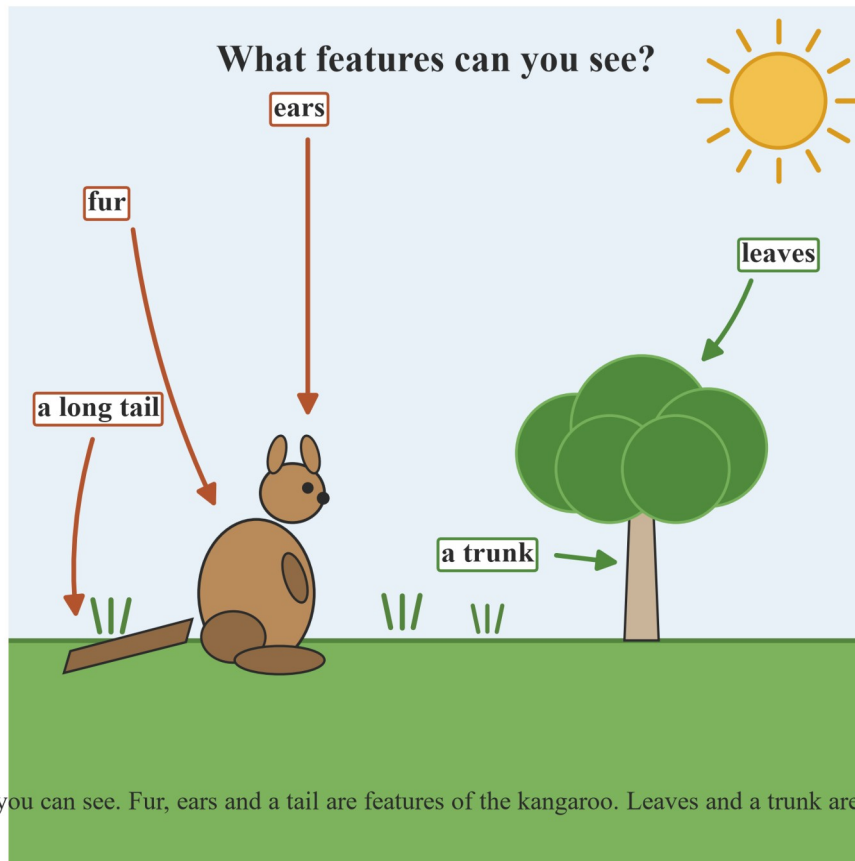
Same rule, same group.

∴ Sort 1: the emu is in the 2 legs group. Sort 2: the emu is in the has a backbone group. The groups change when the rule changes.

Practice questions

The teacher reads all the words. The child says or does the answer. The teacher puts the answer down.

Q1. (Foundation) Look at the kangaroo and the gum tree.

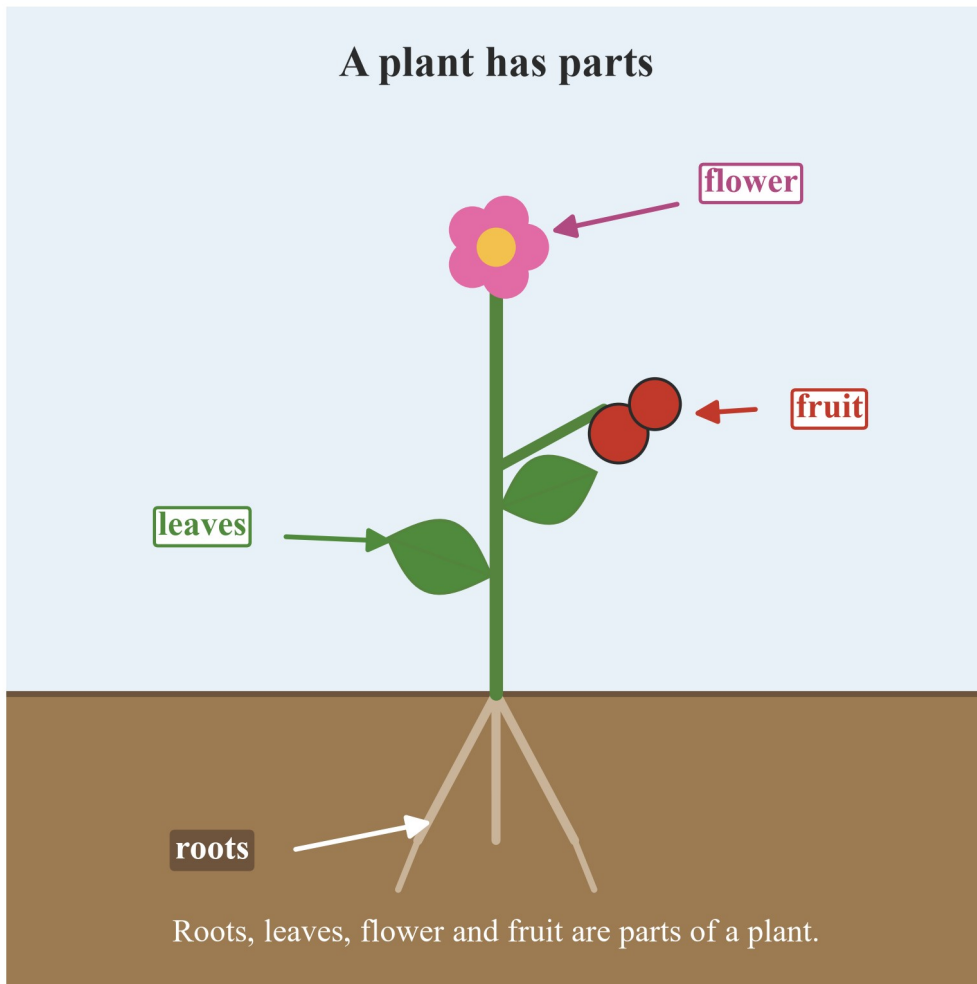


A feature is something you can see. Fur, ears and a tail are features of the kangaroo. Leaves and a trunk are features of the gum tree.

A kangaroo and a gum tree on grass with the sun in the sky. Labels point to the fur, ears and long tail of the kangaroo, and to the leaves and trunk of the gum tree.

- Point to the fur.
- Point to the leaves.
- Say one feature of the kangaroo.

Q2. (Foundation) Look at the plant parts.

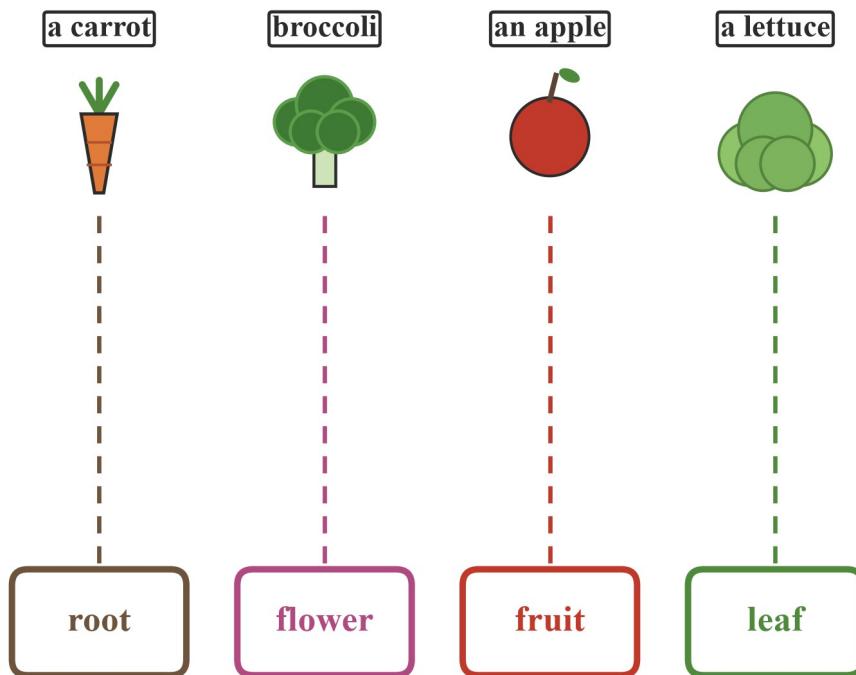


A plant with its roots in the soil. Labels name the roots, the leaves, the flower and the fruit.

- a. Point to the roots.
- b. Point to the flower.
- c. Say the part that is flat and green.

Q3. *(Foundation)* Look at the food tray.

The fruit and vegetables we eat are plant parts



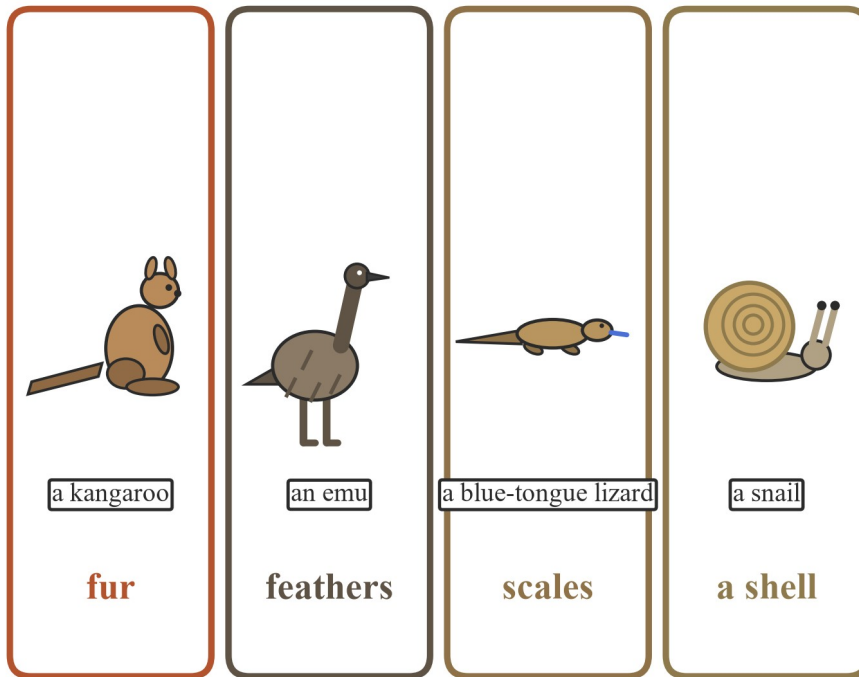
A carrot is a root. Broccoli is a flower. An apple is a fruit. Lettuce is a leaf.

A carrot matched to root, broccoli matched to flower, an apple matched to fruit and a lettuce matched to leaf.

- Point to the plant part that is a root.
- Point to the fruit.
- Say which part the lettuce is.

Q4. (Foundation) Look at the body coverings.

Animals have different body coverings



The covering is what is on the outside of an animal's body.

Four cards. A kangaroo with fur, an emu with feathers, a blue-tongue lizard with scales and a snail with a shell.

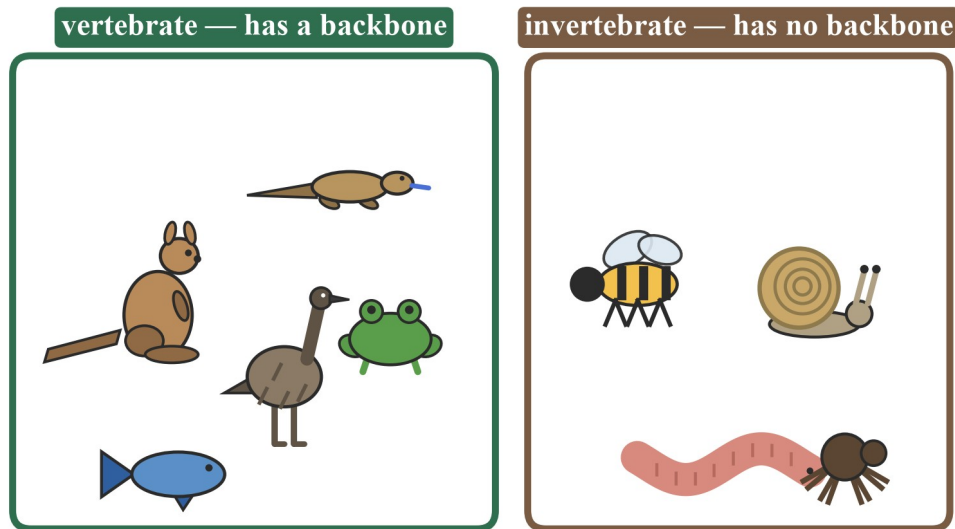
- Point to the animal with feathers.
- Point to the animal with a shell.
- Say the covering of the kangaroo.

Q5. (Level 1) Circle vertebrate or invertebrate for each animal.

- A fish. vertebrate · invertebrate
- A worm. vertebrate · invertebrate
- A frog. vertebrate · invertebrate

Q6. (Level 1) Look at the backbone sort.

Sort by backbone



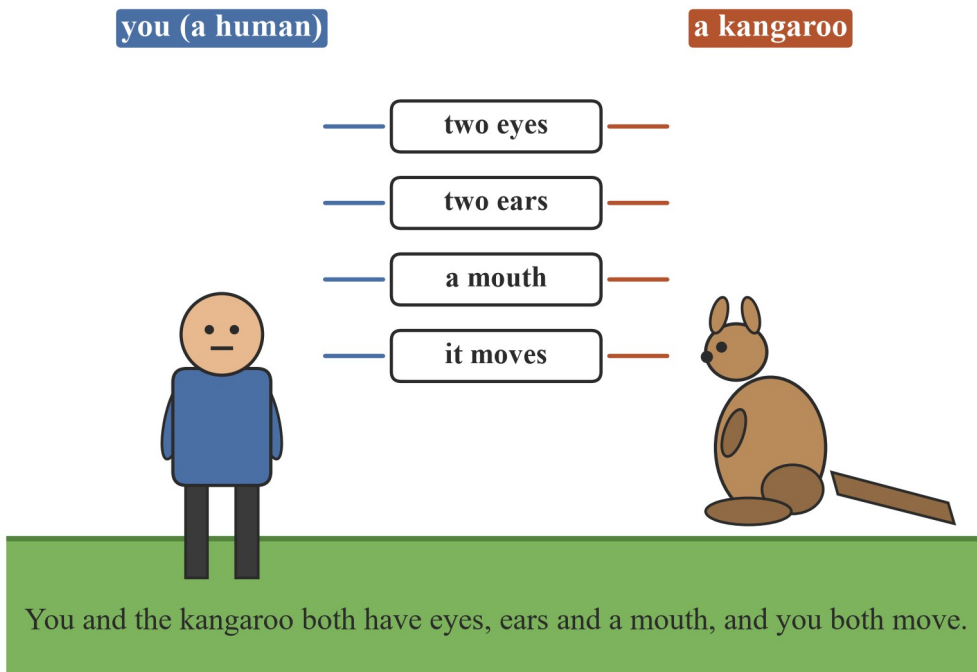
These animals all live in Victoria. Five are vertebrates. Four are invertebrates.

Nine animals from Victoria sorted into two boxes. Kangaroo, emu, blue-tongue lizard, frog and fish are in the vertebrate box. Bee, snail, worm and spider are in the invertebrate box.

- Say one vertebrate.
- Say one invertebrate.
- Say the rule for this sort.

Q7. *(Level 1)* Look at you and the kangaroo.

You are an animal too



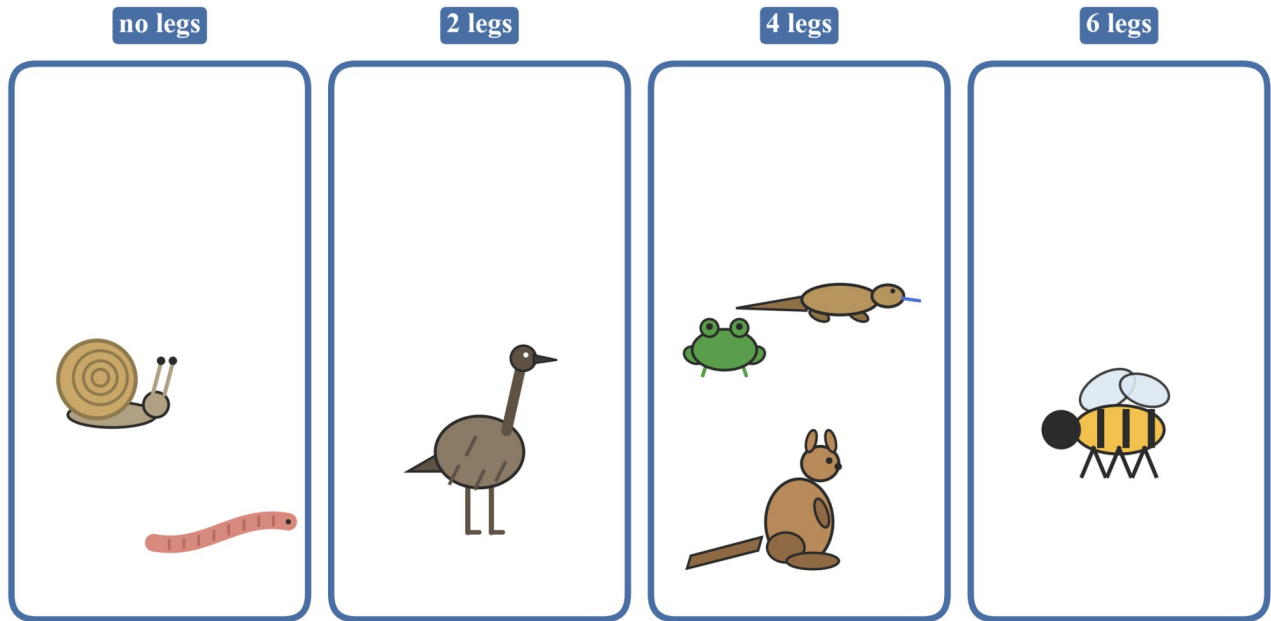
A child and a kangaroo with feature cards between them: two eyes, two ears, a mouth, it moves.

- Name one feature you and the kangaroo both have.
- Name one more feature you and the kangaroo both have.
- You are an animal. Circle yes or no.

Q8. (Level 1) Look at Sort 1.

Sort 1 — rule: how many legs?

The same seven models, sorted by the number of legs.



Say the rule: we sorted by how many legs each animal has.

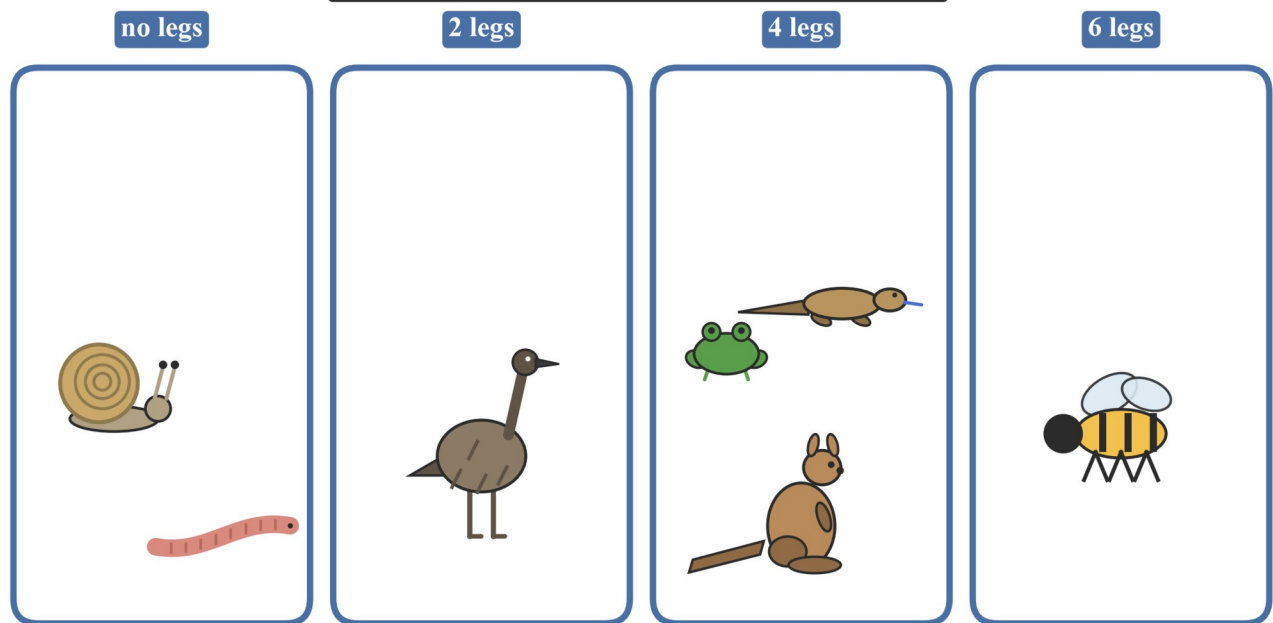
The same seven models sorted into four boxes by the number of legs. Snail and worm in no legs, emu in 2 legs, kangaroo, blue-tongue lizard and frog in 4 legs, bee in 6 legs.

- The bee goes in which group?
- The emu goes in which group?
- Say the rule for this sort.

Q9. (Level 2) Look at Sort 1 and Sort 2.

Sort 1 — rule: how many legs?

The same seven models, sorted by the number of legs.



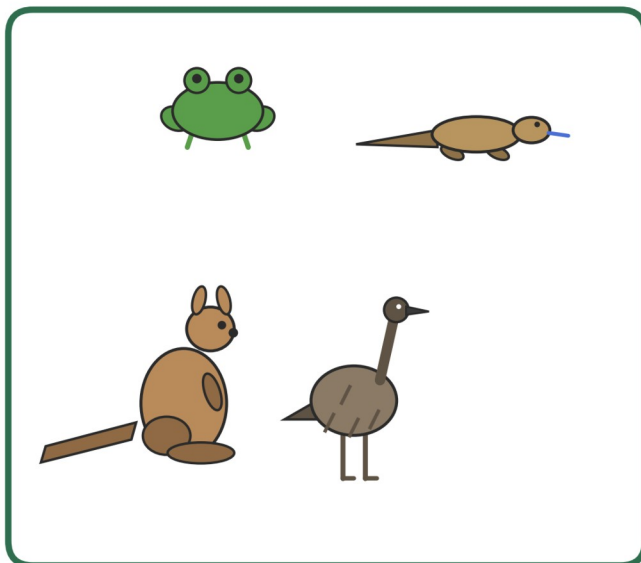
Say the rule: we sorted by how many legs each animal has.

The same seven models sorted into four boxes by the number of legs. Snail and worm in no legs, emu in 2 legs, kangaroo, blue-tongue lizard and frog in 4 legs, bee in 6 legs.

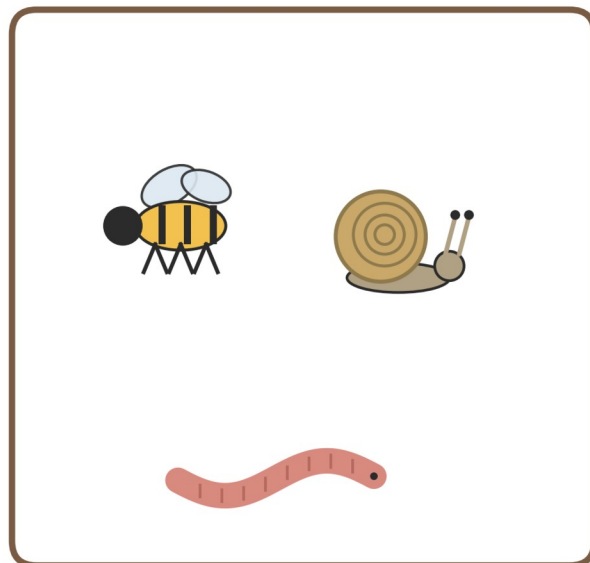
Sort 2 — rule: backbone or no backbone?

The same models again — but now the rule is the backbone.

has a backbone



has no backbone



Say the rule: we sorted by backbone or no backbone.

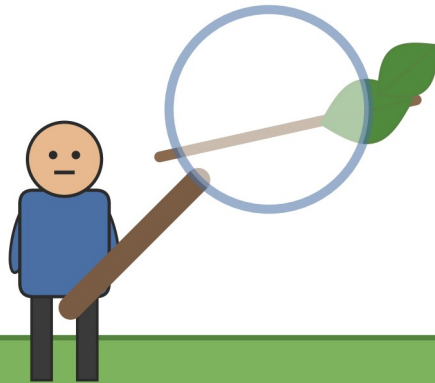
The same seven models sorted into two boxes. Kangaroo, emu, blue-tongue lizard and frog in has a backbone. Bee, snail and worm in has no backbone.

- The snail is in which group in Sort 1?
- The snail is in which group in Sort 2?
- The models are the same. Why do the groups change?

Q10. (Level 2) Look at the tools.

Tools help us see small features

magnifying glass



camera



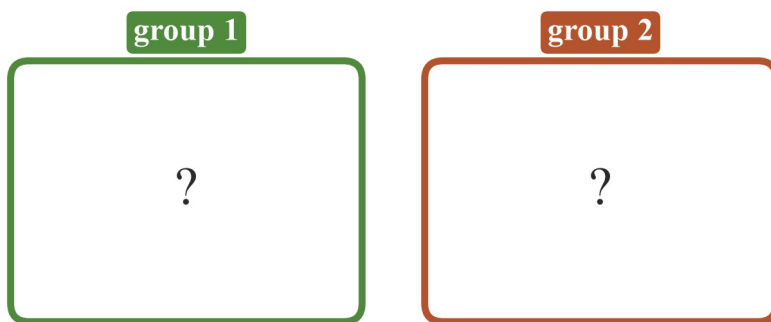
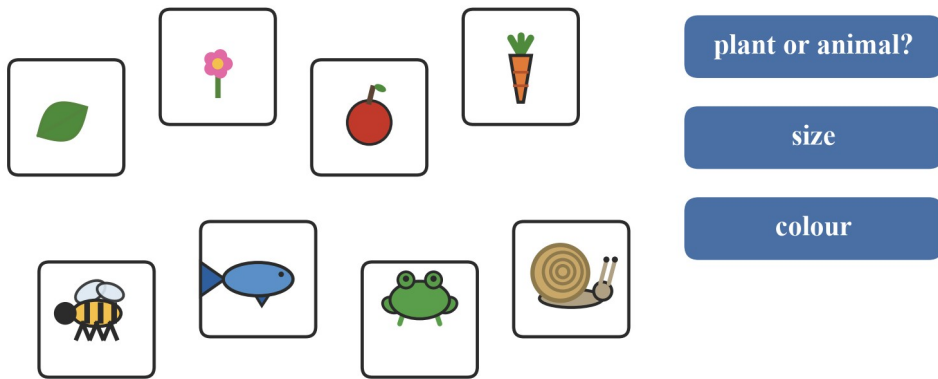
Look at a leaf or a snail up close. What small features can you see?

A child using a magnifying glass to look at leaves on a branch, and a camera close by.

- Name the two tools.
- Say why we use tools.

Q11. (Level 2) Sort the cards by plant or animal.

You choose the rule



Sort the eight cards into two groups. Then say your rule.

Eight picture cards: leaf, flower, apple, carrot, bee, fish, frog and snail. Below are two boxes for groups, and rule cards: plant or animal?, size and colour.

- Name the plant cards.
- Name the animal cards.
- Say one other rule you can use.

Q12. (Level 2) Draw one plant and one animal. Point to one feature of each and say the feature.

Answers

Q1. a. the fur of the kangaroo b. the leaves of the gum tree c. any of: fur, ears, a long tail.

Q2. a. the roots under the soil b. the flower c. the leaves.

Q3. a. the carrot b. the apple c. a leaf.

Q4. a. the emu b. the snail c. fur.

Q5. a. vertebrate b. invertebrate c. vertebrate.

Q6. a. any of: kangaroo, emu, blue-tongue lizard, frog, fish b. any of: bee, snail, worm, spider c. backbone or no backbone.

Q7. a. any of: two eyes, two ears, a mouth b. any other of them c. yes.

Q8. a. the 6 legs group b. the 2 legs group c. how many legs.

Q9. a. no legs b. has no backbone c. because the rule changes.

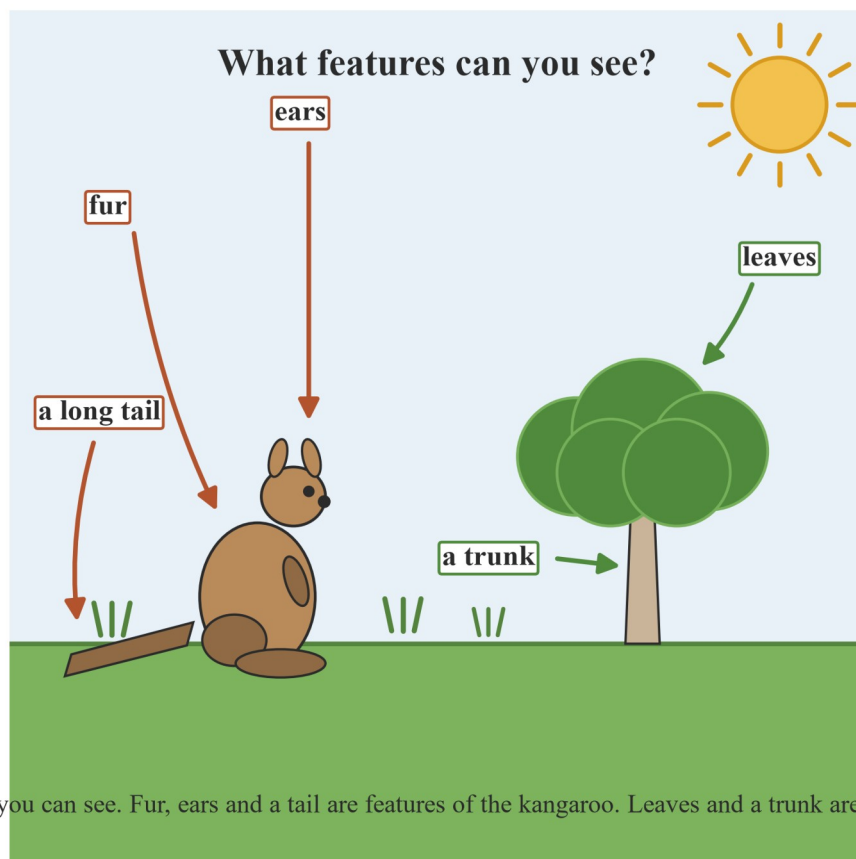
Q10. a. a magnifying glass and a camera b. they help us see small features.

Q11. a. leaf, flower, apple, carrot b. bee, fish, frog, snail c. any of: size, colour (any rule that works).

Q12. The drawing has one plant and one animal. The child points to one feature of each and says the feature.

Fully-worked solutions

Q1.



A feature is something you can see. Fur, ears and a tail are features of the kangaroo. Leaves and a trunk are features of the gum tree.

A kangaroo and a gum tree on grass with the sun in the sky. Labels point to the fur, ears and long tail of the kangaroo, and to the leaves and trunk of the gum tree.

- Point to the fur on the kangaroo's body.
- Point to the leaves on the gum tree.

- c. Say any feature of the kangaroo: fur, ears or a long tail.

∴ Fur, ears and a long tail are features of the kangaroo.

Q2.

- a. The roots are under the soil. Point to them.
- b. The flower makes seeds. Point to it.
- c. The leaves are flat and green.

∴ Roots under the soil, the flower, and the flat green leaves.

Q3.

- a. A carrot is a root. Point to the carrot.
- b. An apple is a fruit. Point to the apple.
- c. Lettuce is a leaf.

∴ Root: the carrot. Fruit: the apple. Lettuce is a leaf.

Q4.

- a. The emu has feathers. Point to the emu.
- b. The snail has a shell. Point to the snail.
- c. The kangaroo has fur.

∴ Feathers: the emu. A shell: the snail. The kangaroo's covering is fur.

Q5.

- a. A fish has a backbone, so it is a vertebrate.
- b. A worm has no backbone, so it is an invertebrate.
- c. A frog has a backbone, so it is a vertebrate.

∴ a. vertebrate b. invertebrate c. vertebrate.

Q6.

- a. Say any animal in the vertebrate box: kangaroo, emu, blue-tongue lizard, frog or fish.
- b. Say any animal in the invertebrate box: bee, snail, worm or spider.
- c. The rule is backbone or no backbone.

∴ Any vertebrate, any invertebrate, and the rule: backbone or no backbone.

Q7.

- a. Say one of: two eyes, two ears, a mouth.
- b. Say a different one of them.
- c. Yes. Humans are animals.

∴ You and the kangaroo have the same features, and yes, you are an animal.

Q8.

- a. The bee has 6 legs, so it goes in the 6 legs group.
- b. The emu has 2 legs, so it goes in the 2 legs group.
- c. The rule is how many legs.

∴ Bee: 6 legs. Emu: 2 legs. Rule: how many legs.

Q9.

- a. In Sort 1 the rule is legs. The snail has no legs, so it is in the no legs group.
- b. In Sort 2 the rule is backbone. The snail has no backbone, so it is in the has no backbone group.
- c. The models are the same, but the rule changes, so the groups change.

∴ No legs; has no backbone; the groups change because the rule changes.

Q10.

- a. The two tools are a magnifying glass and a camera.
- b. They make small things look big, so we can see more features.

∴ A magnifying glass and a camera; they help us see small features.

Q11.

- a. The plant cards are leaf, flower, apple and carrot.
- b. The animal cards are bee, fish, frog and snail.
- c. One more rule: size, or colour. Any rule that works is a good rule.

∴ Plants: leaf, flower, apple, carrot. Animals: bee, fish, frog, snail. Another rule: size or colour.

Q12.

Draw one plant, e.g. a gum tree, and one animal, e.g. a frog. Point to a leaf of the tree and say *leaf*. Point to the legs of the frog and say *legs*.

∴ Any drawing with one plant and one animal, and one named feature of each, is right.

Basic needs — air, water, food, shelter — and the places that meet them

This is read with the teacher. The teacher reads all the words. The child looks, says, points and does. The child does not need to read.

plants and animals have basic needs, including air, water, food and shelter; the places where they live meet those needs — VC2S2U02

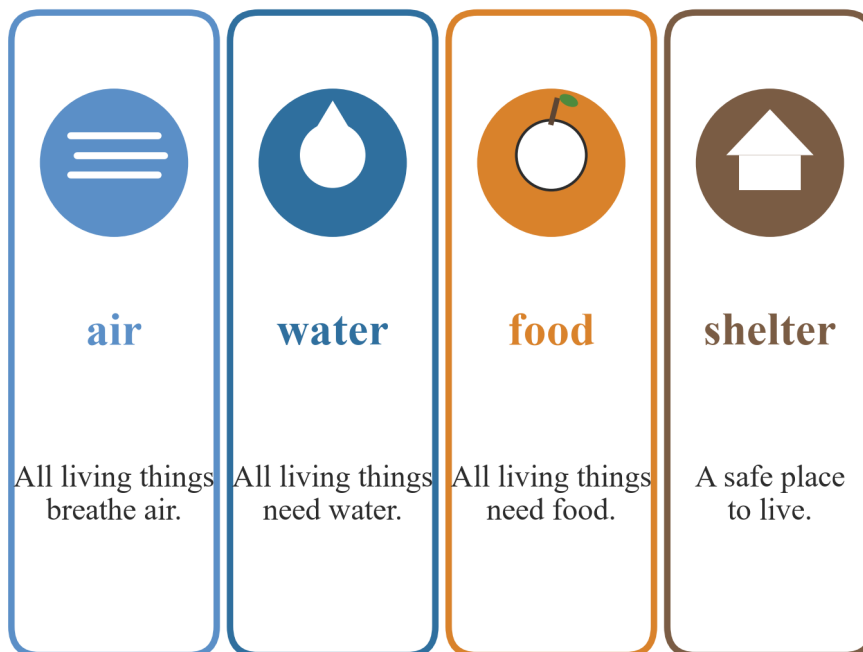
Theory

The four basic needs

A living thing is anything that is alive. You are a living thing. A kangaroo is a living thing. A gum tree is a living thing.

Every plant and animal has four basic needs. A **need** is something a living thing must have to stay alive.

Every plant and animal has four basic needs



These are the basic needs: the things a living thing must have to stay alive.

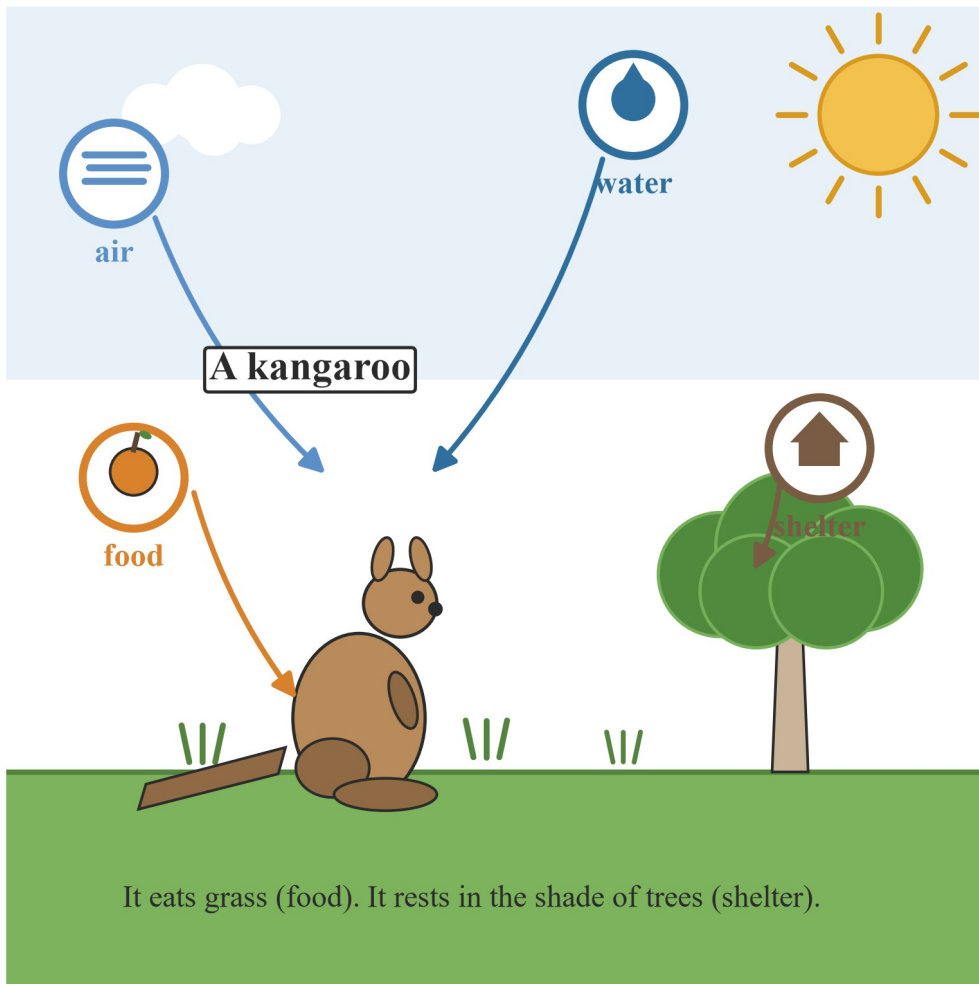
Four cards labelled air, water, food and shelter, each with a short line about it.

- **Air.** All living things breathe air.
- **Water.** All living things need water.
- **Food.** All living things need food.
- **Shelter.** A shelter is a safe place to live.

Point to each card and say the need. Say the four needs: air, water, food, shelter.

An animal and its needs: the kangaroo

The kangaroo lives in Victoria. It lives in grassy places with trees.



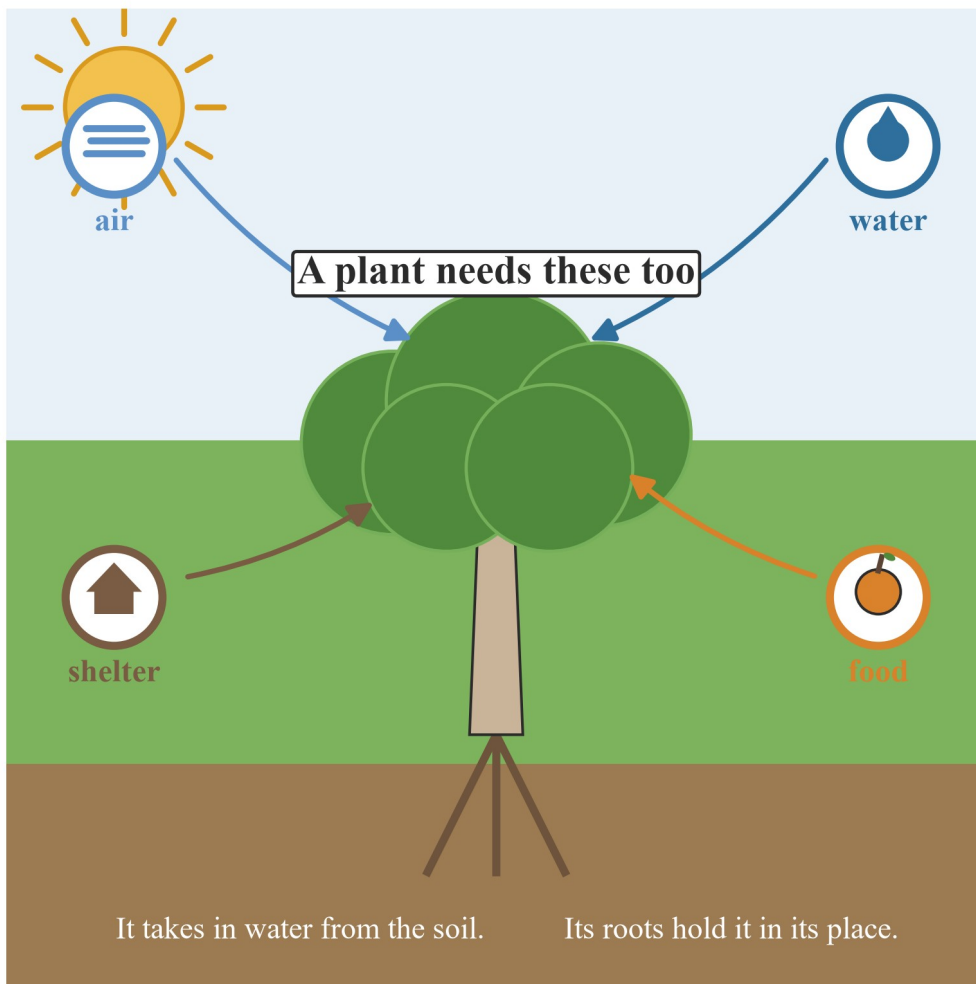
A kangaroo on grass with a gum tree, the sun and a cloud; four badges for air, water, food and shelter point to the kangaroo and the tree.

- It breathes **air**.
- It drinks **water**.
- It eats grass for **food**.
- It rests in the shade of the trees. The shade is its **shelter**.

The place where the kangaroo lives meets its needs. The grass is food. The water is drink. The trees give shade for shelter. The air is all around.

A plant and its needs

A plant is a living thing too. A plant has the same four needs.

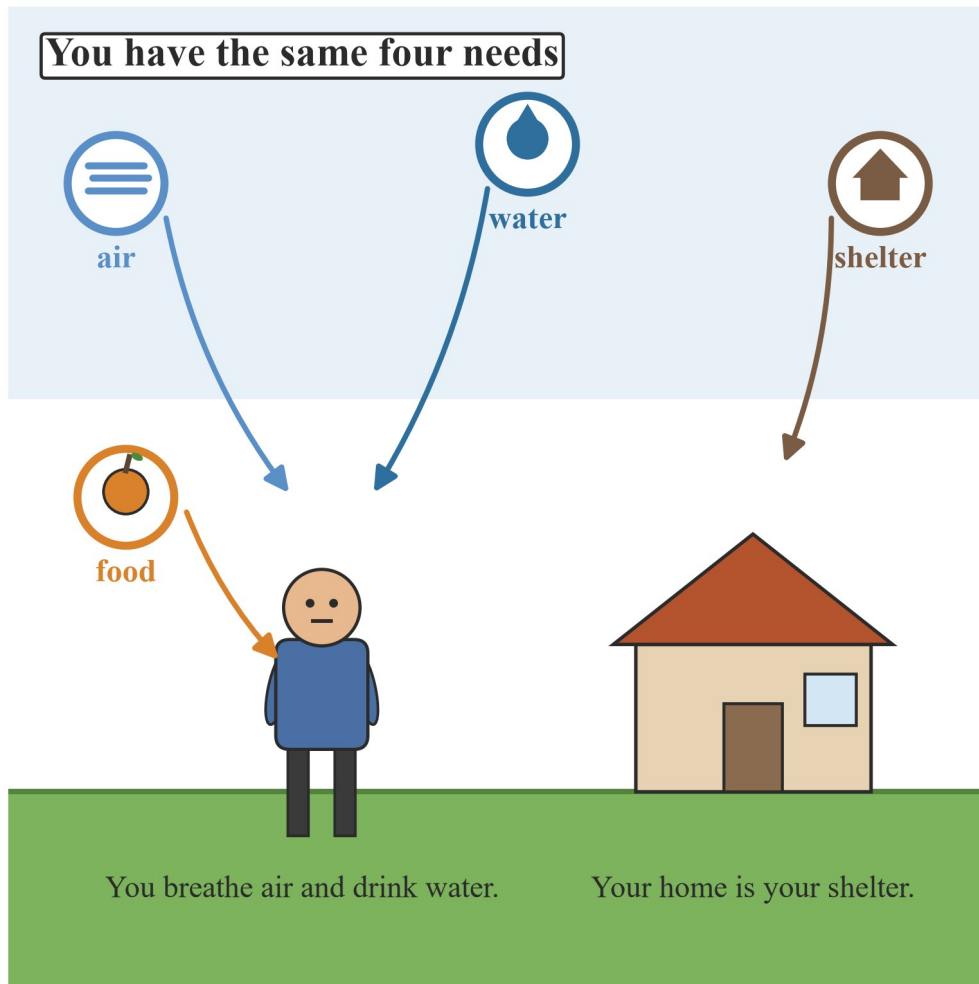


A gum tree with its roots in the soil; four badges for air, water, food and shelter point to the tree.

- A plant takes in **air**.
- A plant takes in **water** from the soil. The **soil** is the top part of the ground where plants grow.
- A plant makes its own **food**. It uses light to make its food.
- A plant has a place to grow. That place is its **shelter**. Its **roots** hold it in its place. The roots are the parts of a plant under the soil.

You have the same four needs

You are a living thing. You have the same four needs as the kangaroo and the gum tree.



A child and a house; badges for air, water, food and shelter point to the child and the house.

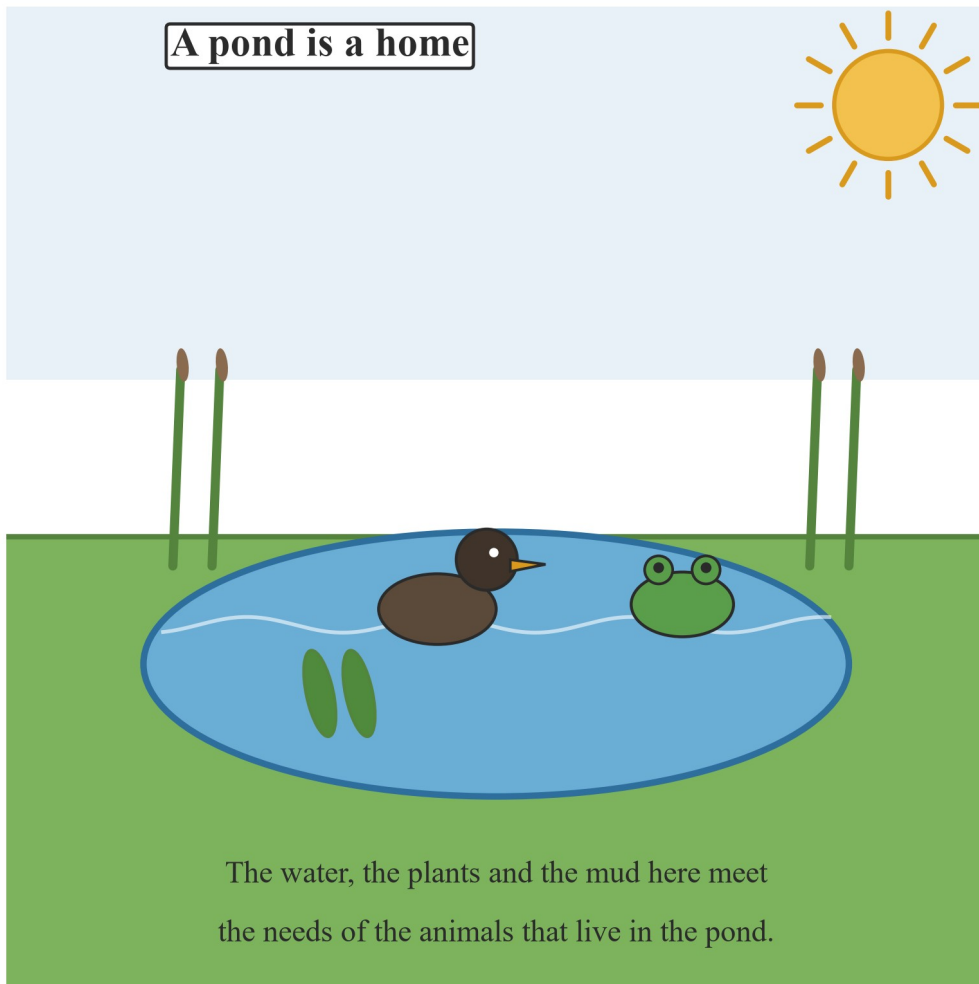
- You breathe **air**.
- You drink **water**.
- You eat **food**.
- Your home is your **shelter**.

Say one thing you do for each need. *I breathe air. I drink water. I eat food. I sleep in my home.*

Places that meet needs

Living things live in different places. A place gives a living thing what it needs.

A pond is a home.



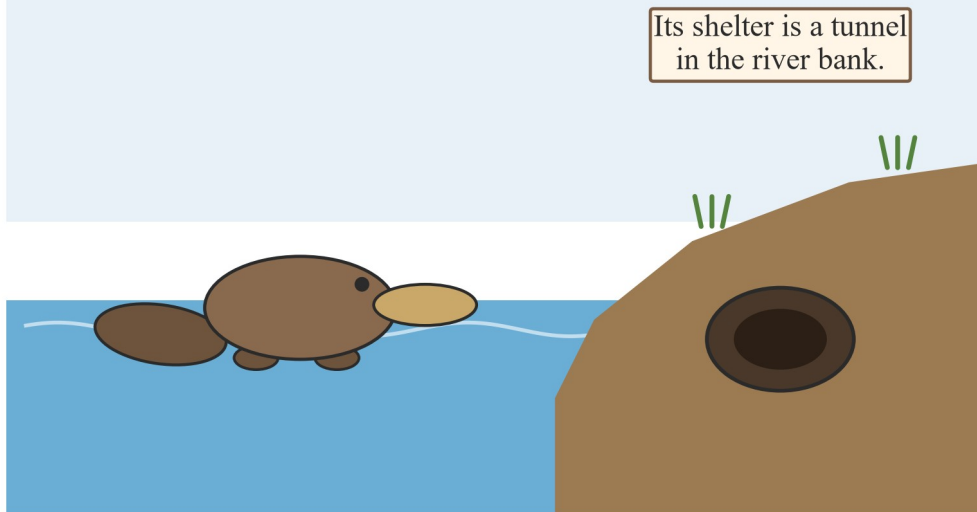
A pond with a duck and a frog, reeds at the edge and the sun in the sky.

A duck and a frog live at the pond. The pond gives them water. The plants at the pond are food and shelter. The water, the plants and the mud here meet the needs of the animals that live in the pond.

A river bank is a home.

The platypus lives by a river in Victoria. Its shelter is a tunnel in the river bank. The **bank** is the land next to the river. A **tunnel** is a long hole like a tube.

The platypus lives by a river



The river gives it water and food.

It comes up to breathe air.

A platypus swimming in a river next to a soil bank with a dark tunnel mouth in it.

The river gives the platypus water and food. It comes up to breathe air. The tunnel in the bank is its shelter.

A national park is a home.

A national park is a big place kept safe for plants and animals. Wilsons Promontory is a national park in Victoria. The local kangaroos and emus live there. The forests and grassy places meet their needs.

Source: Parks Victoria, Wilsons Promontory National Park, n.d. Retrieved 2026-08-20.

A garden is a home.

A garden can have native plants, like gum trees. Small animals live in a garden. The plants give them food and shelter. The Royal Botanic Gardens Victoria in Melbourne has many eucalypt trees. A **eucalypt** is a gum tree.

Source: Royal Botanic Gardens Victoria, Royal Botanic Gardens Victoria, n.d. Retrieved 2026-08-20.

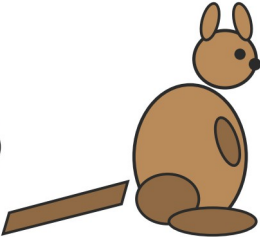
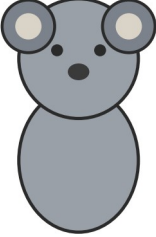
A zoo is a home.

A zoo is a place where people care for animals. Healesville Sanctuary is a zoo in Victoria. You can see a platypus, a koala and kangaroos there. People give the animals food and water, and a safe place to live.

Source: Zoos Victoria, Healesville Sanctuary, n.d. Retrieved 2026-08-20.

Match each animal to a place.

Living things live in different places

a pond	a garden	a national park	a zoo
?	?	?	?
			
duck	frog	kangaroo	koala

Draw a line from each animal to a place where it can live.

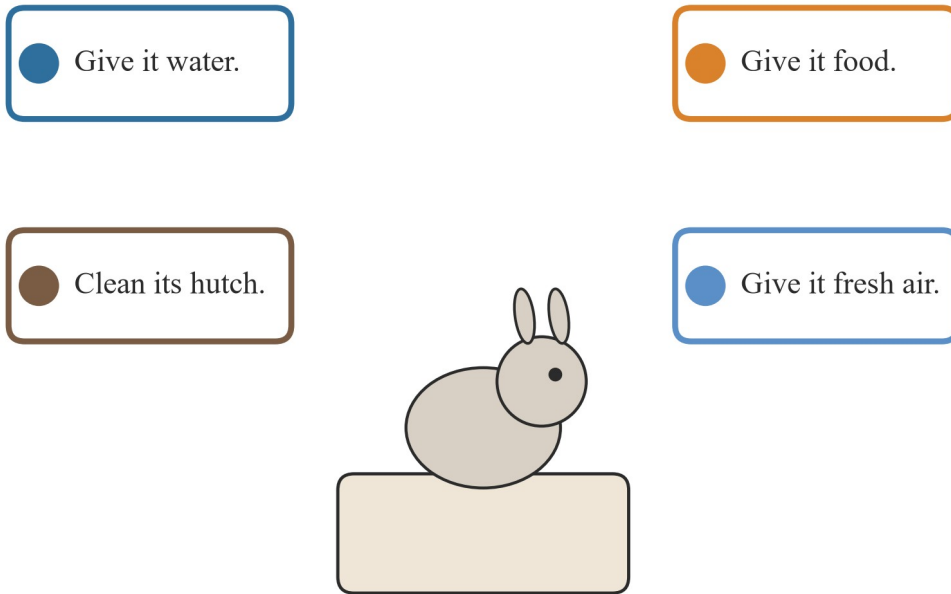
Four place boxes — a pond, a garden, a national park, a zoo — above a duck, a frog, a kangaroo and a koala.

Draw a line from each animal to a place where it can live. Say what the place gives the animal.

Caring for a pet

A pet needs you to meet its needs. When you care for a pet, you meet its needs.

Caring for a pet meets its needs



Each job you do meets one of the rabbit's needs.

A rabbit on its hutch with four boxes: give it water, give it food, clean its hutch, give it fresh air.

- **Give it water.** Water is a need.
- **Give it food.** Food is a need.
- **Clean its hutch.** The hutch is its shelter. A clean hutch is a safe place.
- **Give it fresh air.** Air is a need.

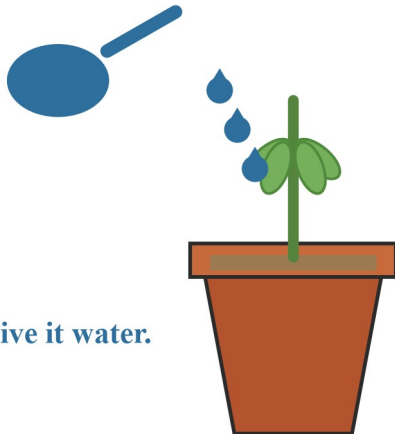
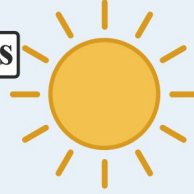
Each job you do meets one of the rabbit's needs. Say which need each job meets.

Wash your hands after you touch an animal or clean its hutch.

Caring for a plant

You can care for a plant at home or at school.

Caring for a plant meets its needs



The sun gives it light
to make its food.

The pot and soil give it
a place to grow.

You give it water.

A young plant in a pot; a watering can pours drops on it and the sun shines.

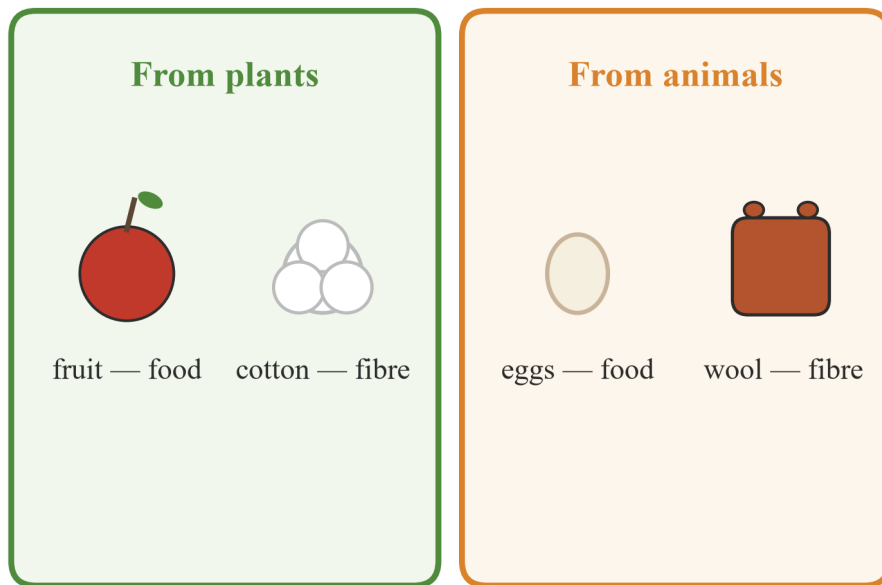
- You give it **water**.
- The Sun gives it light to make its **food**. Never look straight at the Sun.
- The pot and soil give it a place to grow. That place is its **shelter**.

Wash your hands after you touch soil.

Why caring matters: food and fibre

Plants and animals give us food and fibre. **Fibre** is what we use to make things like clothes and rope.

Plants and animals give us food and fibre



Food gives us energy. Fibre is used to make things like clothes.

We care for plants and animals so they keep giving us these things.

Two boxes. From plants: fruit is food, cotton is fibre. From animals: eggs are food, wool is fibre.

- Fruit and eggs are **food**. Food helps us grow and go.
- Cotton and wool are **fibre**. Cotton comes from a plant. Wool comes from sheep.
- Fibre is used to make things like clothes.

We care for plants and animals so they keep giving us these things. Farm sheep in Victoria give us wool for clothes.

Source: CSIRO, Livestock, n.d. Retrieved 2026-08-20.

Different living things, the same needs

You, a kangaroo and a gum tree are all living things. You all have the same four needs.

Different living things, the same needs

	air	water	food	shelter
 You (a human)	✓	✓	✓	✓
 Kangaroo	✓	✓	✓	✓
 Gum tree	✓	✓	✓	✓

All three need air, water, food and shelter.

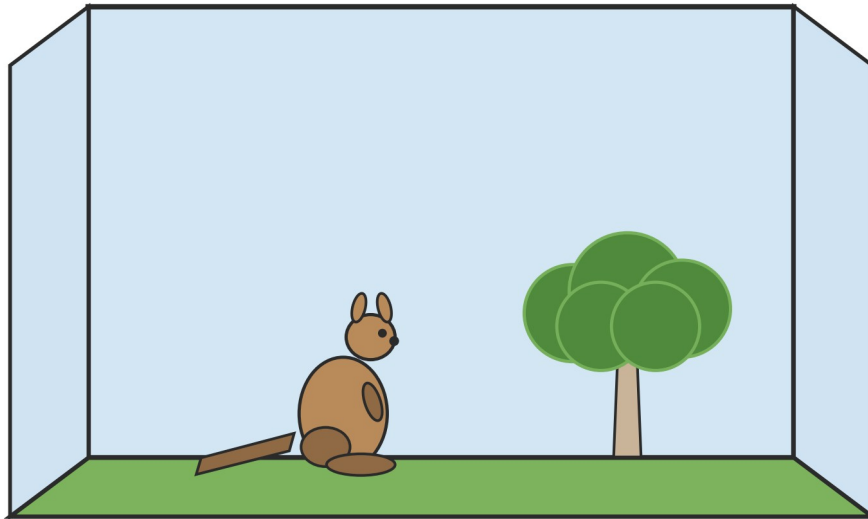
A table with rows for you, a kangaroo and a gum tree, and a tick in every column for air, water, food and shelter.

Point to each row. Say the living thing. Say its four needs.

Make a diorama

A **diorama** is a model of a place, made in a box. A **model** is a small copy of a thing.

Make a diorama: a model of a place where a living thing lives



A diorama of a grassy place, made in a box.

A box made into a diorama of a grassy place, with a kangaroo and a gum tree inside.

Make a diorama of a place where a living thing lives. Put in the things the living thing needs. Point to each thing and say which need it meets.

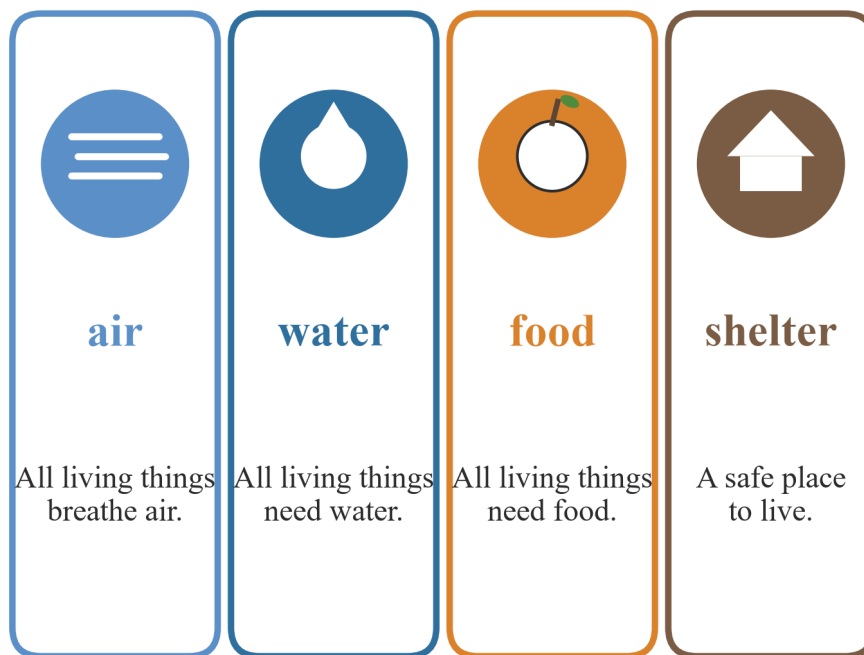
Worked examples

Do these with the teacher. Use what you can see here.

Worked example 1 — name the four basic needs

Look at the four cards.

Every plant and animal has four basic needs



These are the basic needs: the things a living thing must have to stay alive.

Four cards labelled air, water, food and shelter, each with a short line about it.

Point to each card and say the need on it.

Working

Say why

Point to the first card. Say *air*.

Air is a need. All living things breathe air.

Point to the second card. Say *water*.

Water is a need. All living things need water.

Point to the third card. Say *food*.

Food is a need. All living things need food.

Point to the fourth card. Say *shelter*.

Shelter is a need. It is a safe place to live.

∴ The four basic needs are air, water, food and shelter.

Worked example 2 — which need does the job meet?

You clean the rabbit's hutch. Which need does this meet?

Working

Say why

The hutch is where the rabbit lives.

A place to live is shelter.

A clean hutch is a safe place.

Shelter is a safe place to live.

The job is *clean its hutch*.

The need it meets is shelter.

∴ Cleaning the hutch meets the rabbit's need for shelter.

Worked example 3 — match an animal to a place

Match the frog to a place where it can live.

Living things live in different places

a pond

a garden

a national park

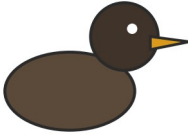
a zoo

?

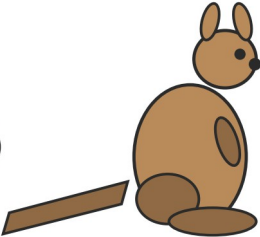
?

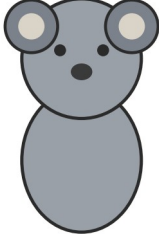
?

?









duck

frog

kangaroo

koala

Draw a line from each animal to a place where it can live.

Four place boxes — a pond, a garden, a national park, a zoo — above a duck, a frog, a kangaroo and a koala.

Working

A frog lives near water.
A pond is water with plants and mud.
Draw a line from the frog to a pond.

∴ The frog can live at a pond.

Worked example 4 — what meets the need?

A kangaroo lives at Wilsons Promontory National Park. What in the park meets the kangaroo’s need for food? What meets its need for shelter?

Working

The kangaroo eats grass.
The park has grassy places.
The kangaroo rests in the shade of trees.
The park has forests and trees.

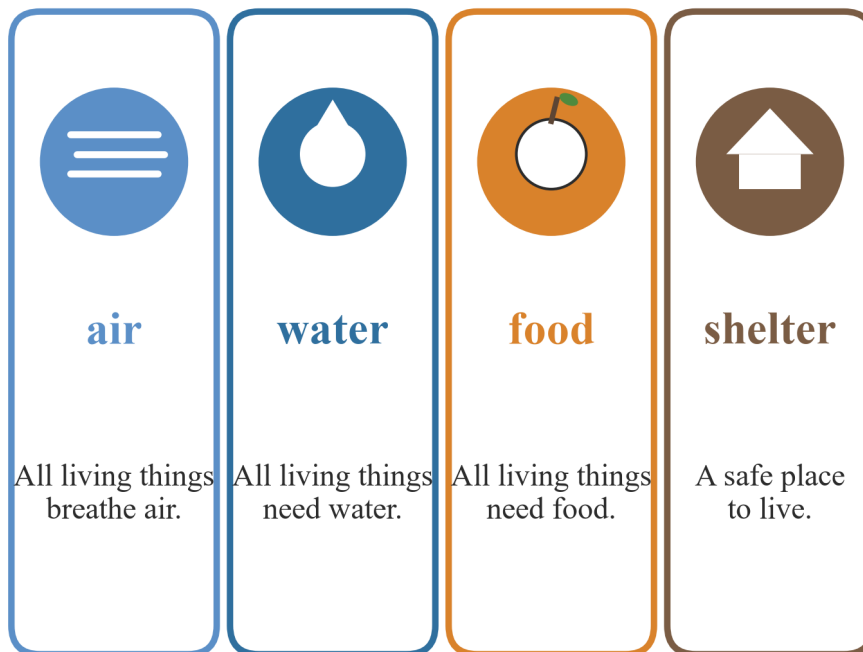
∴ The grass meets its need for food. The trees meet its need for shelter.

Practice questions

The teacher reads all the words. The child says or does the answer. The teacher puts the answer down.

Q1. (Foundation) Look at the four cards.

Every plant and animal has four basic needs



These are the basic needs: the things a living thing must have to stay alive.

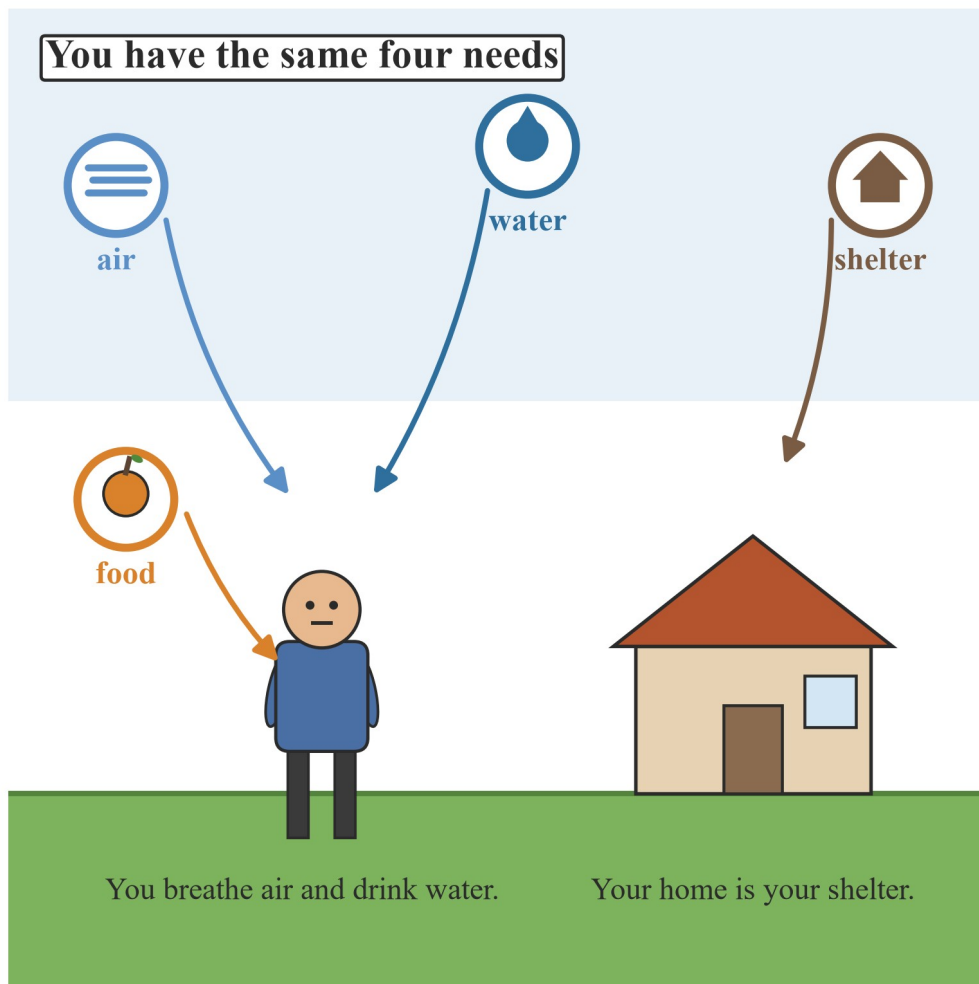
Four cards labelled air, water, food and shelter, each with a short line about it.

- Point to the card for water.
- Point to the card for shelter.
- Say the four needs.

Q2. (Foundation) The kangaroo drinks from a pond. Which need is this? Circle one.

air · water · food · shelter

Q3. (Foundation) Look at the child and the house.

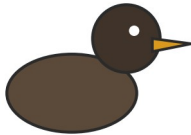
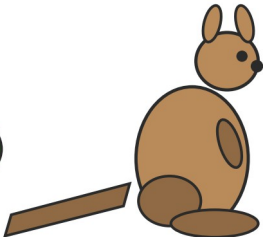
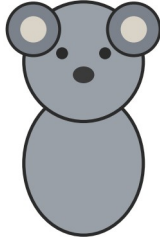


A child and a house; badges for air, water, food and shelter point to the child and the house.

- Point to the shelter in the picture.
- Say what you do for the need *water*.

Q4. *(Level 1)* Match each animal to a place where it can live.

Living things live in different places

a pond	a garden	a national park	a zoo
?	?	?	?
			
duck	frog	kangaroo	koala

Draw a line from each animal to a place where it can live.

Four place boxes — a pond, a garden, a national park, a zoo — above a duck, a frog, a kangaroo and a koala.

- The duck lives at ____
- The kangaroo lives at ____
- The koala lives at ____

Q5. (Level 1) Match each job to the need it meets. Say *water*, *food*, *air* or *shelter*.

- Give the rabbit water. ____
- Clean the rabbit's hutch. ____
- Give the rabbit food. ____
- Put the rabbit where there is fresh air. ____

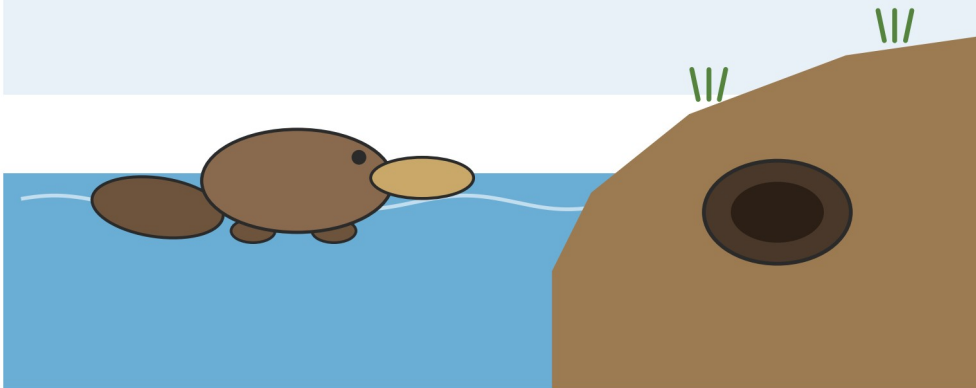
Q6. (Level 1) A plant takes in water. Where does the water come from? Circle one.

the soil · the sun · the pot

Q7. (Level 1) The platypus lives by a river.

The platypus lives by a river

Its shelter is a tunnel
in the river bank.



The river gives it water and food.

It comes up to breathe air.

A platypus swimming in a river next to a soil bank with a dark tunnel mouth in it.

- Point to its shelter in the picture.
- Say what the shelter is.

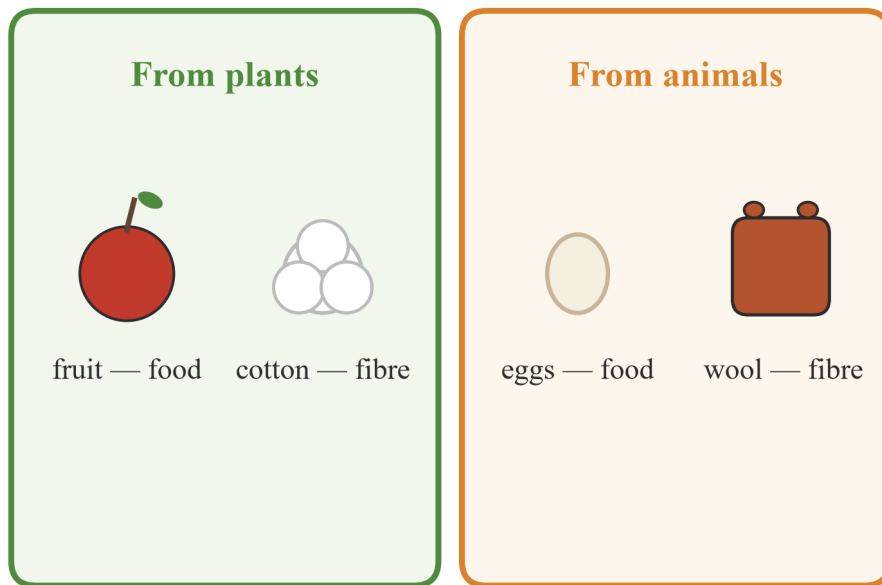
Q8. (Level 2) You and a kangaroo have the same needs.

- Say one need you both have.
- For that need, say where you get it.
- For that need, say where the kangaroo gets it.

Q9. (Level 2) A frog lives at a pond. Draw a pond for a frog. Put in water and plants. Point to the water. Point to the plants. Say which need the water meets.

Q10. (Level 2) Look at the food and fibre picture.

Plants and animals give us food and fibre



Food gives us energy. Fibre is used to make things like clothes.

We care for plants and animals so they keep giving us these things.

Two boxes. From plants: fruit is food, cotton is fibre. From animals: eggs are food, wool is fibre.

- Circle the things that are food.
- Circle the things that are fibre.
- Say why we care for farm sheep.

Q11. (Level 2) Make a diorama of a place where a frog lives.

- Point to the water in your diorama. Say which need it meets.
- Point to the plants in your diorama. Say which need they meet.

Q12. (Level 2) A zoo gives animals food and water, and a safe place to live. Which needs does the zoo meet? Say all of them.

Answers

Q1. a. the second card b. the fourth card c. air, water, food, shelter.

Q2. water.

Q3. a. the house b. *I drink water.* (any true saying)

Q4. a. a pond b. a national park c. a zoo (or a garden with eucalypts)

Q5. a. water b. shelter c. food d. air.

Q6. the soil.

Q7. a. the tunnel in the river bank b. *a tunnel in the river bank.*

Q8. a. any of the four, e.g. food b. e.g. *I eat food from my home.* c. e.g. *The kangaroo eats grass.*

Q9. The drawing has water and plants. The water meets the need *water*.

Q10. a. fruit, eggs b. cotton, wool c. They give us food and fibre (wool).

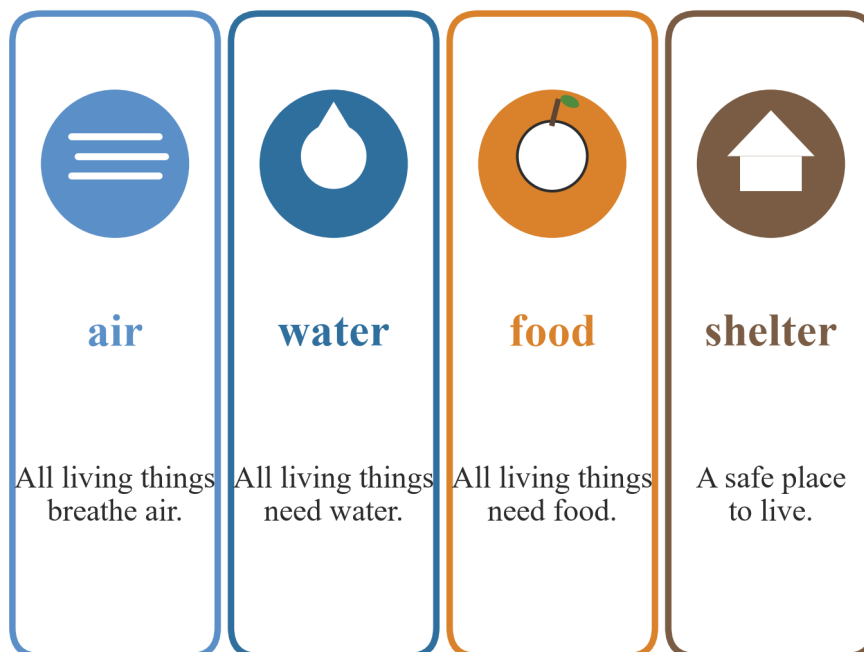
Q11. a. the water meets *water* b. the plants meet *food* and *shelter*.

Q12. food, water and shelter.

Fully-worked solutions

Q1.

Every plant and animal has four basic needs



These are the basic needs: the things a living thing must have to stay alive.

Four cards labelled *air*, *water*, *food* and *shelter*, each with a short line about it.

- Point to the card that says *water*. It is the second card.
- Point to the card that says *shelter*. It is the fourth card.

c. Say the needs in order: air, water, food, shelter.

∴ The four needs are air, water, food and shelter.

Q2.

The kangaroo drinks from a pond. Drink is water.

∴ The need is water.

Q3.

- a. A shelter is a safe place to live. The house is the shelter. Point to the house.
- b. The need is water. You drink water.

∴ The house is the shelter, and you meet the need *water* by drinking.

Q4.

- a. A duck lives near water. A pond is water. The duck lives at a pond.
- b. A kangaroo lives in grassy places with trees. A national park has grassy places and trees. The kangaroo lives at a national park.
- c. A koala is cared for in a zoo. The koala lives at a zoo.

∴ Duck → a pond. Kangaroo → a national park. Koala → a zoo.

Q5.

- a. Water is the need *water*.
- b. The hutch is the rabbit's shelter. The job meets *shelter*.
- c. Food is the need *food*.
- d. Fresh air is the need *air*.

∴ a. water b. shelter c. food d. air.

Q6.

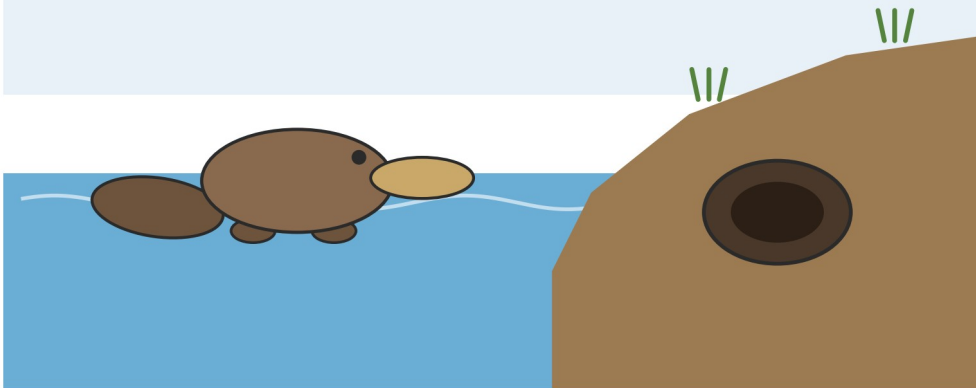
A plant takes in water with its roots. The roots are under the soil. The water comes from the soil.

∴ The water comes from the soil.

Q7.

The platypus lives by a river

Its shelter is a tunnel
in the river bank.



The river gives it water and food.

It comes up to breathe air.

A platypus swimming in a river next to a soil bank with a dark tunnel mouth in it.

- a. Point to the dark tunnel mouth in the bank.
- b. The shelter is a tunnel in the river bank.

∴ The platypus's shelter is a tunnel in the river bank.

Q8.

- a. You and a kangaroo both need food.
- b. You get food at your home. You eat meals.
- c. The kangaroo gets food in its place. It eats grass.

∴ Food is a need you both have; you eat meals, and the kangaroo eats grass.

Q9.

Draw a pond: a big pool of water with plants at the edge. Point to the water: it meets the need *water*. Point to the plants: they meet *food* and *shelter*.

∴ A pond for a frog has water and plants, and the water meets the need *water*.

Q10.

- a. Food is what we eat: fruit and eggs.
- b. Fibre is what we make things from: cotton and wool.
- c. We care for farm sheep so they keep giving us wool.

∴ Food: fruit, eggs. Fibre: cotton, wool. We care for sheep so they keep giving us wool.

Q11.

- a. Point to the water. A frog needs water, so the water meets *water*.
- b. Point to the plants. A frog hides in plants, and eats small animals that live on plants. The plants meet *shelter* and *food*.

∴ The water meets *water*, and the plants meet *shelter* and *food*.

Q12.

Food and water are named. A safe place to live is shelter.

∴ The zoo meets food, water and shelter.

External features that perform functions and enable survival

This is read with the teacher. The teacher reads all the words. The child looks, says, points and does. The child does not need to read.

plants and animals have external features that perform different functions to enable their survival; in plants these features include roots, stems, leaves, flowers, fruit, bulbs, trunks and branches while different features in animals enable them to move, breathe, eat and respond to their environment — VC2S2U03

Theory

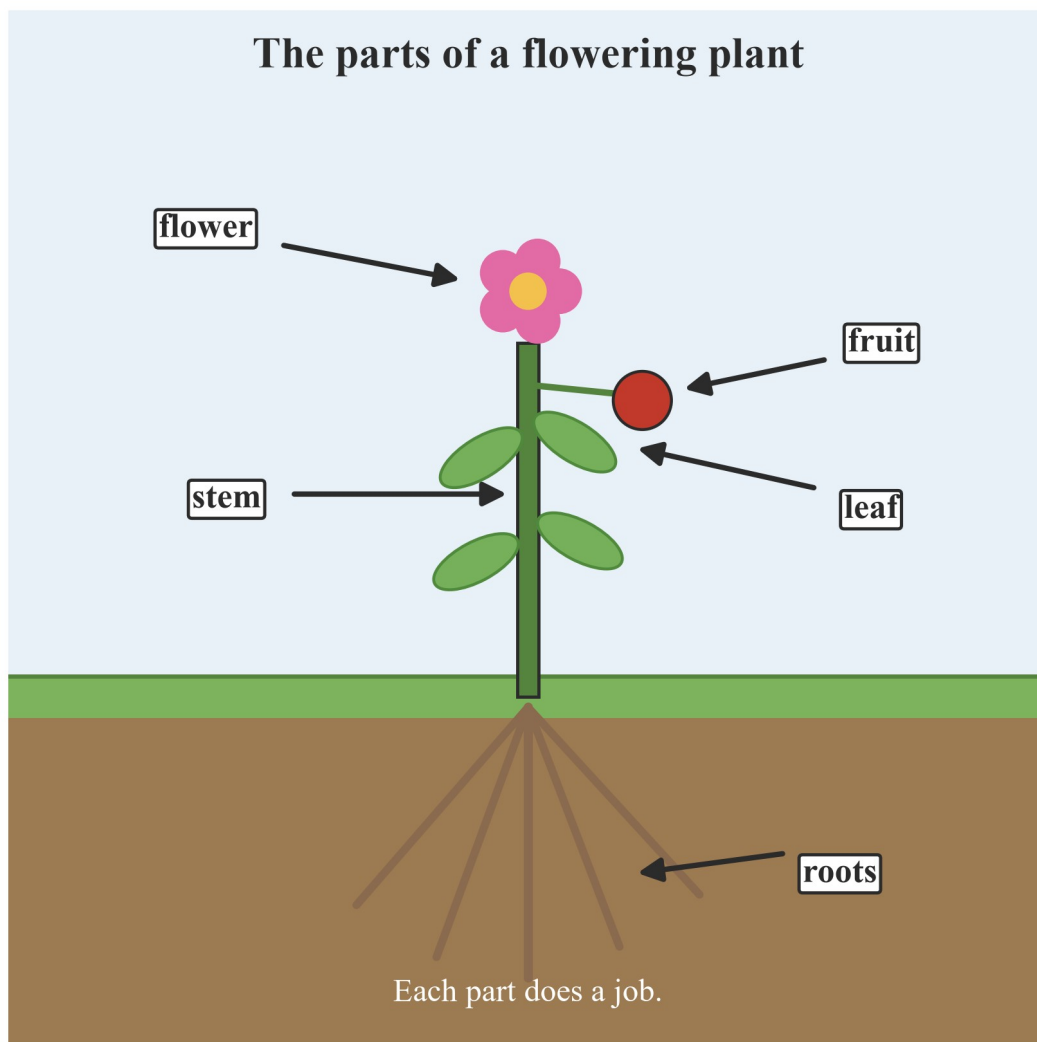
Features and jobs

A **feature** is a part of a living thing. You can see the features of a plant or an animal. **External** means on the outside. External features are the parts you can see on the outside of a living thing.

Each feature does a job. The job of a feature is its **function**. The jobs of the features help the living thing stay alive.

A plant and its parts

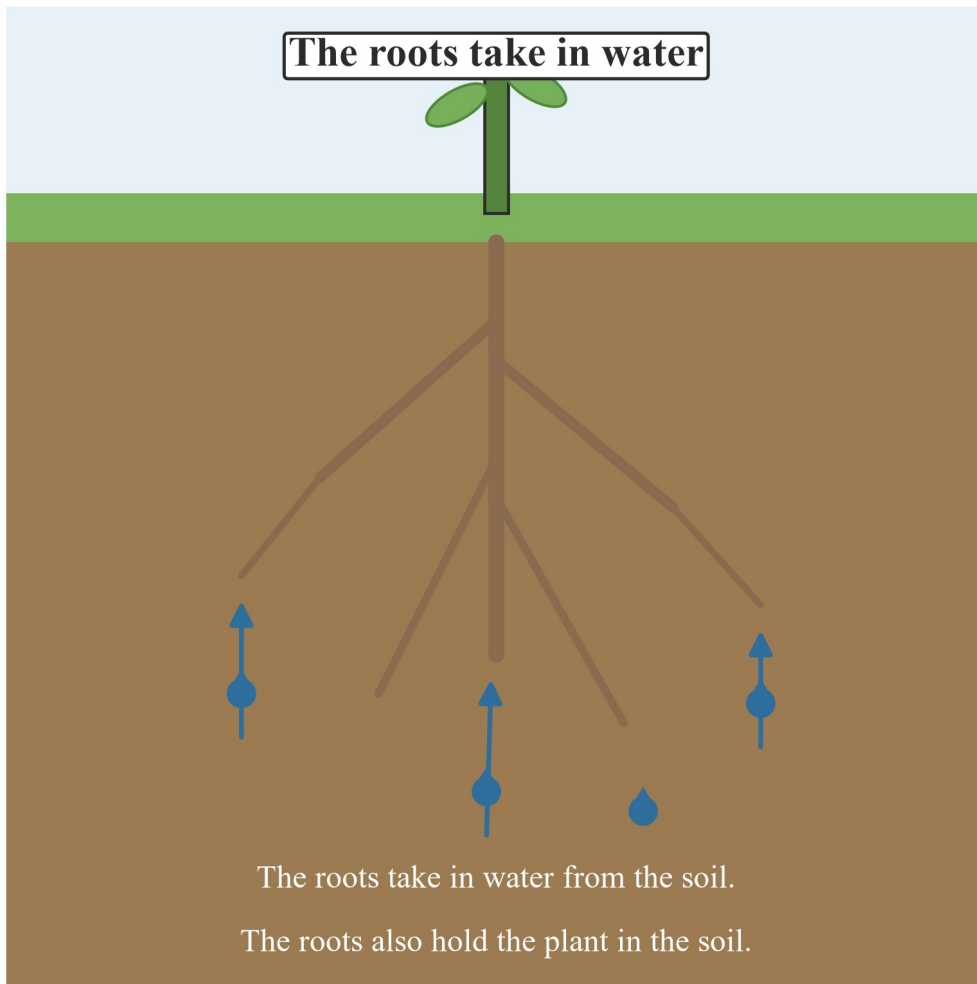
Look at this flowering plant. It has roots, a stem, leaves, a flower and fruit.



A flowering plant with the roots in the soil. The roots, stem, leaves, flower and fruit are labelled.

Each part does a job.

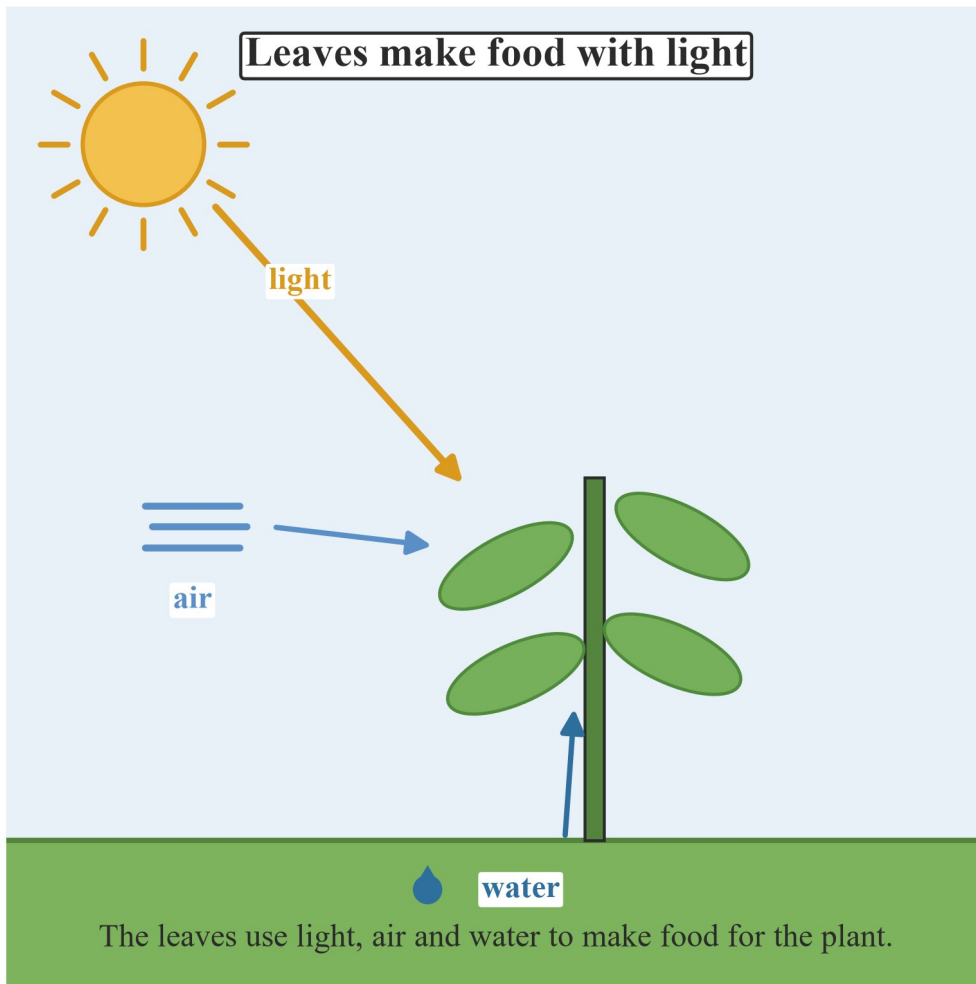
The roots take in water. The roots are under the soil. The **soil** is the top part of the ground where plants grow. The roots take in water from the soil. The roots also hold the plant in the soil.



Roots in the soil. Drops of water move into the roots.

The stem holds the plant up. The stem also moves water up from the roots to the leaves.

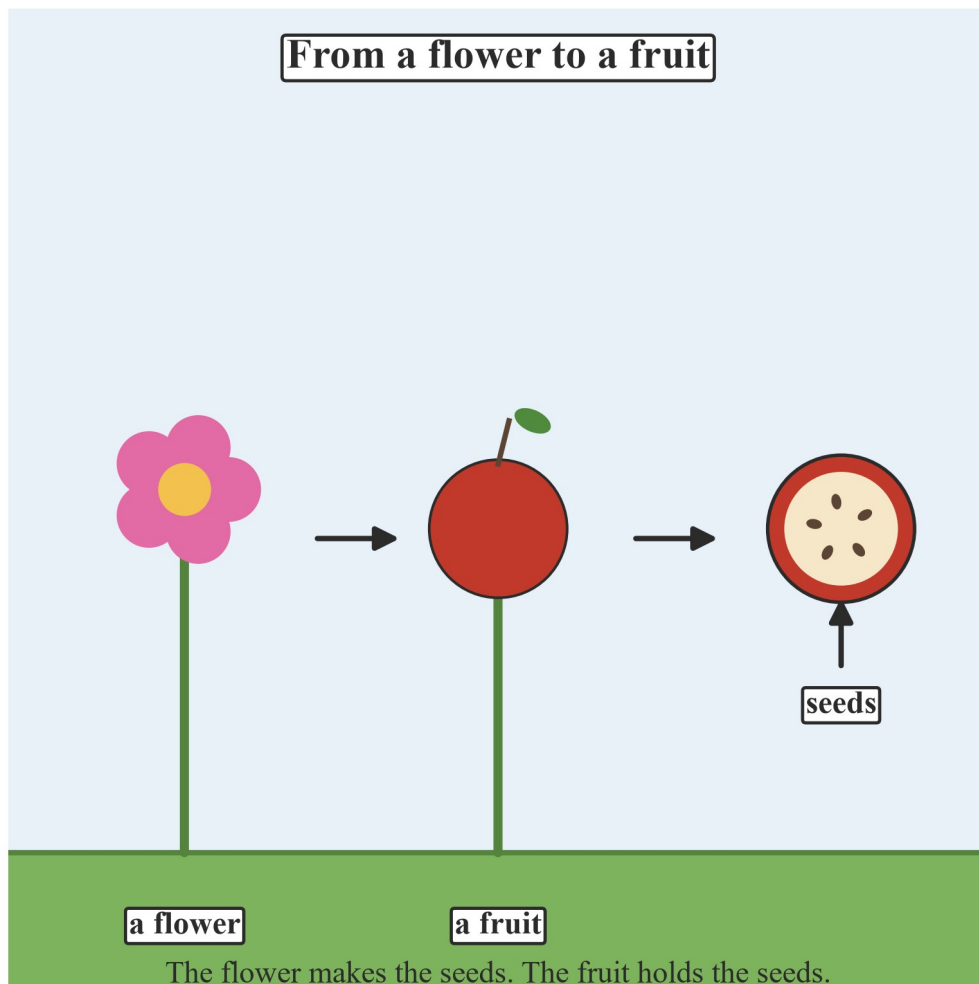
The leaves make food. The leaves use light, air and water to make food for the plant.



A plant with big leaves. Arrows show light, air and water going to the leaves.

The flower makes the seeds. Bees and other small animals can help the flower make seeds.

The fruit holds the seeds. Look at an apple. The seeds are inside the apple. The apple is the fruit of the apple tree.

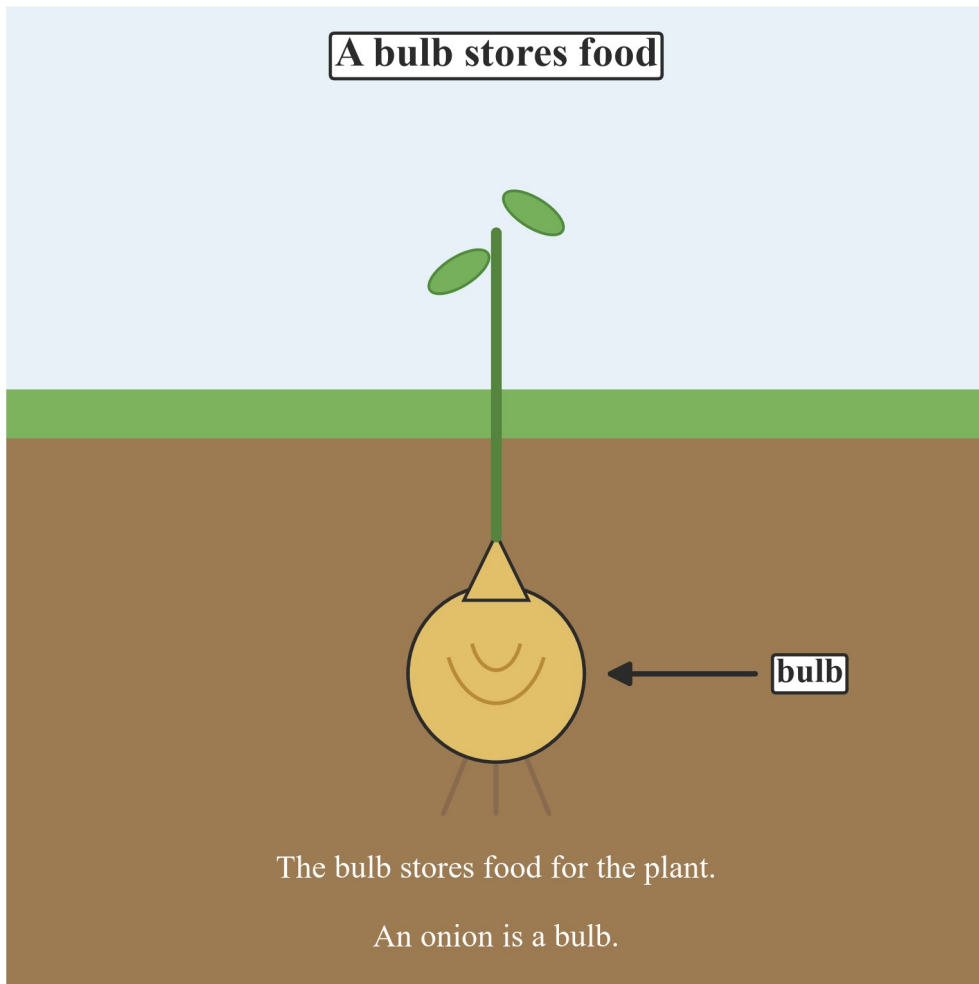


From left to right: a flower, then a fruit, then the fruit cut open to show the seeds inside.

Some plants have bulbs

Some plants have a **bulb**. A bulb is a part of the plant under the soil. The bulb stores food for the plant. The plant uses the food to grow.

An onion is a bulb.

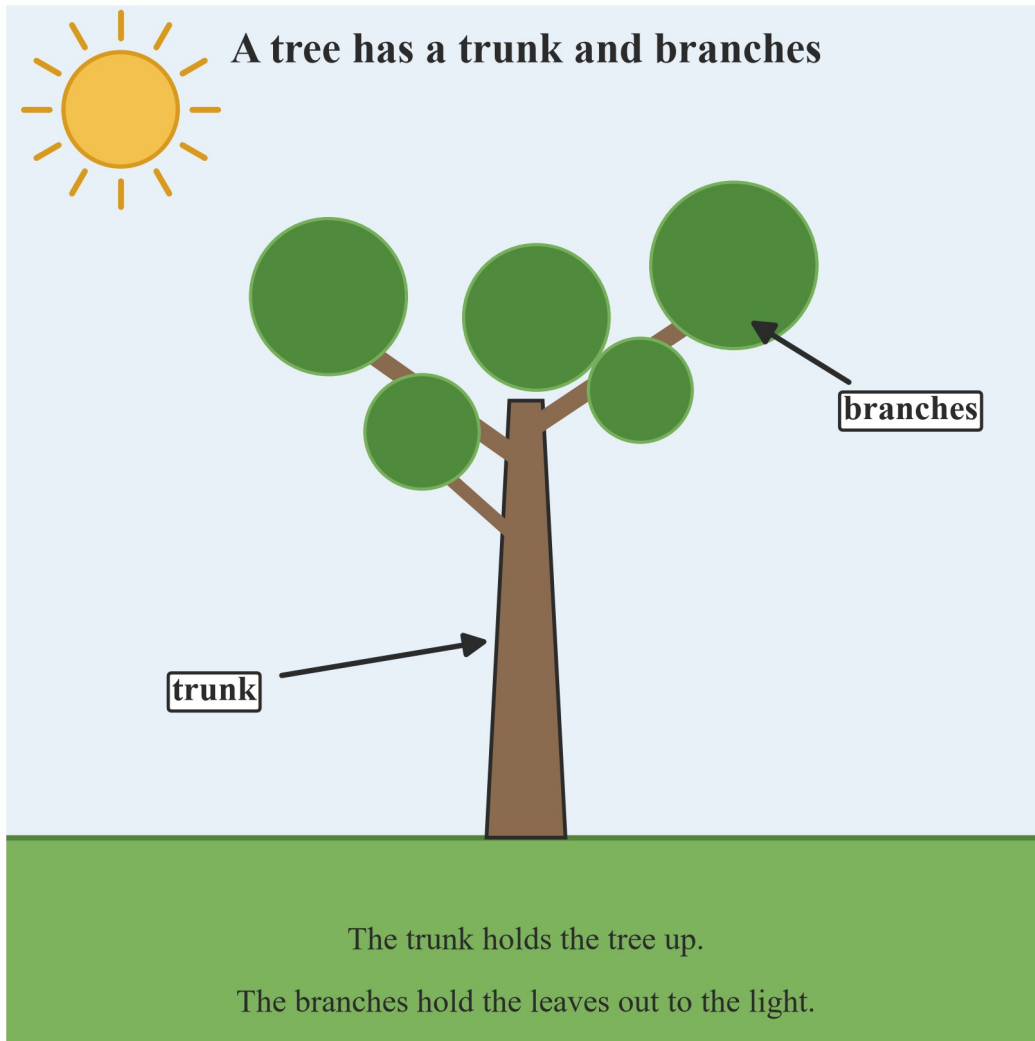


A bulb in the soil with a green shoot growing up out of the soil. The bulb is labelled.

Trees have trunks and branches

A tree is a big plant. The thick stem of a tree is its **trunk**. The trunk holds the tree up tall. The trunk moves water up from the roots.

The **branches** grow out from the trunk. The branches hold the leaves out to the light.



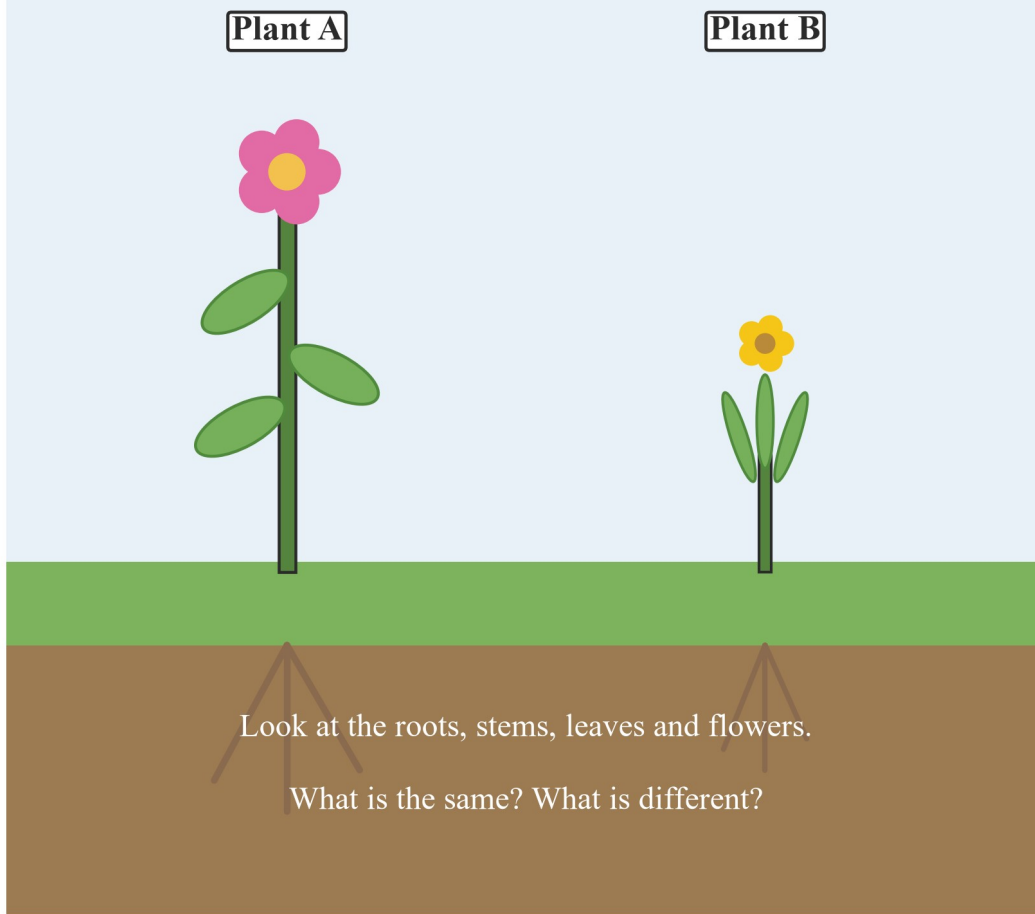
A tall tree. The trunk and the branches are labelled.

Look at two plants

To **compare** means to look at what is the same and what is different.

Look at these two plants. Compare the roots, the stems, the leaves and the flowers.

Compare two plants



Two plants side by side, labelled Plant A and Plant B. Plant A is tall with big leaves and a big pink flower. Plant B is short with thin leaves and a small yellow flower.

Say one thing that is the same. Both plants have roots, stems, leaves and flowers.

Say one thing that is different. Plant A is tall. Plant B is short. The leaves of Plant A are big. The leaves of Plant B are thin.

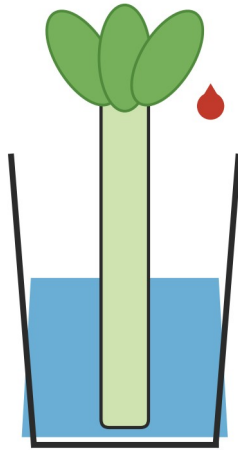
Two plants can look different. But both plants have the same parts, and each part does a job.

Watch water move up a stem

You can watch water move up a stem. You need a stick of celery with leaves, a glass, water and food colouring. The teacher cuts the celery.

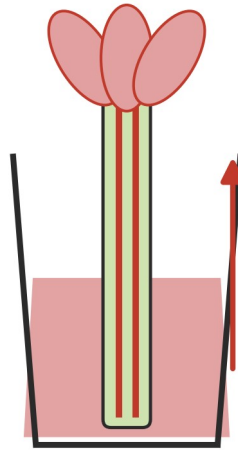
Watch water move up a stem

Day 1



water with food colouring

Day 2



The coloured water moves up the stem into the leaves.

Two glasses with water and food colouring. A celery stick stands in each glass. On Day 1 the leaves are green. On Day 2 the leaves have changed colour.

1. Put water in the glass.
2. Add food colouring to the water. The water changes colour.
3. Put the celery in the glass. The leaves are up the top.
4. Wait one day. Then look at the leaves.

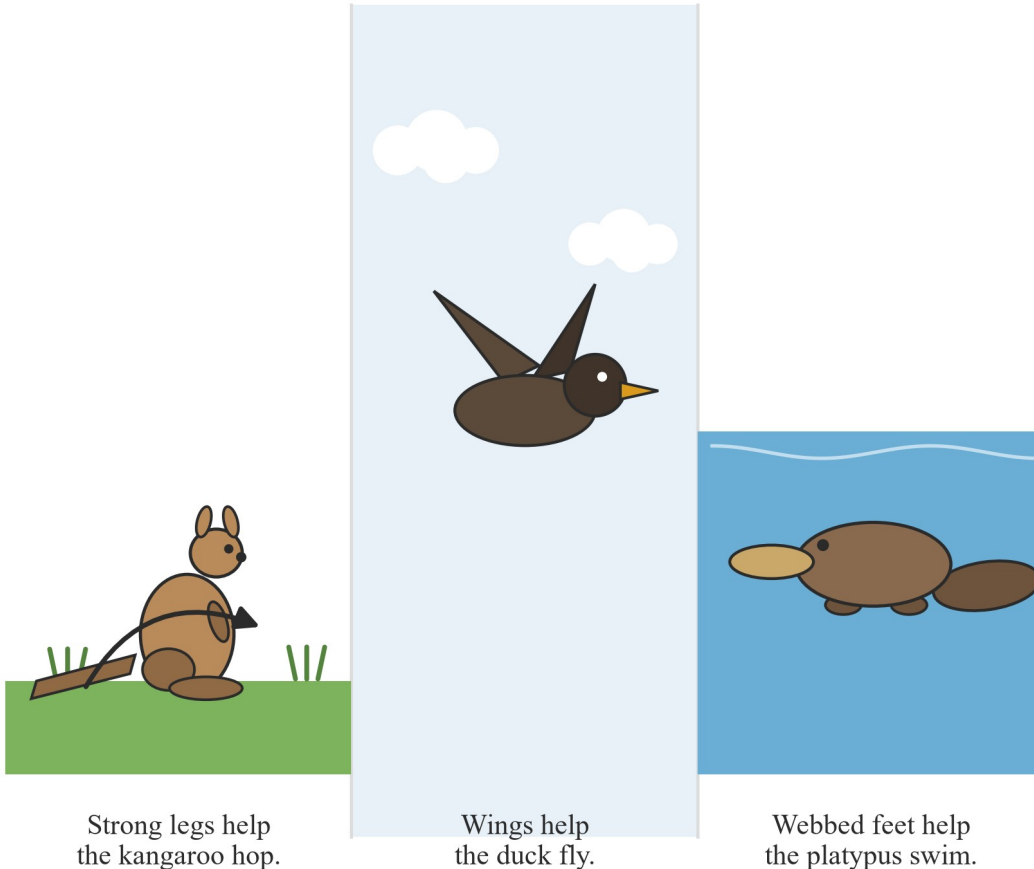
What do you see? The leaves change colour. The coloured water moved up the stem and into the leaves. The stem moves water up.

Be careful. Do not drink the coloured water. Wash your hands after you touch the food colouring. Food colouring can get on your skin and your clothes.

Features that help animals move

Animals have features that help them move.

Features that help animals move



Strong legs help
the kangaroo hop.

Wings help
the duck fly.

Webbed feet help
the platypus swim.

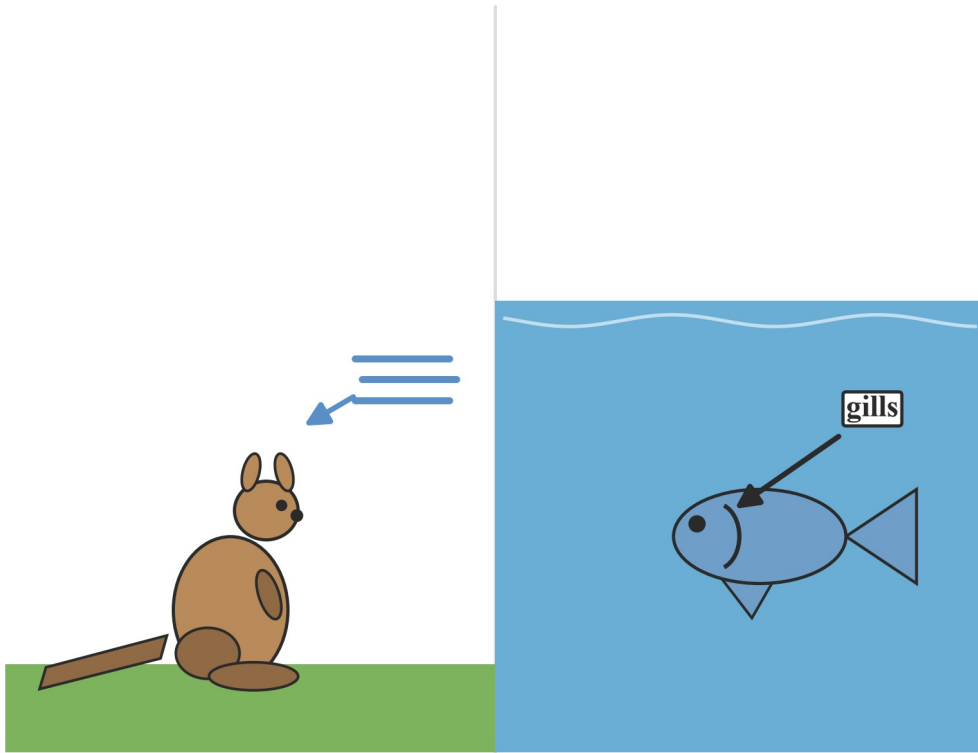
Three pictures. A kangaroo hops on its strong legs. A duck flies with its wings. A platypus swims in water with its webbed feet.

- The kangaroo has strong legs. Its legs help it hop. Its tail helps it stand up.
- The duck has wings. Its wings help it fly.
- The platypus has **webbed** feet. Webbed feet have skin between the toes. The webbed feet help the platypus swim.

Features that help animals breathe

Animals have features that help them breathe.

Features that help animals breathe



The kangaroo breathes air. It uses lungs. The fish breathes under water. It uses gills.

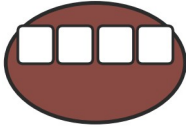
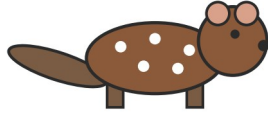
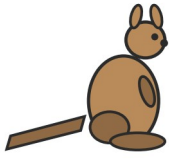
Two pictures. A kangaroo breathes air with its lungs. A fish breathes under water with its gills. The gills are labelled.

- The kangaroo breathes air. It uses **lungs**. The lungs are inside the body. They take the air in.
- The fish lives under water. It breathes with **gills**. The gills take air from the water.
- The platypus lives in the water, but it breathes air too. It comes up out of the water to breathe.

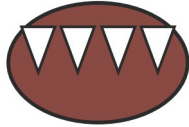
Teeth match the food

Animals eat different food. Their teeth match the food they eat. The food an animal eats is its diet.

Teeth match the food



flat teeth



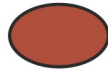
sharp teeth



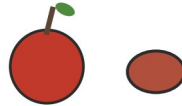
both kinds of teeth



eats plants



eats meat



eats plants and meat

herbivore

carnivore

omnivore

Three animals and their teeth. The kangaroo has flat teeth and eats plants. The tiger quoll has sharp teeth and eats meat. The child has both kinds of teeth and eats plants and meat.

The kangaroo eats grass and other plants. It has flat teeth. Flat teeth rub the plants and make them small. An animal that eats plants is a **herbivore**.

The tiger quoll eats meat. The tiger quoll is a small animal with soft fur and a long tail. It lives in the bush in Victoria. It has sharp teeth. Sharp teeth cut the meat. An animal that eats meat is a **carnivore**.

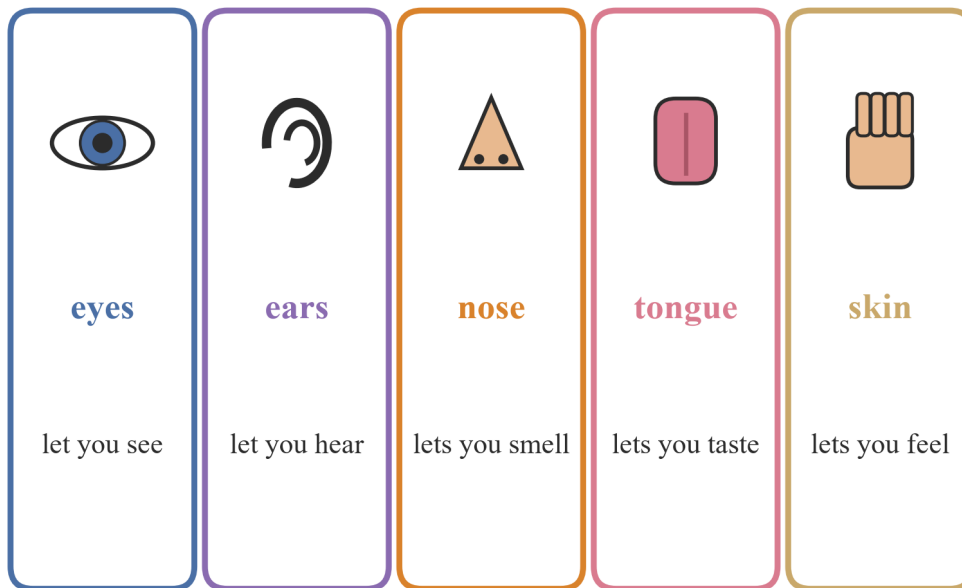
Source: Museums Victoria, Tiger Quoll, n.d. Retrieved 2026-08-20.

You eat plants and meat. You have both kinds of teeth. The flat teeth rub your food. The sharp teeth cut your food. An animal that eats plants and meat is an **omnivore**.

Sense organs help animals respond

Living things respond to what is happening around them. You respond with your five sense organs. A sense organ finds out about what is around you.

Your five sense organs



Your sense organs detect what is happening around you.

Five cards: the eyes let you see, the ears let you hear, the nose lets you smell, the tongue lets you taste, and the skin lets you feel.

- The **eyes** detect light. You see with your eyes.
- The **ears** detect sound. You hear with your ears.
- The **nose** can detect smells. You smell with your nose.
- The **tongue** tastes your food. You taste with your tongue.
- The **skin** feels touch. You feel with your skin.

In science, we never taste a thing to find out what it is. We only taste food that is safe to eat.

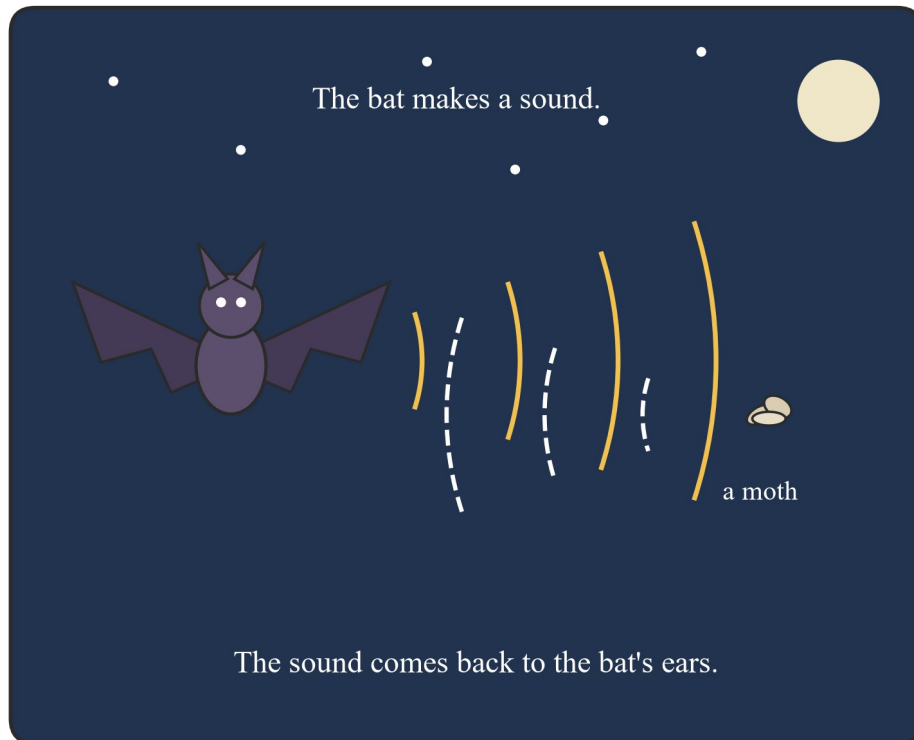
Never look straight at the Sun. The Sun can hurt your eyes.

The bat hears its way

A bat flies at night. It is dark, so the bat cannot see well. The bat makes a very small sound. The sound goes out and comes back to the bat's ears. The bat hears where things are. This helps the bat find its food in the dark.

This is called **echolocation**. Echolocation means finding things with sound. Bats live in Victoria.

The bat finds things with sound



This is called echolocation.

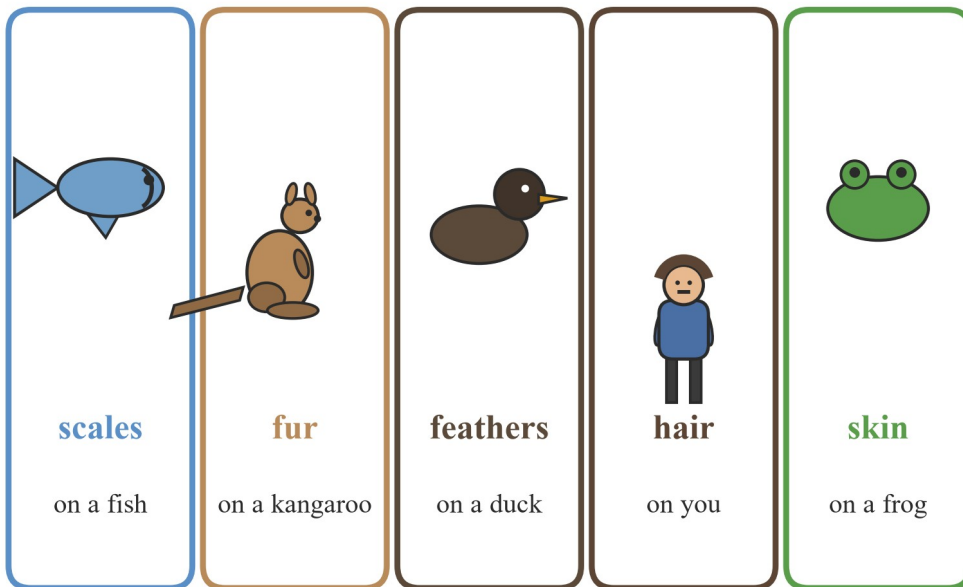
A bat flying at night. Lines show the sound going out from the bat and coming back from a moth.

Source: Museums Victoria, Bats, n.d. Retrieved 2026-08-20.

Body coverings and tails

The outside of an animal has a covering. Different animals have different coverings.

Body coverings



A covering goes on the outside of the body.
It helps keep the animal warm and safe.

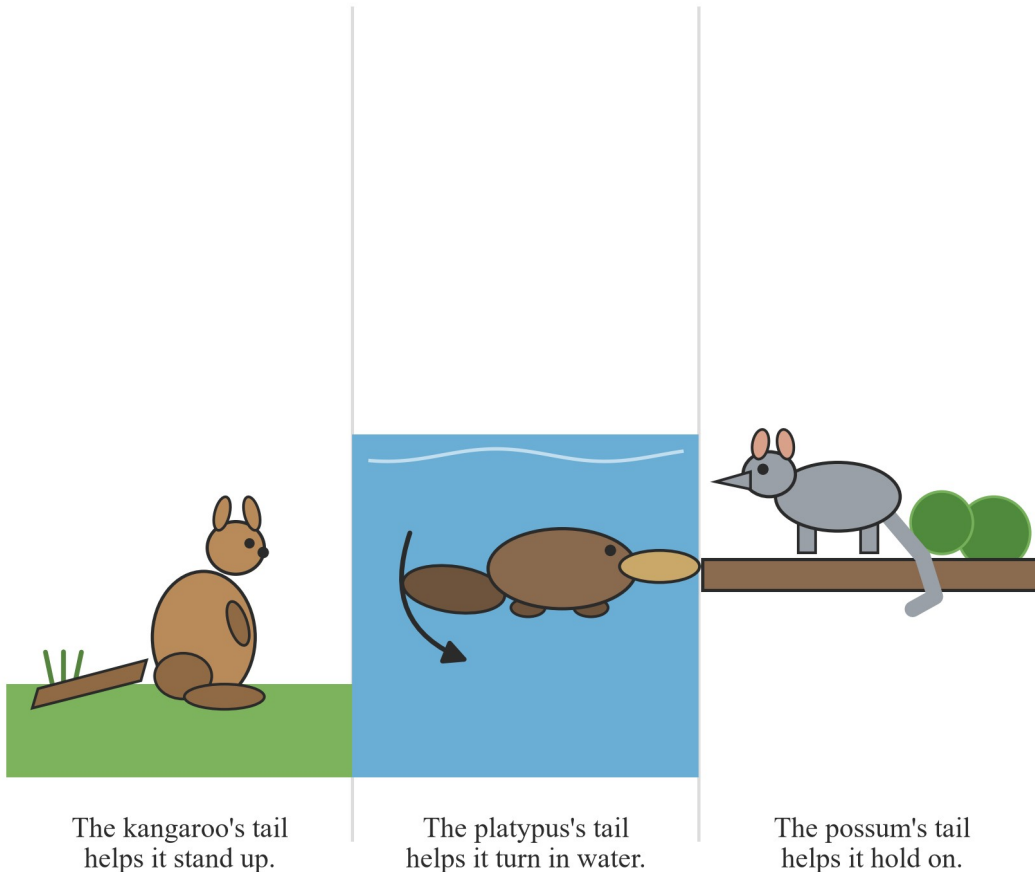
Five cards: scales on a fish, fur on a kangaroo, feathers on a duck, hair on a child, and skin on a frog.

- Scales cover a fish.
- Fur covers a kangaroo.
- Feathers cover a duck. Feathers are the soft things that cover a bird.
- Hair covers your head.
- Skin covers a frog.

A covering helps keep the animal warm and safe.

Tails do different jobs too.

Tails do different jobs



Three pictures. A kangaroo stands up with its tail on the ground. A platypus turns in the water with its tail. A possum holds on to a branch with its tail.

- The kangaroo's tail helps it stand up.
- The platypus's tail helps it turn in the water.
- The possum's tail helps it hold on to a branch. The possum lives in trees.

Source: Museums Victoria, Common Brushtail Possum, n.d. Retrieved 2026-08-20.

Features help living things stay alive

Every feature does a job. The roots take in water. The wings help the duck fly. The teeth help the animal eat. The sense organs help the animal find out what is around it.

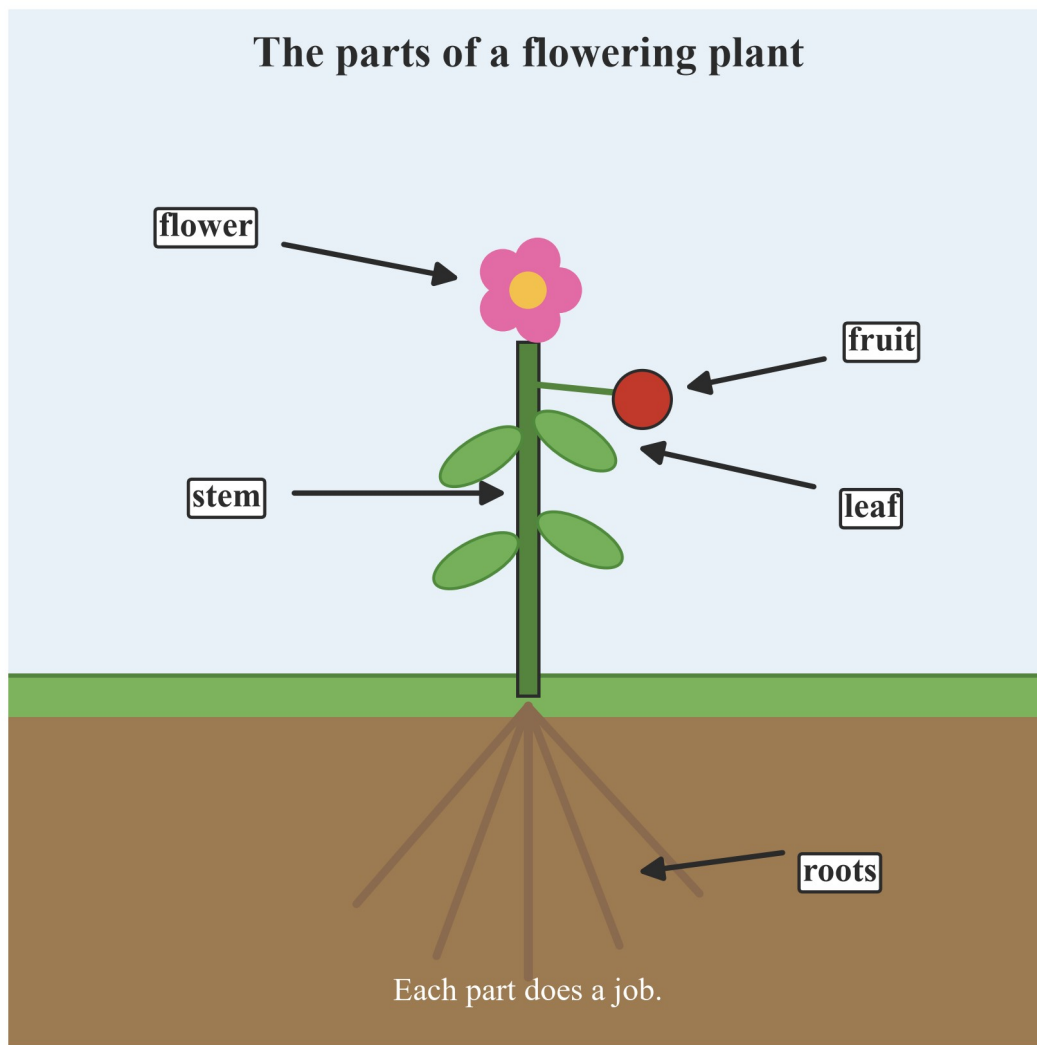
These jobs help the living thing stay alive. That is what the features are for.

Worked examples

Do these with the teacher. Use what you can see here.

Worked example 1 — which part takes in water?

Look at the flowering plant.



A flowering plant with the roots in the soil. The roots, stem, leaves, flower and fruit are labelled.

Which part of the plant takes in water?

Working

The water is in the soil.

The part of the plant in the soil is the roots.

The roots take in water.

∴ The roots take in water.

Say why

Plants take in water from the soil.

The roots are under the soil.

Taking in water is the job of the roots.

Worked example 2 — why did the celery leaves change colour?

A stick of celery stands in water with food colouring. The next day, the leaves have changed colour. Why?

Working

The water has food colouring in it.

The stem moves water up.

The coloured water moved up the stem into the leaves.

∴ The leaves changed colour because the stem moved the coloured water up.

Say why

The water changed colour.

The stem moves water from the roots to the leaves.

That is why the leaves changed colour.

Worked example 3 — what do the kangaroo's teeth tell us?

The kangaroo has flat teeth. What does it eat?

Working

The kangaroo's teeth are flat.
The kangaroo eats grass and other plants.
An animal that eats plants is a herbivore.

∴ The kangaroo eats plants. It is a herbivore.

Say why

Flat teeth rub plants and make them small.
Its teeth match its food.
That is the word for it.

Worked example 4 — match the feature to its job

Match the duck's wings to their job.

Match the feature to its job

roots	?	keeps it warm
wings	?	takes in water
gills	?	detect light
eyes	?	helps it fly
fur	?	takes air from the water

Draw a line from each feature to its job.

Five features on the left and five jobs on the right, ready to match with lines.

Working

Wings are a feature of the duck.
The duck flies.
The wings help the duck fly.

Say why

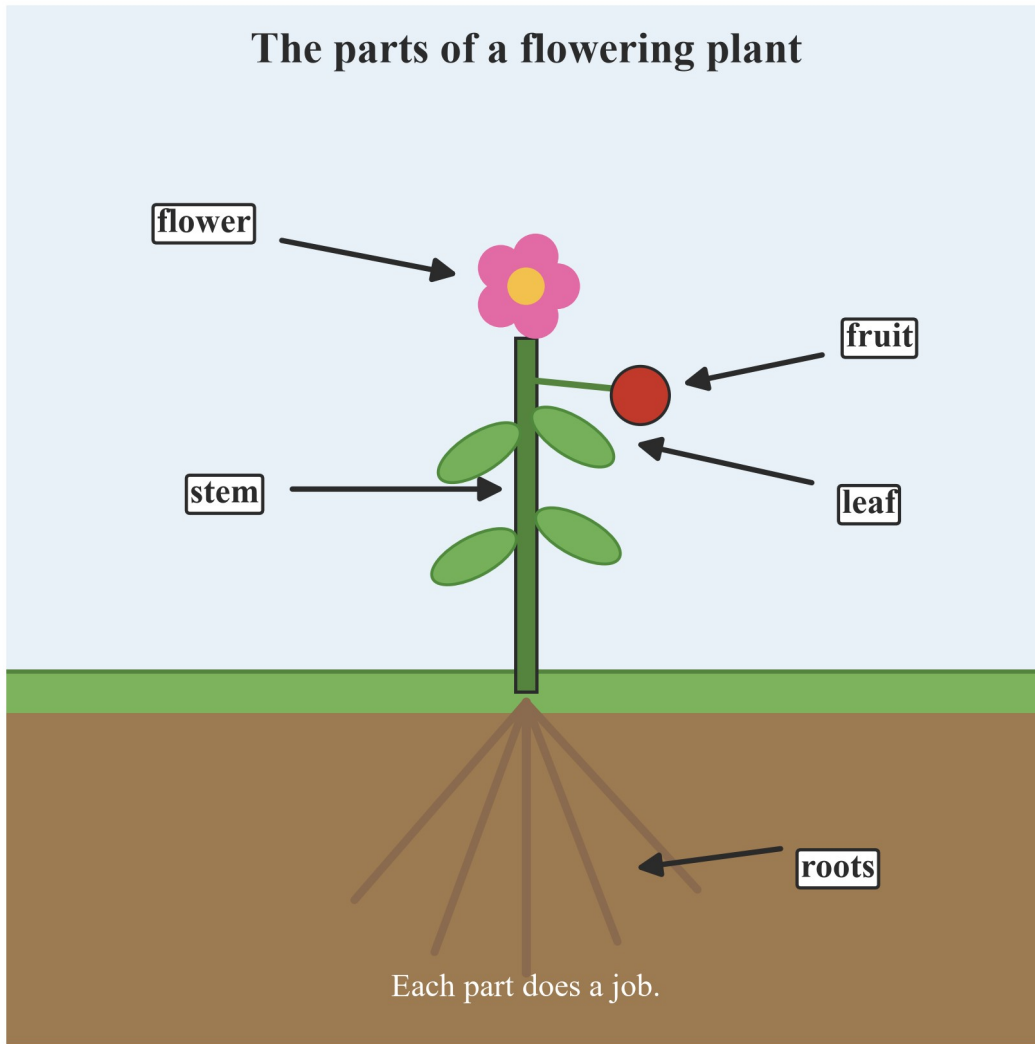
The wings are on the outside of the duck.
Flying is a way to move.
That is the job of the wings.

∴ Wings help the duck fly. Draw a line from *wings* to *helps it fly*.

Practice questions

The teacher reads all the words. The child says or does the answer. The teacher puts the answer down.

Q1. (Foundation) Look at the flowering plant.

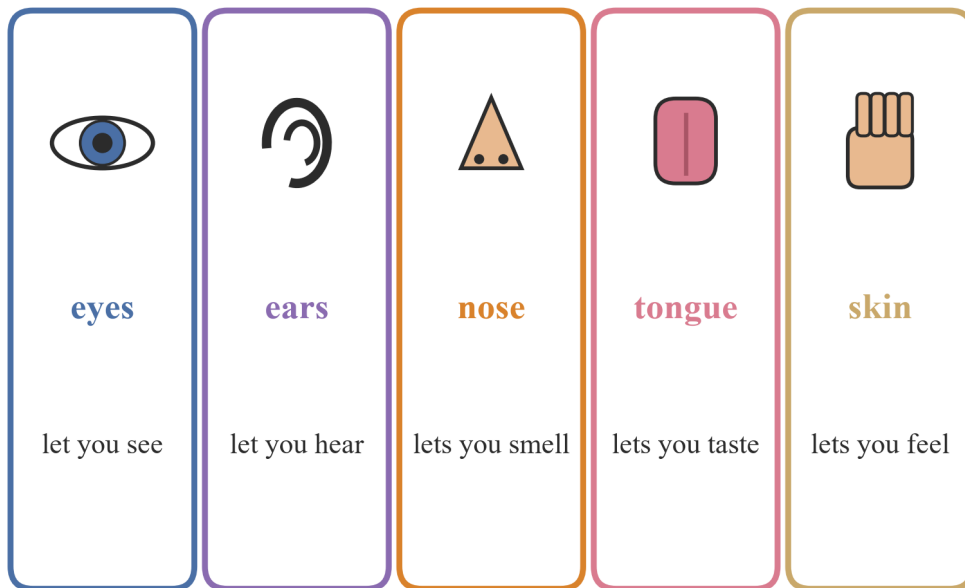


A flowering plant with the roots in the soil. The roots, stem, leaves, flower and fruit are labelled.

- Point to the roots.
- Point to the flower.
- Point to the fruit.
- Say the part that holds the plant up.

Q2. (Foundation) Look at the five sense organs.

Your five sense organs



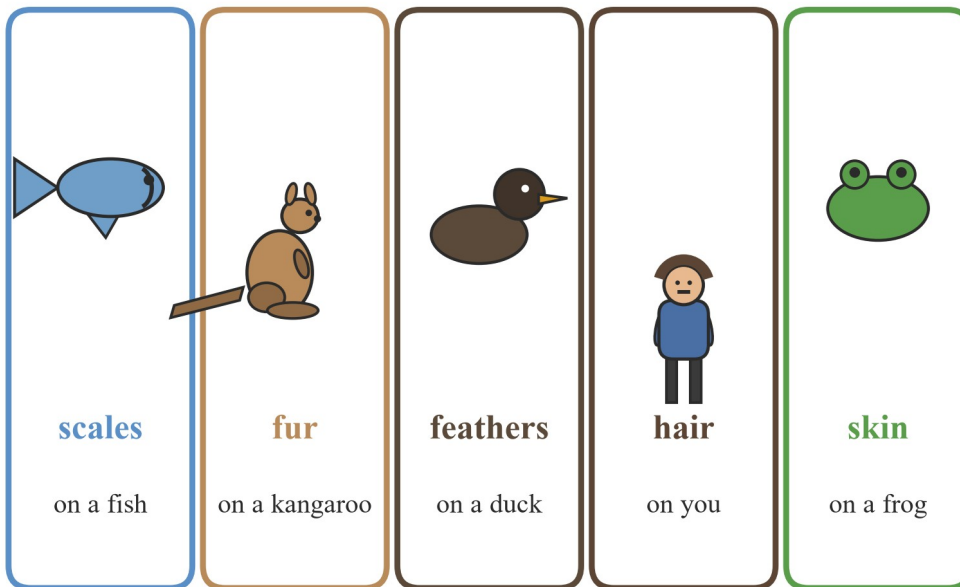
Your sense organs detect what is happening around you.

Five cards: the eyes let you see, the ears let you hear, the nose lets you smell, the tongue lets you taste, and the skin lets you feel.

- Say what you use to see.
- Say what you use to hear.
- Say what you use to smell.
- Say what you use to taste your food.

Q3. (Foundation) Look at the body coverings.

Body coverings



A covering goes on the outside of the body.
It helps keep the animal warm and safe.

Five cards: scales on a fish, fur on a kangaroo, feathers on a duck, hair on a child, and skin on a frog.

- Point to the scales.
- Say what covers the kangaroo.
- Circle the word for what covers the duck: *feathers · scales · fur*.

Q4. *(Level 1)* Match each feature to its job.

Match the feature to its job

roots	?	keeps it warm
wings	?	takes in water
gills	?	detect light
eyes	?	helps it fly
fur	?	takes air from the water

Draw a line from each feature to its job.

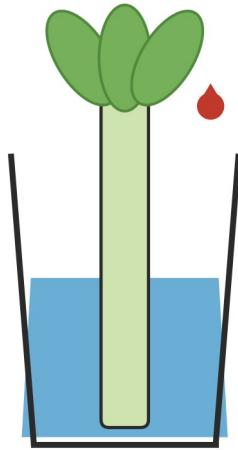
Five features on the left and five jobs on the right, ready to match with lines.

- a. roots ____
- b. wings ____
- c. gills ____
- d. eyes ____
- e. fur ____

Q5. (Level 1) A stick of celery stands in water with food colouring. The next day, the leaves have changed colour.

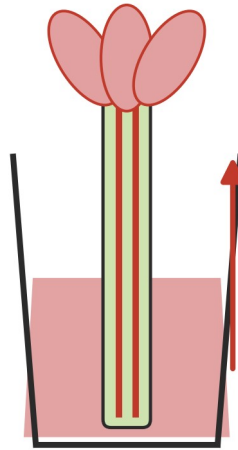
Watch water move up a stem

Day 1



water with food colouring

Day 2



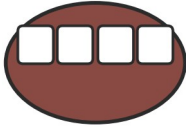
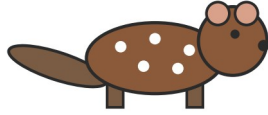
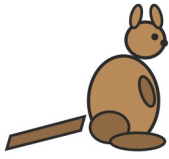
The coloured water moves up the stem into the leaves.

Two glasses with water and food colouring. A celery stick stands in each glass. On Day 1 the leaves are green. On Day 2 the leaves have changed colour.

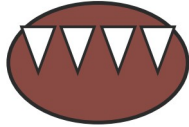
- Say the part of the plant that moved the water up.
- Say what you saw happen to the leaves.
- Circle one. The water moved *up* · *down*.

Q6. (Level 1) Look at the teeth.

Teeth match the food



flat teeth



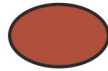
sharp teeth



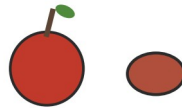
both kinds of teeth



eats plants



eats meat



eats plants and meat

herbivore

carnivore

omnivore

Three animals and their teeth. The kangaroo has flat teeth and eats plants. The tiger quoll has sharp teeth and eats meat. The child has both kinds of teeth and eats plants and meat.

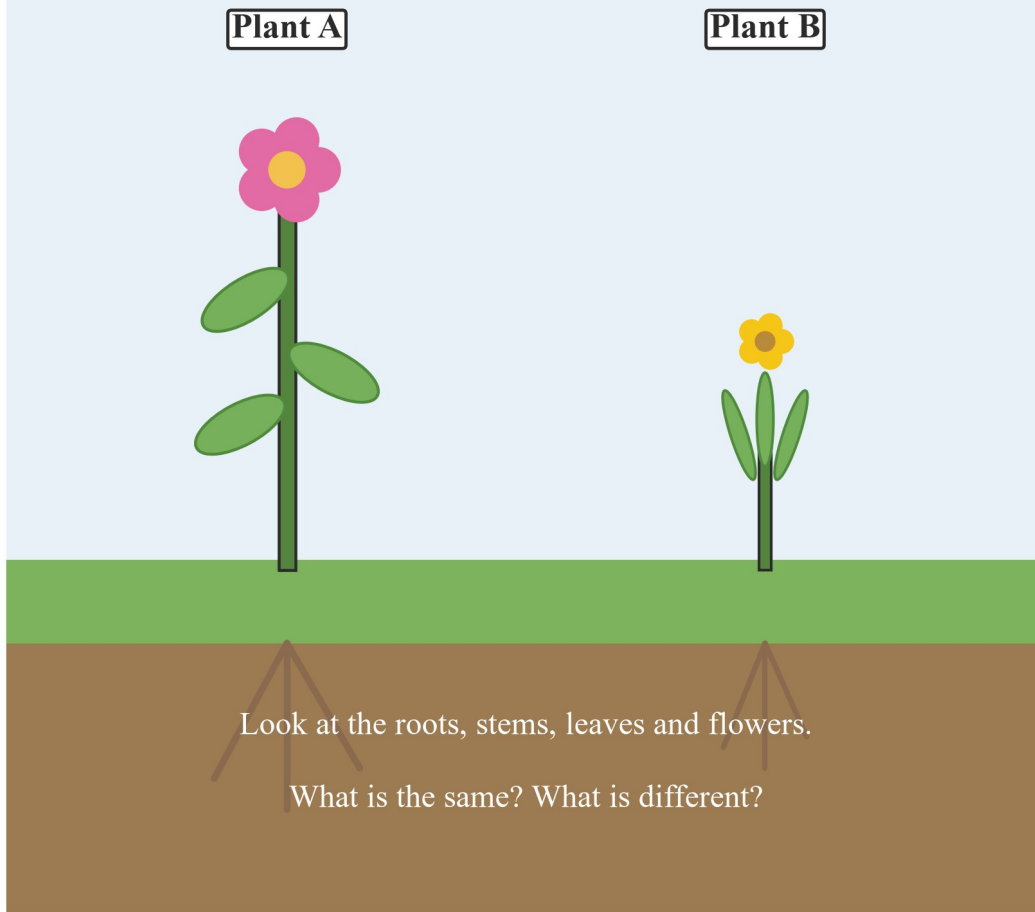
- Point to the flat teeth.
- Say what the kangaroo eats.
- Circle one. The kangaroo is a *herbivore* · *carnivore*.
- Say the word for an animal that eats meat.

Q7. (Level 1) Animals breathe in different ways.

- Say what the kangaroo breathes.
- Say what the fish uses to breathe.
- The platypus lives in the water. Say where the platypus gets its air.

Q8. (Level 1) Look at the two plants.

Compare two plants



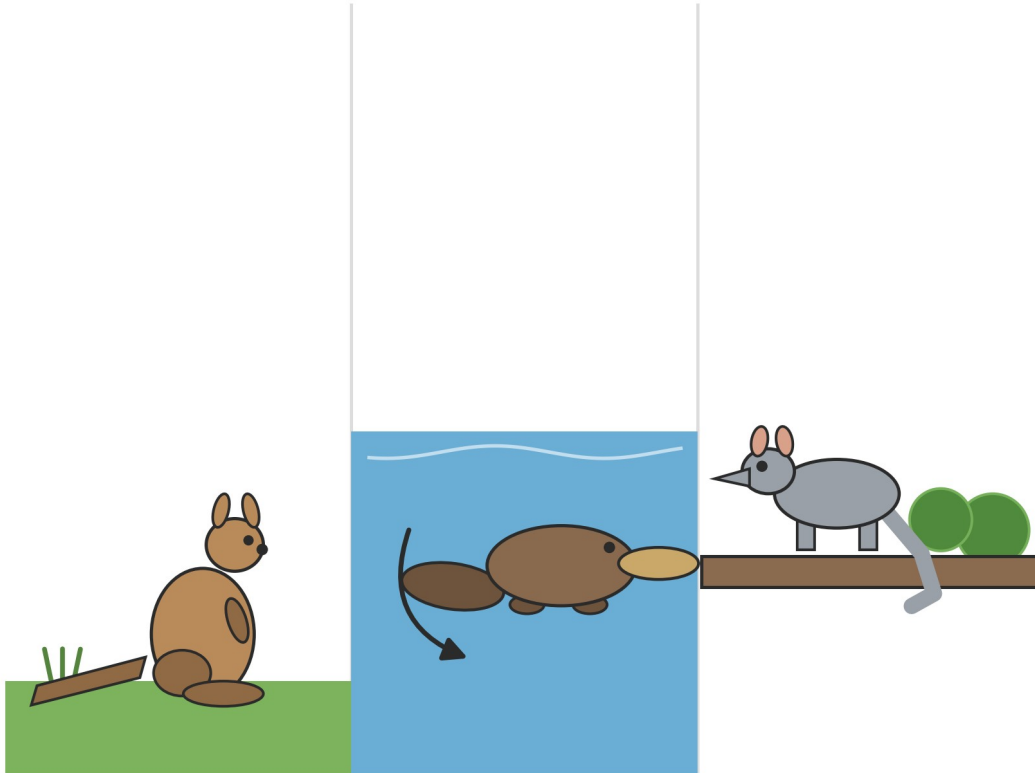
Two plants side by side, labelled Plant A and Plant B. Plant A is tall with big leaves and a big pink flower. Plant B is short with thin leaves and a small yellow flower.

- Say one thing that is the same for both plants.
- Say one thing that is different.

Q9. (Level 2) A bat flies at night. It is dark. Tell how the bat finds its food. Use the words *sound* and *ears*. Then say the name for this.

Q10. (Level 2) Look at the tails.

Tails do different jobs



The kangaroo's tail
helps it stand up.

The platypus's tail
helps it turn in water.

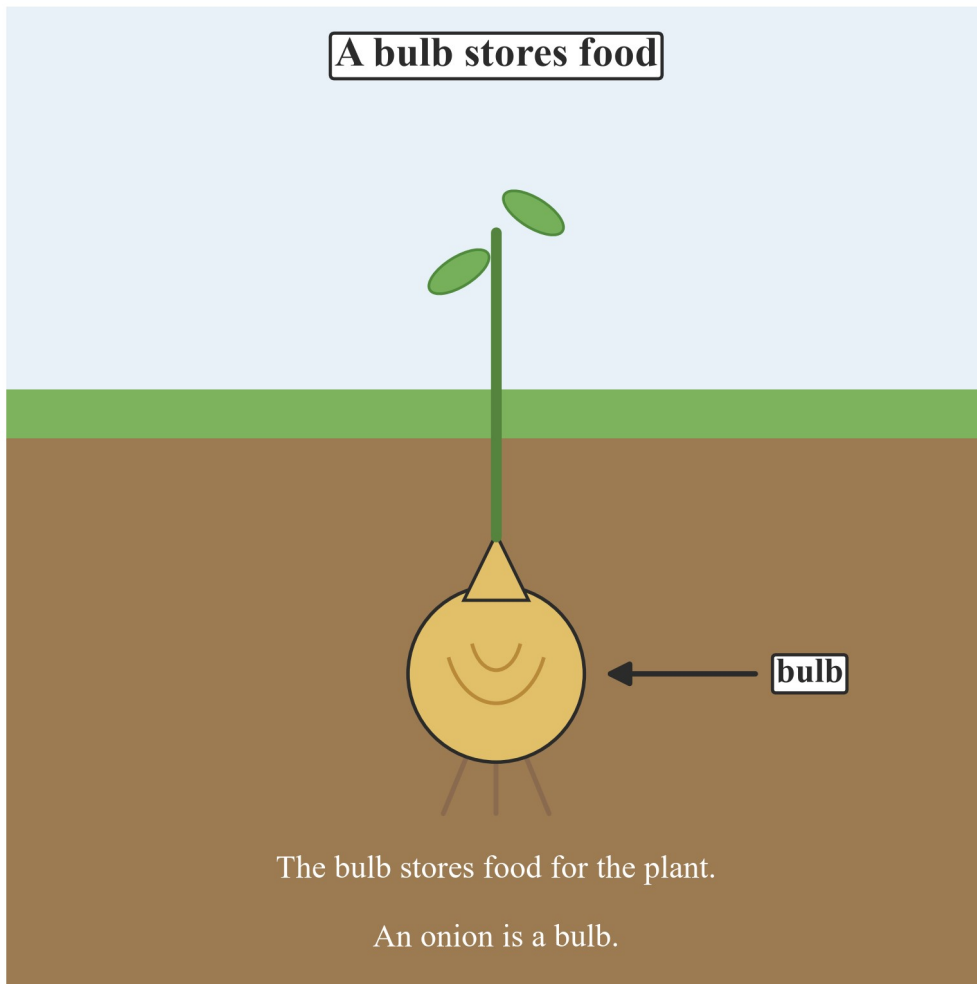
The possum's tail
helps it hold on.

Three pictures. A kangaroo stands up with its tail on the ground. A platypus turns in the water with its tail. A possum holds on to a branch with its tail.

Say the job of each tail.

- a. The kangaroo's tail helps it ____
- b. The platypus's tail helps it ____
- c. The possum's tail helps it ____

Q11. (Level 2) Some plants have bulbs.



A bulb in the soil with a green shoot growing up out of the soil. The bulb is labelled.

- Say what a bulb does for the plant.
- Say the name of a food that is a bulb.

Q12. *(Level 2)* Think of an animal you know.

- Say one feature of the animal.
- Say the job of that feature.
- Say how the feature helps the animal stay alive.

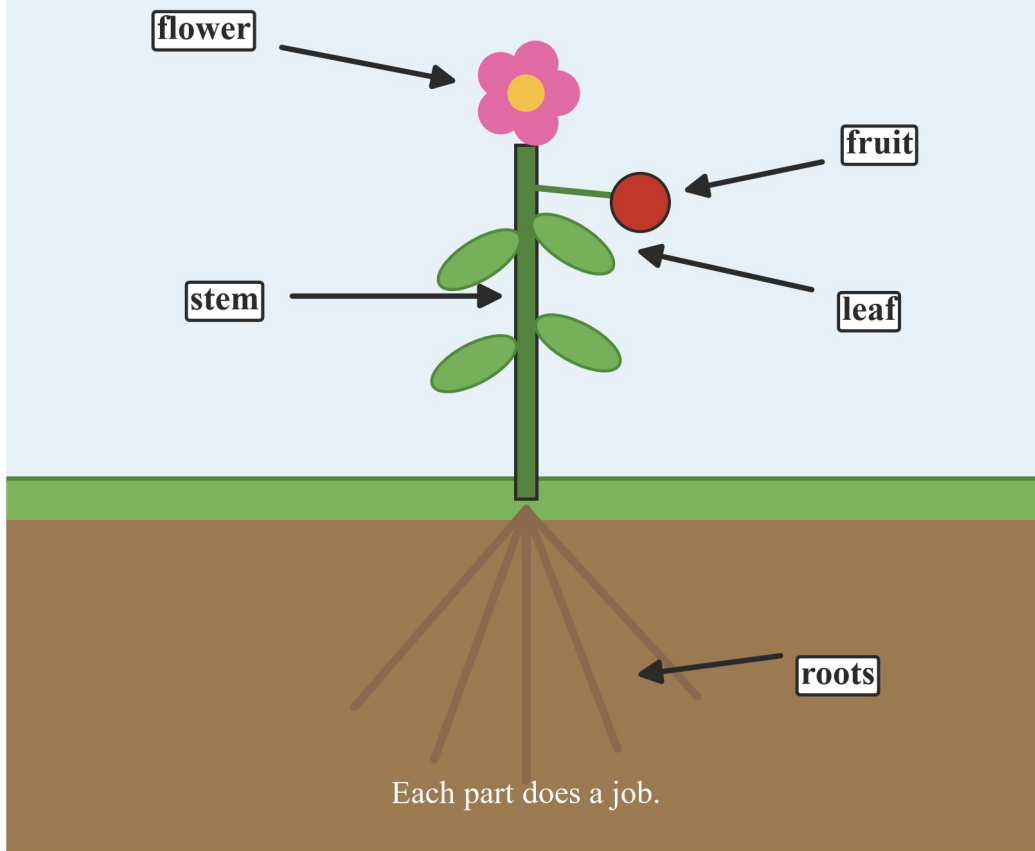
Answers

- Q1.** a. the part under the soil b. the bright part up the top c. the part that holds the seeds d. the stem.
- Q2.** a. the eyes b. the ears c. the nose d. the tongue.
- Q3.** a. the covering on the fish b. fur c. feathers.
- Q4.** a. takes in water b. helps it fly c. takes air from the water d. detect light e. keeps it warm.
- Q5.** a. the stem b. the leaves changed colour c. up.
- Q6.** a. the kangaroo's teeth b. plants (grass) c. herbivore d. carnivore.
- Q7.** a. air b. gills c. it comes up out of the water.
- Q8.** a. e.g. both have roots / stems / leaves / flowers b. e.g. Plant A is tall, Plant B is short.
- Q9.** The bat makes a sound. The sound comes back to its ears. The bat hears where its food is. This is echolocation.
- Q10.** a. stand up b. turn in the water c. hold on to a branch.
- Q11.** a. it stores food for the plant b. an onion.
- Q12.** Answers will be different. Example: a duck; its wings; the wings help it fly; flying helps the duck get food and get to a safe place, so it stays alive.

Fully-worked solutions

Q1.

The parts of a flowering plant



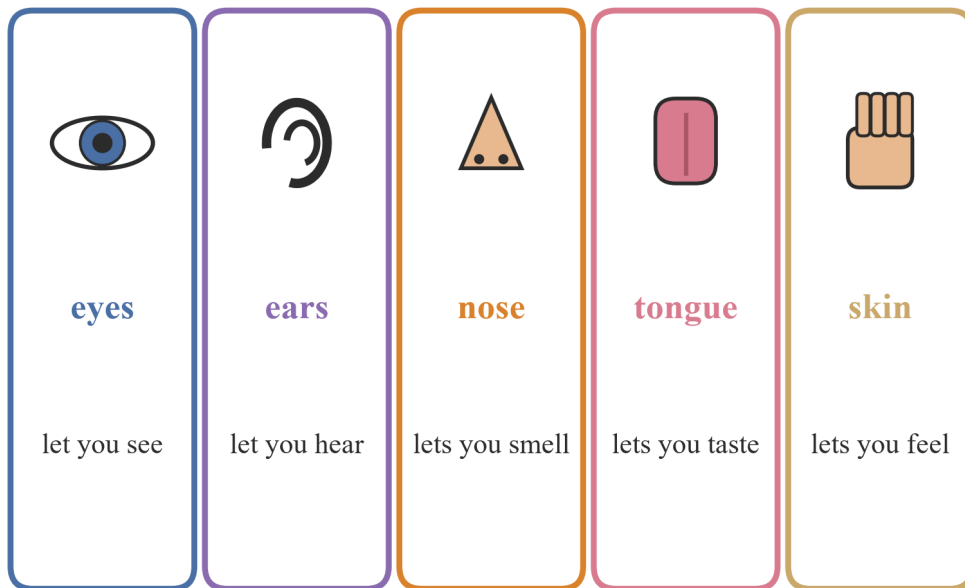
A flowering plant with the roots in the soil. The roots, stem, leaves, flower and fruit are labelled.

- The roots are under the soil. Point to them.
- The flower is the bright part up the top. Point to it.
- The fruit holds the seeds. Point to it.
- The stem holds the plant up.

∴ The roots are under the soil, the flower is up the top, the fruit holds the seeds, and the stem holds the plant up.

Q2.

Your five sense organs



Your sense organs detect what is happening around you.

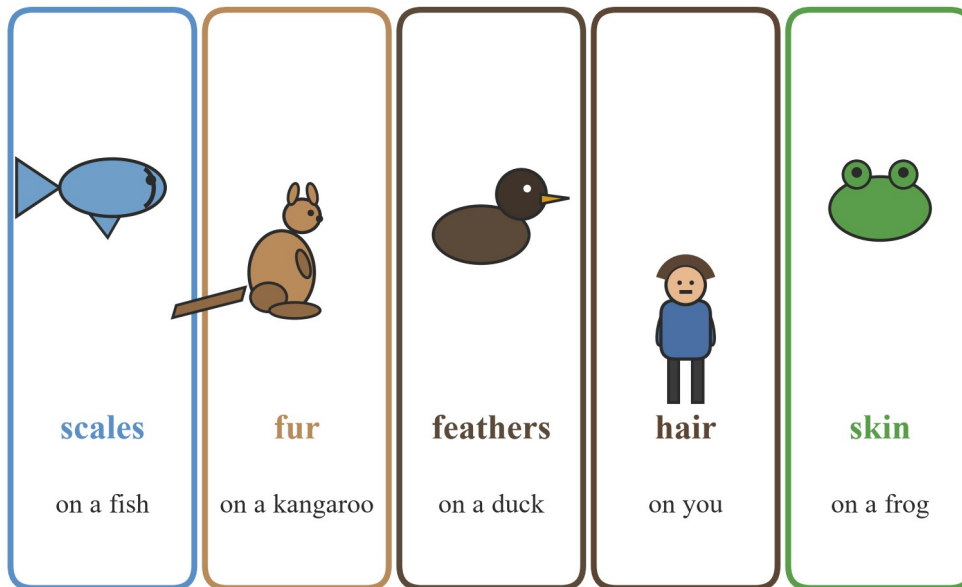
Five cards: the eyes let you see, the ears let you hear, the nose lets you smell, the tongue lets you taste, and the skin lets you feel.

- You see with your eyes.
- You hear with your ears.
- You smell with your nose.
- You taste your food with your tongue.

∴ The sense organs are the eyes, the ears, the nose, the tongue and the skin.

Q3.

Body coverings



A covering goes on the outside of the body.
It helps keep the animal warm and safe.

Five cards: scales on a fish, fur on a kangaroo, feathers on a duck, hair on a child, and skin on a frog.

- Scales cover the fish. Point to the scales.
- Fur covers the kangaroo.
- Feathers cover the duck. Circle *feathers*.

∴ The fish has scales, the kangaroo has fur, and the duck has feathers.

Q4.

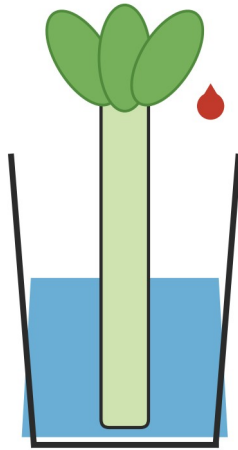
The roots are under the soil, so they take in water. Wings help the duck fly. The gills of a fish take air from the water. The eyes detect light. Fur keeps the kangaroo warm.

∴ roots → takes in water; wings → helps it fly; gills → takes air from the water; eyes → detect light; fur → keeps it warm.

Q5.

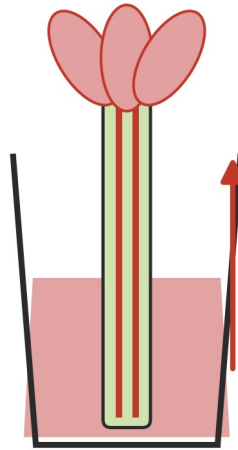
Watch water move up a stem

Day 1



water with food colouring

Day 2



The coloured water moves up the stem into the leaves.

Two glasses with water and food colouring. A celery stick stands in each glass. On Day 1 the leaves are green. On Day 2 the leaves have changed colour.

- The water moved up the celery. The stem moves water up.
- The leaves changed colour on Day 2.
- The coloured water moved from the glass up into the leaves. It moved up.

∴ The stem moved the water up, the leaves changed colour, and the water moved up.

Q6.

- The kangaroo's teeth are flat. Point to them.
- Flat teeth rub plants and make them small. The kangaroo eats grass and other plants.
- An animal that eats plants is a herbivore. Circle *herbivore*.
- An animal that eats meat is a carnivore.

∴ The kangaroo eats plants and is a herbivore. An animal that eats meat is a carnivore.

Q7.

- The kangaroo breathes air with its lungs.
- The fish breathes with its gills. The gills take air from the water.
- The platypus breathes air. It comes up out of the water to breathe.

∴ The kangaroo breathes air, the fish uses its gills, and the platypus comes up out of the water for air.

Q8.

- Both plants have roots, stems, leaves and flowers. Say one of these.

- b. Plant A is tall and Plant B is short. The leaves of Plant A are big and the leaves of Plant B are thin. Say one of these.

∴ The two plants have the same parts, but the parts look different.

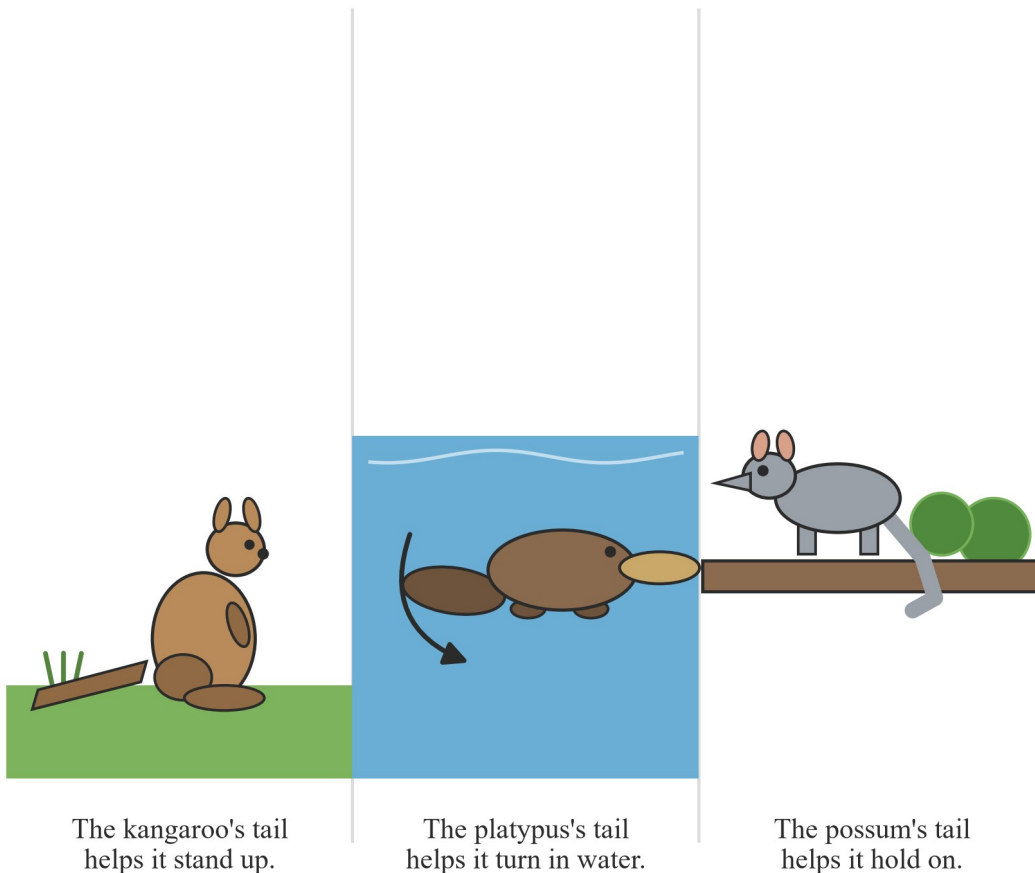
Q9.

The bat makes a very small sound. The sound goes out and comes back to the bat's ears. The bat hears where its food is. This helps the bat find its food in the dark. This is called echolocation.

∴ The bat finds its food with sound and its ears. This is echolocation.

Q10.

Tails do different jobs



Three pictures. A kangaroo stands up with its tail on the ground. A platypus turns in the water with its tail. A possum holds on to a branch with its tail.

- The kangaroo's tail helps it stand up.
- The platypus's tail helps it turn in the water.
- The possum's tail helps it hold on to a branch.

∴ Tails do different jobs for different animals.

Q11.

- A bulb is under the soil. It stores food for the plant. The plant uses the food to grow.
- An onion is a bulb.

∴ A bulb stores food for the plant, and an onion is a bulb.

Q12.

Think of an animal, like a duck. The duck has wings. Wings are a feature on the outside of the duck. The job of the wings is to help the duck fly. Flying helps the duck get food and get to a safe place. So the wings help the duck stay alive.

∴ A feature does a job, and the job helps the animal stay alive.