Y2 Science – Animals, including Humans
Key Concept – Variation, Similarity and Difference and Change

Essential Knowledge

What is a habitat?
Most living things live in habitats to which they are suited. Different habitats provide for the basic needs of different kinds of animals and plants.

How are animals suited to their habitats?
Animals are adapted so they can survive in their habitat.

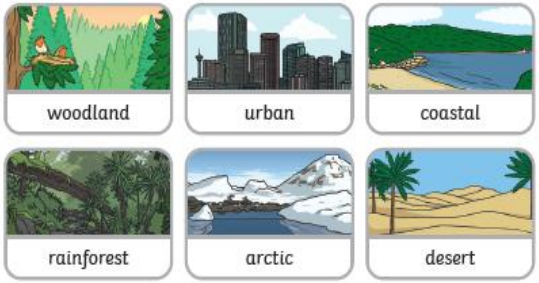
How do animals get their food?
Arrows on a food chain show the direction that the energy goes.

What is a microhabitat?
A smaller part of the habitat with certain types of conditions where specific animals can live.

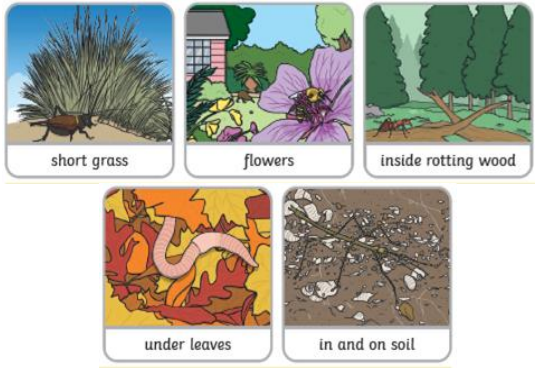
What can we find in a microhabitat?
Some examples are plants and animals such as worms, ants, centipedes and beetles.

What have I learnt about animals?
I know where animals live and how they are adapted to survive.

habitat



microhabitat



Aspirational Knowledge

Humans have an impact on the environment and an animal's habitat.

Key Vocabulary

food chain	A food chain shows how each animal gets its food.
food sources	This is the place a living thing's food comes from.
habitat	The natural place something lives.
microhabitat	A very small habitat in places like under a rock, under leaves or on a branch.
depend	They need each other for different things.

Working Scientifically

To observe closely and perform simple tests.
To identify and classify.
To gather and record data to help in answering questions.

Y2 Science – Animals, including Humans
Key Concept – Variation, Similarity and Difference and Change

Key Knowledge

What is a habitat?
Living things live in places they can find food and shelter.

How are animals good for their habitats?
Animals are adapted so they can survive in their habitat.

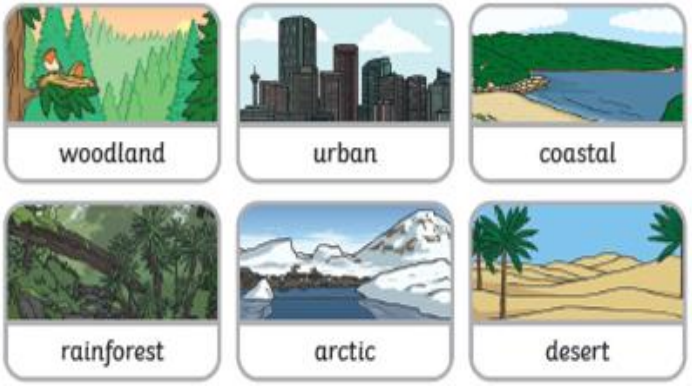
How do animals get their food?
Arrows on a food chain show the direction that the energy goes.

What is a microhabitat?
A smaller part of the habitat where specific animals can live.

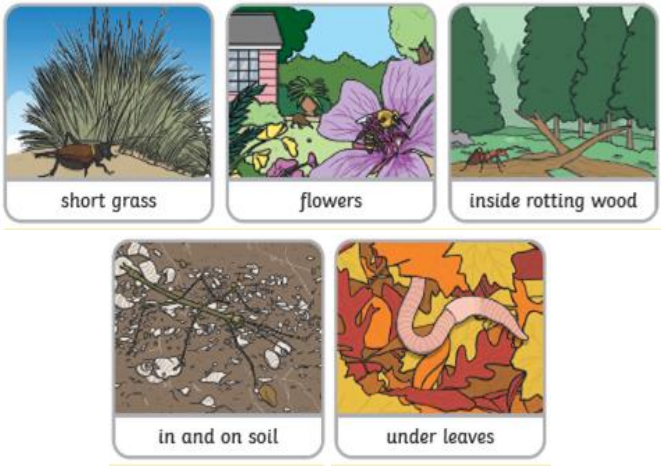
What can we find in a microhabitat?
Some examples are plants and animals such as worms, ants, centipedes and beetles.

What have I learnt about animals?
I know where animals live and how they are adapted to survive.

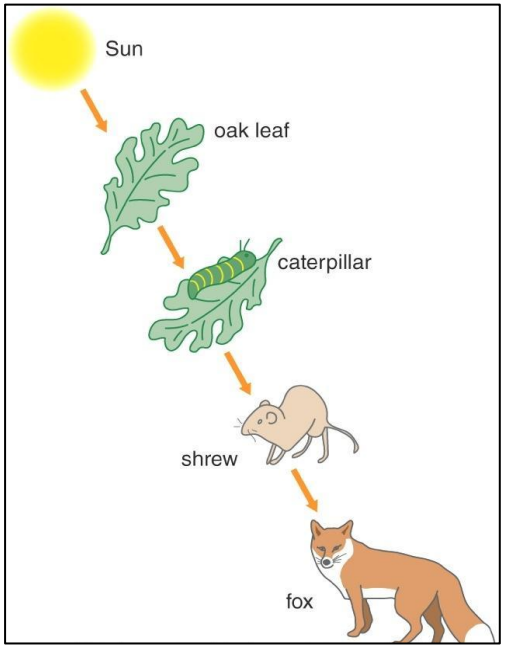
habitat: where something lives



microhabitat: the smaller places something lives



food chain



Working Scientifically

I can plan an investigation.
I can perform simple tests.
I can record my findings.
I can sort into groups.
I can collect data.

Y2 Science – Healthy Food
Key Concept – Cause and Effect

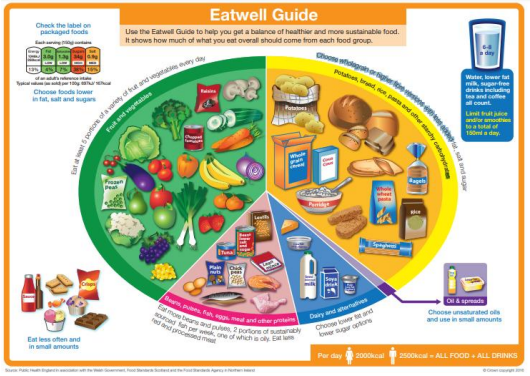
Essential Knowledge

Where should food be stored?
Some foods must be stored in a fridge or freezer. Other foods can be stored elsewhere, for example, in cupboards.

How does food keep me healthy?
Food can be split into groups: fruits and vegetables, carbohydrates, protein, dairy, fat and sugary foods. More than half of our diet should be made up of carbohydrates, fruit and vegetables.

What counts as my 5 a day?
You need to eat 5 portions of fruits and vegetables to keep us healthy. Fats and sugary foods should be eaten rarely and in small amounts.

What do I know about keeping healthy?
Share what you have learnt about food groups and healthy food.



Key Vocabulary

healthy	Keeping your body working at its best.
carbohydrates	A main source of energy.
protein	Builds, maintains and replaces the tissues in your body. Most of your body is made of protein.
fats	Fuel the body and help it absorb some vitamins.
diet	The types of food a person consumes.

Aspirational Knowledge

All foods contain nutrients which your body needs to stay active, help keep you strong and grow as you get bigger. A balanced diet is one that gives your body the nutrients it needs to function correctly.

Working Scientifically

Plan an investigation to perform simple tests.
Collect data and use it to answer questions.

Y2 Science – Healthy Food
Key Concept – Cause and Effect

Key Knowledge

Where do I keep my food?
Fridge, freezer or cupboards.

How does food keep me healthy?
Food can be split into groups: fruits and vegetables, carbohydrates, protein, dairy, fat and sugary foods.

What counts as my five a day?
Fruits and vegetables are important in our daily diet.
We should not eat a lot of fats and sugary foods.

What do I know about keeping healthy?
Share what you have learnt.

Working Scientifically

Think of a way to find something out.
Try things out to see what happens.
Write down or draw what I see.
Put things into groups and say why.
Use what I find out to help me answer questions

Key Vocabulary

healthy

unhealthy

carbohydrates

protein

diet

Y2 Science – Healthy Me (Hygiene)
Key Concept – Cause and Effect

Essential Knowledge

Why is exercise important for humans?
Exercise is important for us.

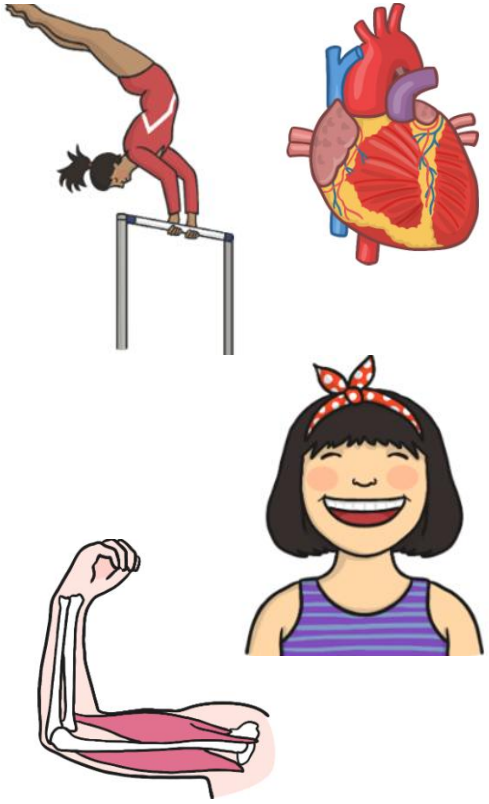
Which foods are best for me to keep healthy?
Some foods help us to feel strong, healthy, help us go to the toilet and give us energy.

How and why do we brush our teeth?
We should brush our teeth twice a day for two minutes.

How do germs make us ill?
Bacteria and virus germs can survive outside the body on surfaces for a long time.

What is good hygiene?
Sneezing, coughing and touching objects can spread germs. We must wash our bodies regularly and clean hands often.

How can we keep our bodies healthy?
Humans need to take care of their own bodies so that they don't get infections.



Key Vocabulary

hygiene 	The things we do to keep our body clean and help stop the spread of germs.
food	Usually comes from animals or plants and is eaten by living things to provide energy and nutrition.
exercise 	Activities that use your muscles in lots of different ways to keep fit. Move parts of your body to become stronger and healthier,
germs 	Tiny creatures that are too small to see. They can make us very sick.
healthy	Keeping your body "working at its best". Feeling well and happy.
unhealthy	Not good for your health. e.g. too much chocolate is unhealthy.

Aspirational Knowledge

Exercise can have different effects on the body and not exercising also influences the body.

Working Scientifically

Plan an investigation.
Perform simple tests.
Record my findings.
Sort into groups and explain my ideas.
Collect data and use it to answer questions.

Y2 Science – Healthy Me (Hygiene)
Key Concept – Cause and Effect

Key Knowledge

Why do I need exercise?
Exercise is important to keep us healthy.

Which foods are best for me?
Some foods help us to feel strong and healthy.

How do I brush my teeth?
You should brush your teeth for 2 minutes a day twice a day.

How do germs make us ill?
Sneezing, coughing and touching objects can spread germs.

How do I keep clean?
Humans need to take care of their own bodies so that they don't get infections.

How can we keep our bodies healthy?
Share what you have learnt.

Working Scientifically

Plan an investigation.
Do simple tests.
Write down my findings.
Sort into groups.
Collect data.

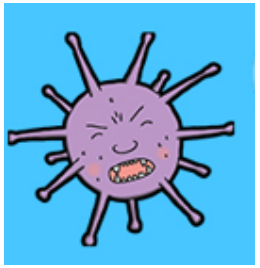
Key Vocabulary

keeping clean

healthy

unhealthy

germs



exercise

food

Y2 Science – Living and Non-Living Things
Key Concept – Variation, Similarity and Difference

Essential Knowledge

How can I identify if something is alive?
Living things move, grow, consume nutrients and reproduce and dead things used to do these things.

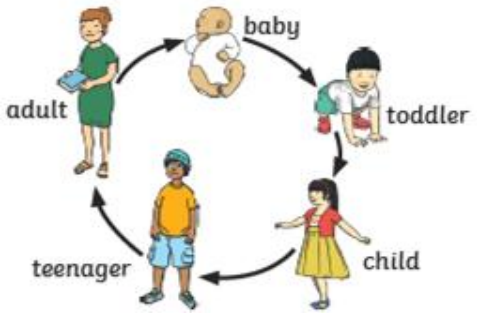
What do animals need to stay alive?
Animals need air, water and food to survive and a suitable habitat.

How do animals and humans change as they grow?
Animals, including humans, reproduce and have offspring which grow into adults.

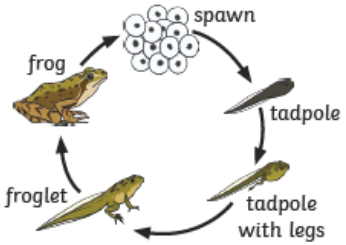
What is the difference between something living and non-living?

Some offspring look like their parents.
Other animals have young which do not look like them.
Some animals lay eggs.

Human Life Cycle



Frog Life Cycle



Aspirational Knowledge

Humans have an impact on the environment and an animal's habitat.
If a living thing becomes limited, it affects the whole food chain.

Key Vocabulary

life processes	These are the things that all living things do.
survive	This means to stay alive.
children	Humans less than 18 years old.
adult	A fully grown plant or animal
develop	To grow and become stronger.
offspring	The child of an animal.
reproduce	When living things make a new living thing of the same kind.
young	Offspring that has not reached adulthood
life cycle	The changes living things go through to become an adult

Working Scientifically

Plan an investigation, perform simple tests & record my findings.
Sort into groups and explain my ideas.
Collect data and use it to answer questions.

Y2 Science – Living and Non-Living Things
Key Concept – Variation, Similarity and Difference

Key Knowledge

How can I find out if something is alive?
Living things move, grow and eat.
Dead things do not move, grow or eat.

What do animals need to stay alive?
Animals need air, water and food to survive and a suitable habitat.

How do humans and animals change as they grow?
All living things have babies that grow into adults.

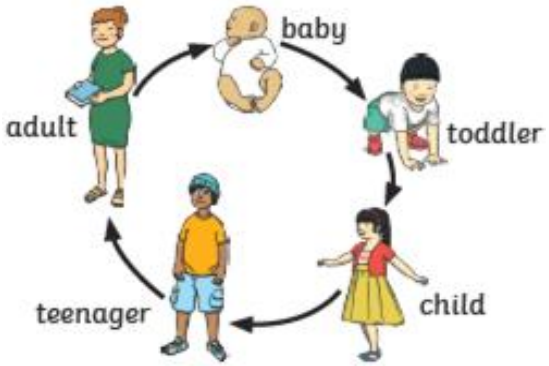
What is the difference between living and non-living things?
Non-living things never move, grow or eat.

Working Scientifically

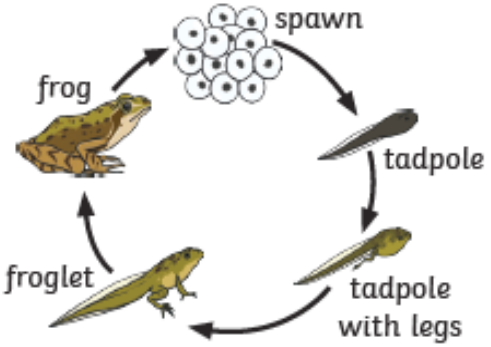
Plan an investigation.
Do simple tests.
Write down my findings.
Sort into groups.
Collect data.

Living, not alive, never alive

Human Life Cycle



Frog Life Cycle



Y2 Science – Materials

Key Concept – Change, Similarity and Difference

Essential Knowledge

What are objects made from?
Materials can be grouped in different ways according to their properties.

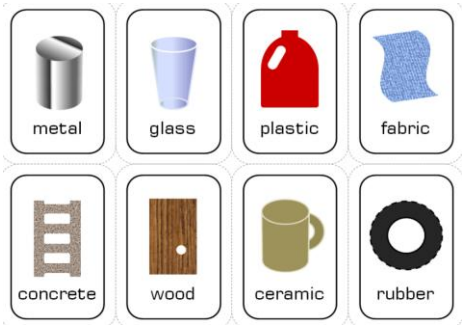
What are the properties of materials?
Materials can have useful properties for a given job.

Which materials would be best for a toy boat?
Materials can be waterproof, strong, hard, soft, flexible, rigid, light or heavy.

How do you make a boat to carry a bear?
A boat needs to be waterproof and float.

How did your boat keep the bear dry?
It needs to be waterproof. We can perform tests to find answers to questions that we have.

What do I know about materials?
Share what I have learnt.



Aspirational Knowledge

There are natural materials, such as wool and wood, that come from living things or the ground.
There are synthetic materials, like plastic, which are made from chemicals.

Key Vocabulary

material	This is any substance that has a name (paper or wood).
properties	This is something about it that we can measure, see or feel.
suitability	Being appropriate for its purpose.

Working Scientifically

Plan investigation.
Perform simple tests.
Record my findings.
Sort into groups and explain my ideas.
Collect data and use it to answer questions.

Y2 Science – Materials
Key Concept – Change, Similarity and Difference

Key Knowledge

What are things made from?
Materials are used for different jobs.

What do materials feel and look like?
Materials can feel and look different.

Which materials would be best for a toy boat?
Materials can be waterproof, strong, hard, soft, flexible, rigid, light or heavy.

How do I make a boat to carry a bear?
A boat needs to be waterproof and float.

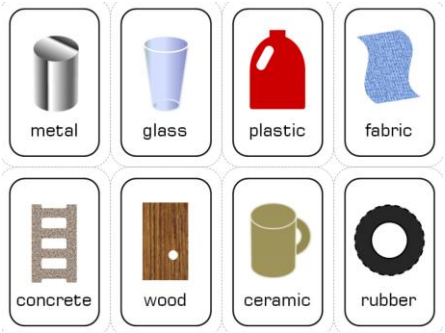
How do you make a boat keep the bear dry?
We can perform tests to find answers to questions that we have.

What do I know about materials?
Share what I have learnt.

Working Scientifically

Plan an investigation.
Do simple tests.
Write down my findings.
Sort into groups.
Collect data.

Key Vocabulary

materials	
properties	
floating and sinking	

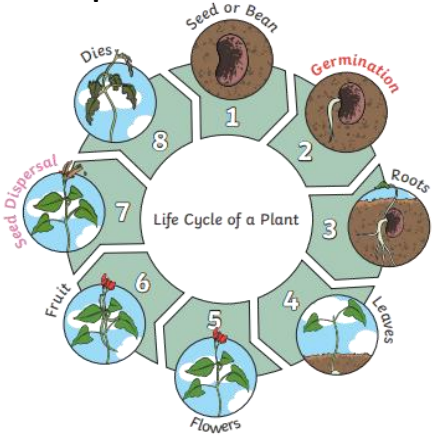
Y2 Science – Young Gardeners
Key Concept – Structures and Functions

Essential Knowledge

How can I look closely at plants and trees and record what I see?
Seeds and bulbs need to be buried underground in soil and that they will grow into adult plants under the right conditions (water and warmth).

What are seeds and bulbs?
A seed is a small plant. A bulb is an underground plant structure.

What is the lifecycle of a plant?



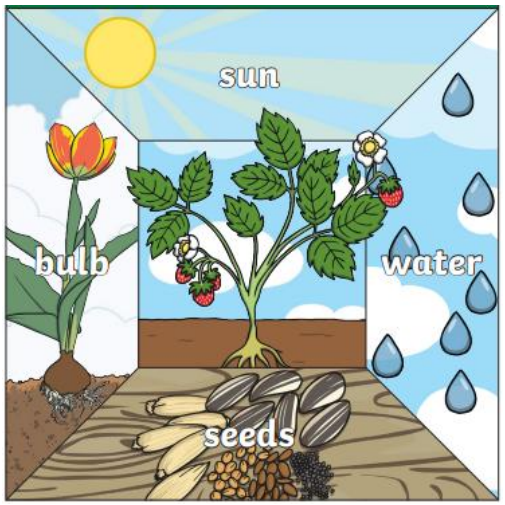
How can I compare how different plants grow?
Plants that are deprived of light, food or air will not grow and will die. Plants and animals produce offspring that grow into adults.

Which plants do we eat?
Edible plants are mainly fruits, vegetables and herbs.

How can I compare how different plants grow?
Share similarities and differences.

Key Vocabulary

nutrition	Food or nourishment.
temperature	Temperature is how warm or cold something or somewhere is. Some plants like cooler temperatures and some like warmer temperatures.
water	All plants need water to grow. Without water, seeds and bulbs will not germinate.
sunlight	All plants need light from the sun to grow well. Some plants need lots of sunlight. Some plants only need a little sunlight.
shoot	A shoot grows upwards from the seed or plant to find sunlight.
germination	When the conditions are right, the seed soaks up water and swells, and the tiny new plant bursts out of its shell. This is called germination.



Working Scientifically

Use simple equipment to observe closely including changes over time.
Perform simple comparative tests.
Use observations and ideas to suggest answers to questions noticing similarities, differences and patterns.

Aspirational Knowledge

Understanding how to conduct a fair test.

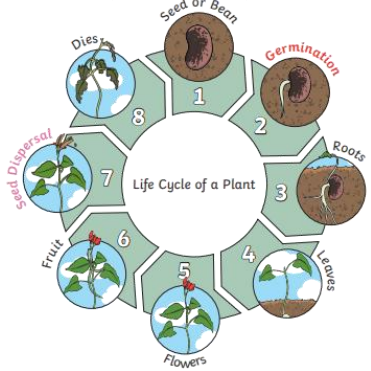
Y2 Science – Young Gardeners
Key Concept – Structures and Functions

Key Knowledge

How can I look closely at plants and trees and record what I see?
Seeds and bulbs need to be underground in soil.

What are seeds and bulbs?
A seed is a small plant. A bulb is an underground plant structure.

What is the life cycle of a plant?

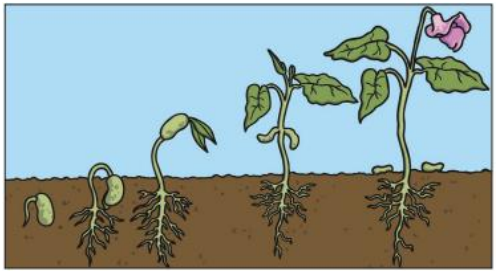
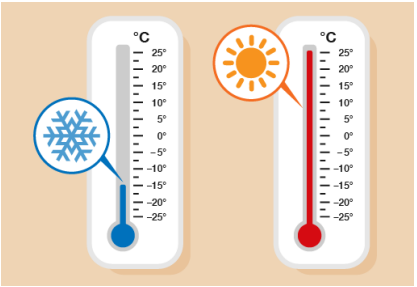


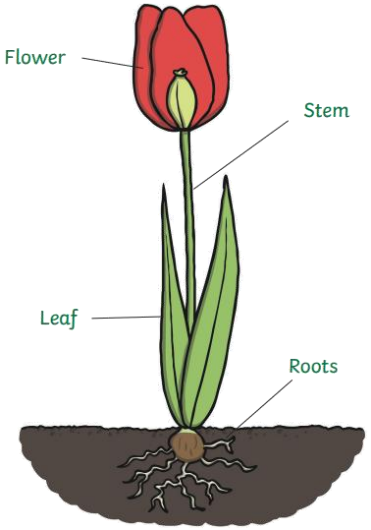
What do plants need to live?
Plants need water and sunlight to grow.

Which plants do we eat?
We can eat fruit, vegetables and herbs.

How can I compare how different plants grow?
Similarities and differences.

Key Vocabulary

grow	
temperature	



Working Scientifically

Do simple tests.
Ask questions about the tests.