

Key Vocabulary

Word	Meaning
materials	the stuff an object is made out of
senses	a person or animal obtains information about the physical world
waterproof	Will not soak up liquids
absorbent	Can soak up liquids
transparent	Can see through it
opaque	Can't see through it
rough	Uneven/ bumpy
smooth	Not rough or uneven
object	something that can be seen or touched

Properties of Everyday Materials

Knowledge

'Material' is the stuff an object is made out of.
 Plastic is made from oil.
 Wood comes from trees.
 Rock is found underground.
 Glass is made from sand.
 Metal is found inside rock.



Katharine Blodgett, General Electric's first female scientist, discovered a way to eliminate glare and distortion on glass which revolutionised cameras, mi-

Useful links: Everyday materials song
https://www.youtube.com/watch?v=ErmhTrOA9pw&feature=emb_title

hard not easily broken, bent or cut

stretchy can be made longer or wider without breaking

soft not firm to the touch

stiff not easy to bend out of shape

shiny reflects light off its surface

bendy is flexible and can be bent

rough uneven and bumpy surface

smooth an even surface with no bumps

absorbent can soak up liquid

waterproof will not soak up liquid

opaque can't see through it

transparent can see through it

UMBRELLA

METAL tube to make the umbrella strong

WOODEN handle for good grip and comfort

FUN FACTS: The most common metal found on our planet is iron.

5 Senses



Learning Outcomes

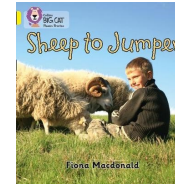
- describe materials using their senses.
- describe materials using specific scientific words.
- hard/soft; stretchy/stiff; shiny/dull; rough/smooth; bendy/not bendy; waterproof/not waterproof; absorbent/not absorbent; opaque/transparent
- explain what material objects are made from.
- explain why a material might be useful for a specific job.
- name some different materials.
- sort materials into groups by a given criteria.
- explain how solid shapes can be changed by squashing, bending, twisting and stretching.



Key Vocabulary

Word	Meaning
material	the stuff an object is made out of.
object	something that can be seen or touched
everyday	suitable for use on ordinary days
compare	discover similarities and differences
Wood	comes from trees .
Plastic	is made from oil .
glass	is made from sand .
fabric	any type of cloth made from woven, knitted, or felted thread or fibres
metal	is found inside rock .
Rock	is found underground.
Abrasive	roughness of texture
silky	Extremely smooth. Resembles silk

Classifying and grouping materials



Alexander Parkes (1813 - 1890) was an English inventor. He created the earliest form of plastic which was called parkesine.

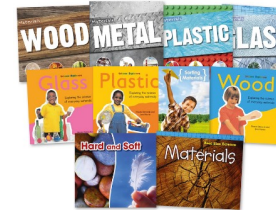
Knowledge

Objects are things.

A chair is an object.

Materials are the thing that objects are made from.

Wood is a material.



Useful links: Materials Song
https://www.youtube.com/watch?v=xOKr462HLc0&feature=emb_logo

FUN FACTS: Currently, **diamond** is regarded to be the hardest known material in the world.

Objects							
dress	chair	car	mugs	window	toy duck	bands	books
Materials							
plastic	ceramic	rubber	fabric	wood	paper	glass	metal

Learning Outcomes

- distinguish between an object and the material from which it is made.
- identify and name a range of everyday materials. (wood, plastic, metal, water, rock)
- describe the simple physical properties of a variety of everyday materials.
- compare and classify a variety of materials based on their simple physical properties.

Grouping Materials

wood

shed, pencil, chair, desk, bed, bookcase, side table, drawers

These objects are made of wood.

Grouping Materials

glass

bottle, lightbulb, television, fishbowl, windscreen, mirror, glasses

These objects are made of glass.

Grouping Materials

fabric

trousers, teddy, hat, jumper, armchair, handbag, rug

These objects are made of fabric.

Grouping Materials

metal

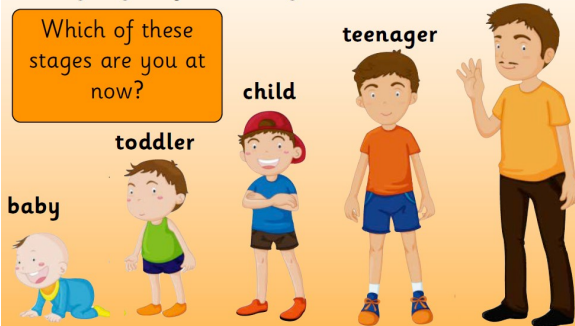
spanner, nails, key, pan, frying pan, tin, screwdriver

These objects are made of metal.

Key Vocabulary

Word	Meaning
senses	How a person or animal obtains information about the physical world
Sight	the ability to see using the eyes
Smell	Detect something using the nose
hear	able to perceive sound using the ears
Touch	contact with something so as to feel it
taste	sensory receptors on the surface of the tongue or in the mouth
Skeleton	The structure of bones of a person or animal
bones	the main material that makes up the skeleton

These pictures show the stages you go through as you grow from a baby into an adult.



The Human Body (and other animals)

Knowledge

The human body comes in lots of different shapes and sizes. We all have a skeleton. The bones help our body to stay standing up.

Parts of your face include your forehead, eyes, cheeks, ears, nose and mouth.

Your neck allows your head to move from side to side, so you can turn your face to look at something.

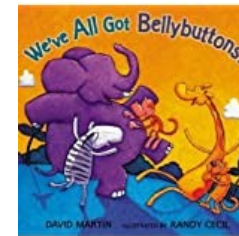
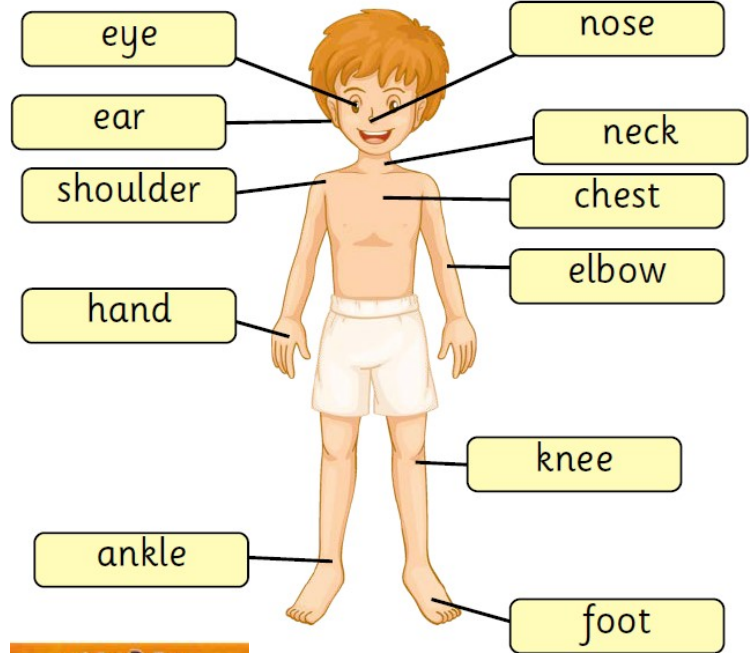
Parts of your arm include your hand, wrist and elbow.

Parts of your leg include your foot, ankle, shin and thigh.

The parts of your body that help your arms twist around are called shoulders – your legs are attached to hips.

Useful links: Our Body Parts

<https://www.bbc.co.uk/bitesize/topics/z9yycdm/articles/zqhr82>



FUN FACTS: Your fingernails grow four times as fast as your toenails.

Learning Outcomes

- use senses (see, touch, smell, hear or taste) to help them answer questions.
- Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.**
- point out some of the differences between different animals.
- name the parts of the human body that they can see. (including head, neck, arms, elbows, legs, knees, face, ears, eyes, hair, mouth, teeth)
- identify the main parts of the human body and link them to their senses.

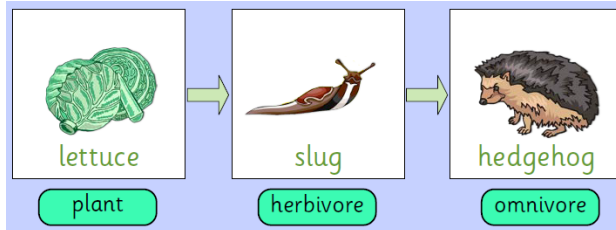
Marie Curie is remembered for her discovery of radium and polonium, and her huge contribution to finding treatments for cancer.



Key Vocabulary

Word	Meaning
Amphibians	Live in water as babies and on land as they grow older
Birds	Have feathers, two legs and wings
Fish	Breathe underwater and have scaly skin
mammals	Breathe air and feed on their mother's milk as a baby. All mammals have fur or hair.
reptiles	Breathe air and have scales on their skin.
omnivore	an animal that will feed on any type of food
carnivore	an animal that only eats other animals
herbivore	an animal that feeds only or mainly on grass and other plants.
vertebrate	have a backbones.

FUN FACTS: A dolphin is classified as a mammal because they are warm blooded and give birth.



Classifying Animals

Knowledge

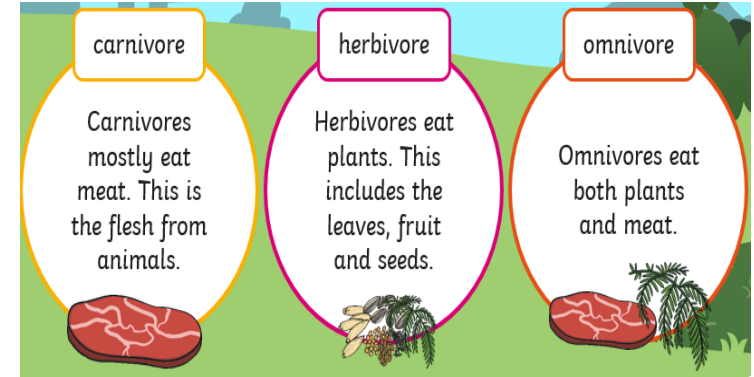
Animals are classified into different groups. All mammals are warm blooded. This means they can keep their body temperature the same, no matter what the weather.

Most mammals give birth to live young, unlike birds who lay eggs.

A bird has feathers, wings and a beak. They are warm-blooded and lay eggs. Most birds can fly. Birds are vertebrates. This means they have backbones.

A reptile has dry, scaly skin. They are cold-blooded vertebrates. Most reptiles lay eggs. Reptiles can be snakes, lizards, crocodiles, turtles or tortoises.

Useful links:
Identifying animals as birds, reptiles or mammals
<https://www.youtube.com/watch?v=pap2a3PSkbw>



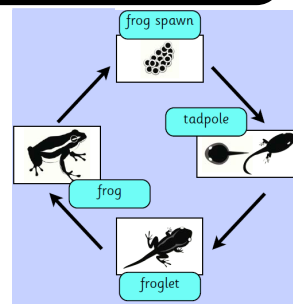
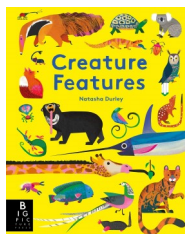
Sir David Attenborough
(1951–present)

is an English broadcaster, writer, and a well-known face and voice of natural history documentaries. The Life series that Attenborough wrote and produced became the standard for modern nature documentaries.

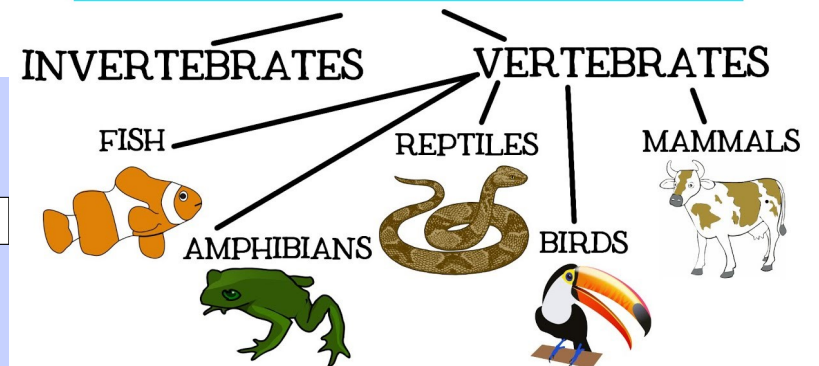


Learning Outcomes

- identify animals and plants by a specific criteria, e.g, lay eggs or not; have feathers or not.
- Identify and name a variety of common animals that are carnivores, herbivores and omnivores
- classify common animals. (birds, fish, amphibians, reptiles, mammals, invertebrates)
- describe how an animal is suited to its environment.
- name the parts of an animal's body.
- name a range of domestic animals.



ANIMAL CLASSIFICATION



Key Vocabulary

Word	Meaning
plant	A living thing that grows in the earth and has a stem, leaves, and roots.
Trees	A woody plant.
Shrubs	A woody plant with several stems.
deciduous	Shredding leaves in autumn.
evergreen	With leaves throughout the year
blossoms	Mass of flowers on a tree
fruit	Edible part of a plant containing seeds
leaf	a flat green part that grows in various shapes from the stems
waxy	resembling wax in texture
Flower	a coloured, sometimes scented, part of a plant that contains its reproductive organs
root	Underground base of a plant
stem	the main stalk of a plan

Plants

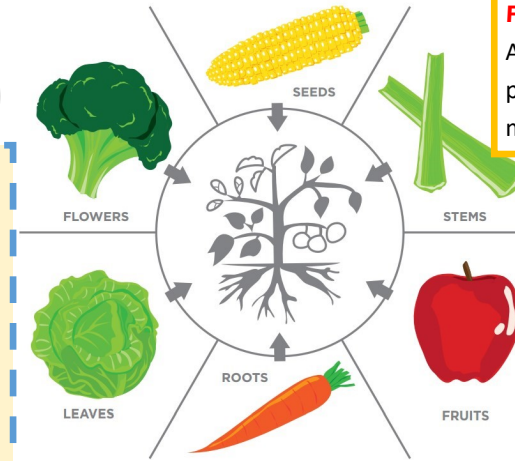
(trees, flowers)

Knowledge

Plants need light, water, soil and warmth to grow. Plants use light to make their own food. Plants have seeds, roots, stems and leaves.

Plants spread their seeds in different ways in order to reproduce. Some plants drop their leaves every year; they are called deciduous. Some plants keep their leaves all year; they are called evergreen.

We eat some types of plants. For example: root-carrots, stem celery, leaves-lettuce, seeds-peas
We eat food grown on farms or in orchards. Some food we eat comes from other countries e.g. Bananas.



FUN FACTS:
An average size tree can provide enough wood to make 170,100 pencils!

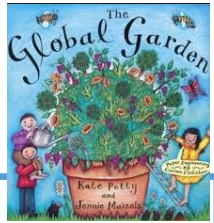


Gertrude Jekyll (1843-1932)
created some 400 gardens in the UK, Europe and America; her influence on garden design has been pervasive to this day. She ran a garden centre there and bred many new plants.

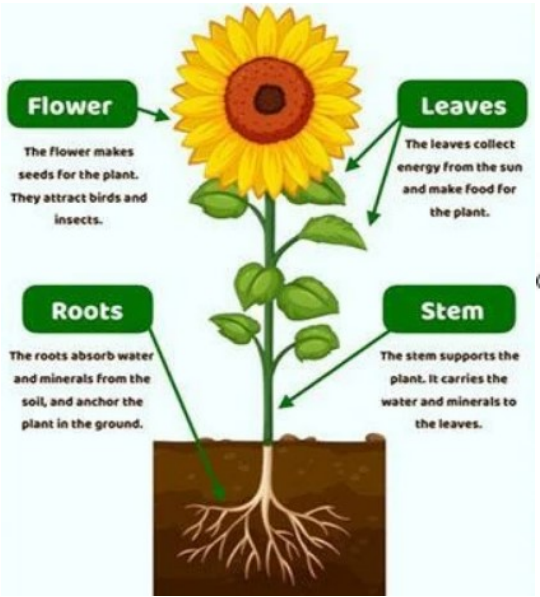


Wild Plant	
Dandelion	
Daisy	
Buttercup	
Clover	
Nettle	
Bramble	
Dog Rose	
Ivy	

Useful links: All About Plants Videos
<https://www.bbc.co.uk/programmes/articles/Mj5rhbTkHLZ3fbJzScyDvC/primary-science-plants>



- Learning Outcomes**
- identify plants by a specific criteria
 - name the petals, stem, leaf and root of a plant.
 - identify and name a range of common plants and trees. (including leaves, flowers (blossom), petals, fruit, roots, bulb, seed, trunk, branches, stem).
 - recognise deciduous and evergreen trees.
 - describe the parts of a plant (roots, stem, leaves, flowers).
 - sort some plants by size.
 - sort some animals by body covering, e.g. scales, fur and skin.



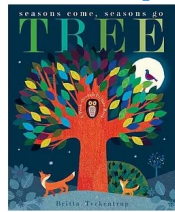
Month	Sept	Oct	Nov	Dec	Jan	Feb	Mar	April	May	June	July	Aug
Hours of sunlight	13	11	9	8	8	10	12	14	15	16	16	14

Seasonal Change (Autumn and Winter)

Word	Meaning
seasons	division of the year based on distinctive weather conditions
adapt	change something to suit different conditions
Migrate	move from one region or country to another
hibernate	sleep over the winter
Thermometer	An item used to measure the temperature
Temperature	How hot or cold it is
Sunshine	How sunny it is
Rainfall	How much rain has fallen (measured by a rain gauge)
Wind direction	Which way the wind is blowing
Wind force	How strong the wind is
Cloud cover	How thick the cloud will be

Useful links: Seasons explained
<https://youtu.be/r4Yi-CWB5Ik>

- ### Learning Outcomes
- identify and name the sources of light.
 - identify and name sources of light that we can see.
 - explain what darkness is.
 - compare sources of light. (brightest, dimmest, darker, lighter)
 - observe and describe shadows during the day.



Knowledge

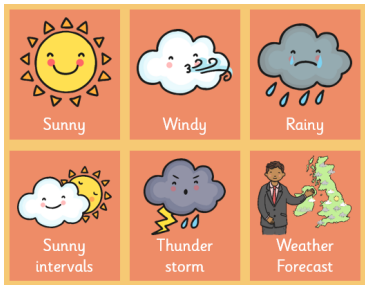
In many parts of the world, the year is made up of four different seasons. These are spring, summer, autumn and winter. Each has its own pattern of weather and varying hours of sunlight.

September, October and November are autumn months. In autumn it is normally wet and windy. Sometimes there are storms. In autumn it is often wet and windy. It is still sunny sometimes, but the temperature is cooler than summer. You need to wear warm, waterproof clothing, like a coat, a jumper and trousers. Sometimes you might need a scarf and an umbrella.

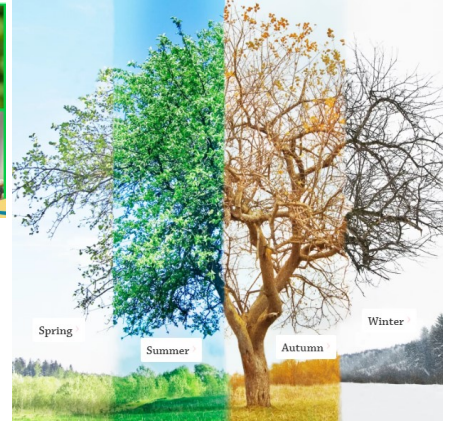
December, January and February are winter months. In winter it is normally cold and wet. Occasionally it snows but most of the time it is cloudy. In winter it is cold most of the time. Sometimes it rains but on cold days it might snow. It is often frosty in the morning.

In the winter you need to have warm clothing, like a hat, coat, scarf and gloves. When it is very cold you might need winter boots.

Animals adapt in lots of ways, some eat different foods and some even sleep through the winter. This is called hibernating.



FUN FACTS: In places like Arizona and Texas, the seasons don't change much. Some plants stay green all year round and it doesn't usually snow.



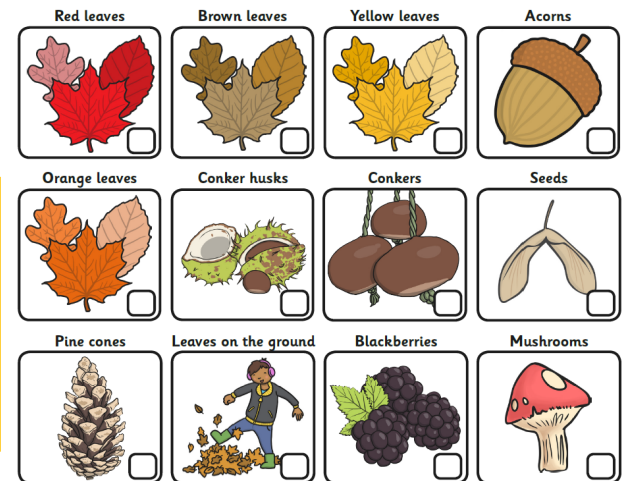
Autumn

September
October
November

Winter

December
January
February

Andres Celsius (1701-1744) was a Swedish astronomer who created a temperature scale, divided into small parts called degrees.



Key Vocabulary

Word	Meaning
Light	Energy producing brightness
dark	Having little or no light
daylight	Natural light from the sun
Dusk	the period of the day after the sun has gone below the horizon but before the sky has become dark
dawn	the first appearance of light in the sky
Sunrise	the rising of the sun above the eastern horizon each morning
sunset	the setting of the Sun below the western horizon in the evening

Seasonal Change

(Spring and Summer)



Spring Summer Autumn Winter

Knowledge

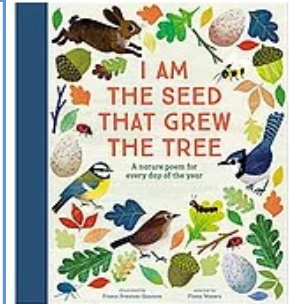
March, April and May are spring months. In spring it normally rains a lot. Often it is cold even when it is sunny. In spring the weather changes a lot. It can be sunny one moment and raining the next. Sometimes it even snows. In the spring you can often just wear jeans and a T-shirt but you need to have a jumper, a waterproof coat, an umbrella and wellington boots ready too!

June, July and August are summer months. In summer it is normally warm and sunny. In the summer you need to have light clothing to keep you cool and a sun hat and sunglasses to protect you from the sun. You might also need an umbrella!

It is much easier for them to find food and stay warm in the summer. The sun keeps them warm and stops their water and food from freezing. In the summer the sun rises earlier and sets later than in the winter. This means there are more hours of sunlight in the summer.

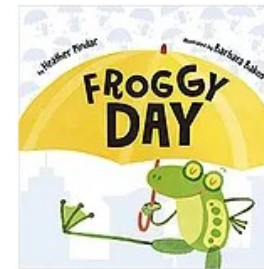
Daniel Gabriel Fahrenheit

In 1714, Dutch scientist and inventor invented the first reliable thermometer



FUN FACTS: June 21 marks the day when the Earth is turned the most toward the Sun. This is known as Summer Solstice. It is the longest, sunniest day of the year.

Useful links: Seasons Spring and Summer
https://www.youtube.com/watch?v=jmydkgYJzQg&feature=emb_logo



SUNRISE

- Occurs in the morning
- Occurs in the east
- Beginning of the day
- The sun is in the sky after sunrise

SUNSET

- Occurs in the evening
- Occurs in the west
- End of the day
- The sun disappears and it becomes dark

Learning Outcomes

Observe and describe weather associated with the seasons and how day length varies.
 Make tables and charts about the weather; and making displays of what happens in the world around them
 Describe and show how to make something move, e.g. push and pull.
 Know that the sun lights up the Earth and-stay safe when observing the sun.
 Describe how the sun moves across the sky.

Spring



March
 April
 May

Summer



June
 July
 August