Year Six

Power Pages for Home Learning

This booklet is designed to support children with learning they can do at home.

Power Pages

What are Power Pages?

In a nutshell, a Power Page is a summary of the key foundational knowledge for each topic studied, that we expect children to embed in their long term memories and to retain as they move through the school. We have Power Pages for each of the History, Geography and Science topics and year group pages for Music and Art. They were developed over a period of two years by the teachers, led by the Subject Leaders.

At school, the children's Power Pages are A4 and they are kept in a personal folder. Children use them continuously as they work through a topic. They return to them throughout the year to keep embedding those key facts and figures. When they move on to their next class, they will keep returning to this core knowledge.

Teachers run regular quizzes to check progress and to identify gaps in learning.

The end of year judgement as to whether your child has met the age related expectations for the year group is based partly on these quizzes, combined with how well they attain in lessons. This is what you will see on the annual report.

At the end of the year, children who score 98% in the Scholarship Quiz are awarded a Scholar pin badge to wear on their uniform for the next year.

What to do at home

You will receive a booklet once a term with updated power pages. Keep this one safe so that you can refer back to it!

Parents should help and encourage children to learn the content of the Power Pages. You might read them together, play 'can you find where it shows…' or quiz them on the contents once they have committed it to memory.

Home Learning for Year Six

Annual Overview of Topics

Autumn Term	Spring Term	Summer Term
The Tudors and The Thames **The human heart** **Electricity** **Icons**	**Space** **Mountains** **Martin Luther King—Equal Rights**	**Evolution** **Changing Climate** **Control Coding** **WWII** **Eric Ravilious**

Learning for the Autumn Term

Geography:
Lines of longitude; Meridian Line; mapping the Thames; 6 figure grid references

Science:
Circulatory system—heart, blood, blood vessels; diet and exercise; effects of smoking and drinking; electrical circuits—circuit diagram, voltage

EPR
Types of relationship; marriage; positive self esteem; democracy; tolerance

Fairtrade: poverty in textile industry;
Eco Awareness: energy use

Music:
Tudor music: Read music on treble clef; drone and ostinato; Motown: play two part songs; play from notation; Aeolian scale

Computing:
Online Safety; ArcGIS – Environmental Quality Survey; line graphs; blogging

RE
Psalms; called to service; vocations and Holy Orders; called by God—St Francis; Mary; Advent and Christmas

PE
Incorporate balls, ribbons into movements

DT:
Make a Tudor pie; make a drawbridge

History:
Henry VIII -Power and Monarchy; change and Continuity in life style; the Tudor Dynasty; schism from Rome

Art:
Self portraits; Tudor portraits
Texture and tone; religious icons

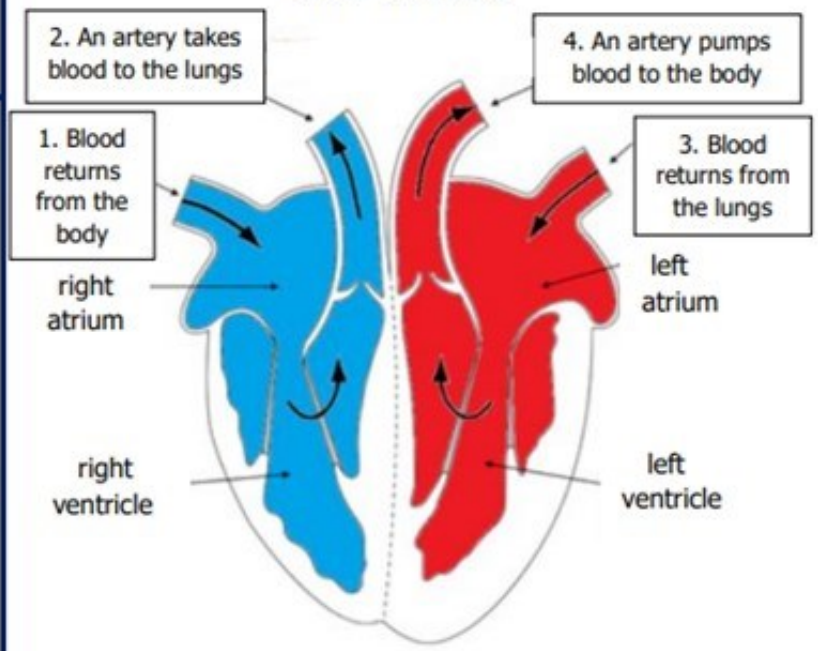
Drama and Dance:
Dialogue and questions in role; adapt and improvise movement; perform with confidence

Year 6 The Heart and Healthy Living

Facts I need to know

1. The **circulatory system** consists of the heart, blood vessels and blood.
2. The heart is an organ in the body and its job is to **pump blood** around the body.
3. **Deoxygenated blood** from the body enters the right atrium and then flows into the right ventricle.
4. **Oxygenated blood** from the lungs flows into the left atrium and then into the left ventricle.
5. The blood transports **nutrients**, **water** and **oxygen** round the body.
6. **The nutrients in the digested food** pass into the small intestine, where they are absorbed into the blood stream.
7. **Water** is absorbed from the small intestine into the bloodstream via blood vessels.
8. **Diet**, **exercise, drugs** and **lifestyle choices** impact how well our heart and lungs work.

The flow of blood through the heart



Keeping your Heart Healthy

1. **Exercise** causes your heart rate to increase as the muscles need more oxygen.
2. **Regular exercise** tones muscles, reduces fatty deposits from the body and strengthens the heart and lungs.
3. A **poor diet rich in fatty rich foods** can clog up arteries and veins, preventing the blood from flowing well.
4. **Smoking is harmful** to our health. The tar in cigarettes damages your lungs and can cause lung disease.
5. **Alcohol** slows down your reactions. Heavy drinking damages your liver, heart and stomach.
6. **Drugs** prescribed by a doctor are safe. Other drugs can be addictive and cause health issues and death.

Key Vocabulary

Circulatory System	The body system that circulates blood around the body.
Heart	The heart has four chambers, two atrium and two ventricles, which the blood flows through.
Blood vessels	Narrow tubes which our blood flows through. They are called arteries, veins and capillaries.
Arteries	Carry oxygenated blood from the heart to the rest of the body.
Veins	Carry deoxygenated blood from the body to the heart.
Capillaries	Nutrients, oxygen and carbon-dioxide are exchanged via the capillaries.
Lungs	Fill with air when you breathe. They remove carbon-dioxide from the blood and add oxygen to the blood.
Heart Rate	The number of times the heart beats in a minute (bpm).
Resting heart rate	The number of times your heart beats per minute when you are not active. Typically 60 – 100bpm.
Pulse	Every time the heart beats, it can be felt as a pulse in an artery close to the skin in your neck or wrist.
Aerobic activity	Exercise that makes your heart beats faster and increases your breathing rate.

Diet

Carbohydrates give all cells energy. It also protects your muscles because if the body does not have enough energy it has to the use the protein tissues in muscles instead. This weakens muscles in the body.

Water helps control your temperature via sweating.

Proteins are needed to create muscles and organs.

Fibre: Keeps your bowels - which include your large intestine healthy.

Fats are needed for every cell membrane - the membrane holds the cell together. Brain tissue is rich in fat. Fat is used to create hormones.

Water half the weight of a human body is water! You can survive without food for longer than you can water. 92% of the volume of blood is water! Without blood your body would not be able to transport nutrients and oxygen.

Protein is needed to make haemoglobin – the part of the red blood cells that carry oxygen.

Exercise

Helps you fall asleep faster and deeper so you are better rested.

Stimulates and releases **brain** chemicals – for example endorphins leave you feeling happier and serotonin helps keep your mood calm and leaves you feeling relaxed.

Increases the number of air sacs (alveoli).

Increases the amount of oxygen delivered to and carbon dioxide removed from the body.

Joints are more stable.

Bones increase in width and density (The denser the bone, the stronger it is).

Increases the number of **capillaries** in the **muscles**.

Strengthens **heart** muscle.

Strengthens **diaphragm** and **intercostal muscles**.

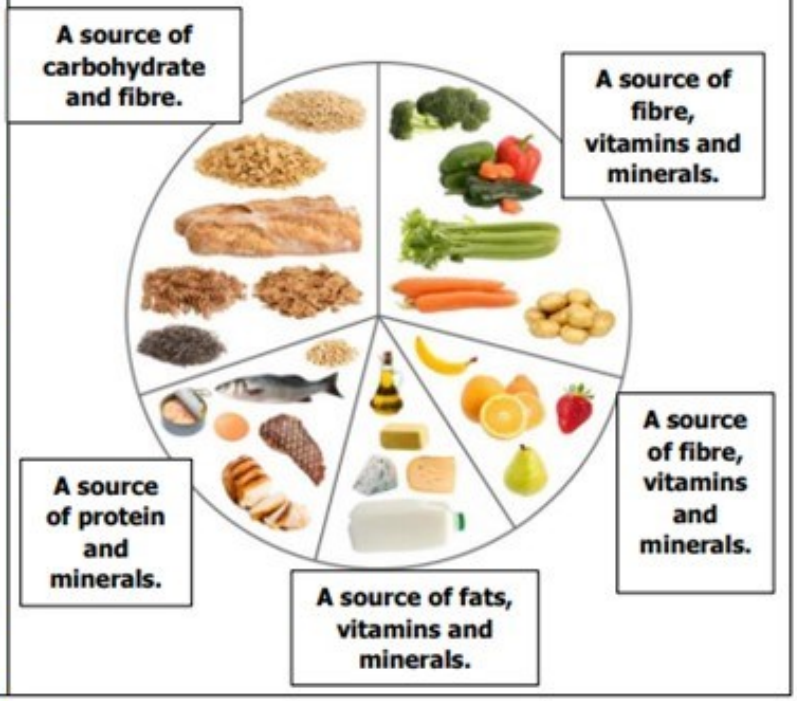
Strengthens **muscles**.

When you exercise your body increases the circulation of blood – this means that nutrients are delivered and waste taken away faster which improves parts of the body like skin.

Increases the volume of blood and red blood cells.

Food sources

Carbohydrates (1)	Carbohydrates are found in a wide array of both healthy and unhealthy foods— bread, potatoes, pasta, rice, cereal, biscuits and pastries.
Proteins (2)	Lean meats – beef, lamb, pork, chicken, turkey. Fish and seafood – fish, prawns, crab Eggs. Dairy products – milk, yoghurt, cheese
Fats (3)	Found in fatty meat, sausages and pies. Also in dairy products such as butter, cheese and cream. It is also in cakes, biscuits and chocolate confectionery.
Fibre (4)	Fibre is found in wholegrain breakfast cereals, whole-wheat pasta, wholegrain bread and oats. It is in fruit such as berries, pears, and oranges and vegetables such as broccoli, carrots and sweetcorn. It is also in peas, beans, nuts and seeds.
Vitamins (5)	**Vitamin A** Eggs, milk, carrots and sweet potatoes. **Vitamin C** Oranges, strawberries, tomatoes, kiwi, broccoli, red and green peppers. **Vitamin E** Avocados, nuts, seeds, whole-grain foods and dark leafy greens
Minerals (6)	Including calcium and iron can be found in meat, cereals, fish, milk and dairy foods, fruit and vegetables and nuts.

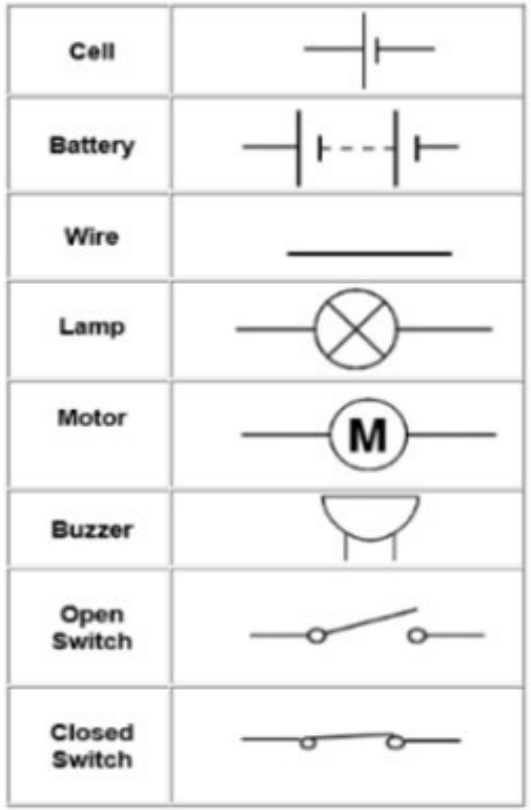


Year 6 Electricity

Facts I need to know

1. There are **universal symbols** used for components when drawing circuit diagrams.
2. If there is a **gap or break** in a circuit, then electricity cannot flow.
3. **Switches** control components in circuits.
4. More batteries or a higher voltage battery gives **more power** to flow through the circuit and so a bulb is brighter and a buzzer is louder.
5. Fewer batteries or a lower voltage will give **less power** to the circuit and so a bulb is dimmer and a buzzer is quieter.
6. **Lengthening the wires** in a circuit means that is harder for the electricity to flow because there is **more resistance.**
7. Adding more **components** to a circuit means the electricity has to be shared and so lamps are dimmer and buzzers are quieter.

Symbols used in Circuit Diagrams

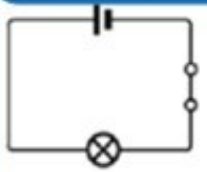


Key Vocabulary

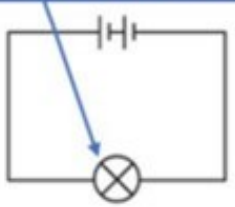
Circuit	A path that an electric current can flow around.
Circuit symbol	A symbol used to represent various electronic components in a diagram of a circuit.
Cell	A single electrical energy source.
Battery	A device consisting of two or more cells.
Voltage	The size of the force that makes the electric current flow through the wires. The greater the voltage, the more current will flow.
Switch	An electrical component that can make or break an electrical circuit. When a switch is open (off), there is a gap in the circuit and electricity cannot flow around the circuit.
Current	The amount of electricity flowing through a circuit. It can be measured in amps using an ammeter.

Explaining what happens in circuits

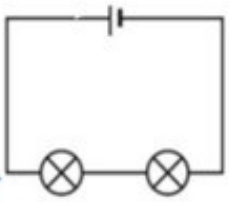
When we have one bulb and one cell, it is called normal brightness



The bulb in this circuit will be brighter.



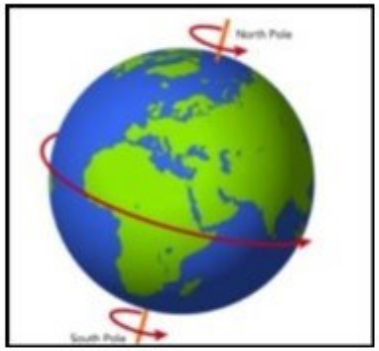
Adding more bulbs to a circuit will make each bulb less bright.



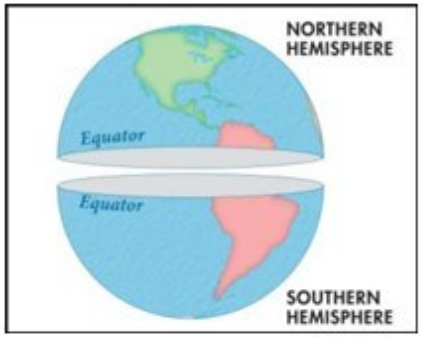
Year 6
Where in the World?

The UK and Ireland

The **South Pole** is in **Antarctica.**
The **North Pole** is in the **Arctic**.



The equator is an imaginary line which goes around the centre of the earth. It divides it into the Northern and Southern Hemisphere.



The region of Earth's surface that is closest to the Equator is called the tropics. Two imaginary lines that circle the globe mark the boundaries of the tropics. The line called the Tropic of Cancer marks the northern edge. The line called the Tropic of Capricorn marks the southern edge.

The Seven Continents and Five Oceans

Major Cities of the UK

Waters around the UK

The World's Mountain Ranges

UK Rivers

River Thames runs though **London.**

River Mole runs through **Leatherhead.**

Hogsmill River runs through **Ewell Village.**

Cuckmere River runs through **Sussex.**

River Severn runs through **England** and **Wales.**

River Tay runs through **Perth** and **Dundee** in **Scotland.**

River Trent runs through **Nottingham** in **England.**

River Mersey runs through **Liverpool** in **England.**

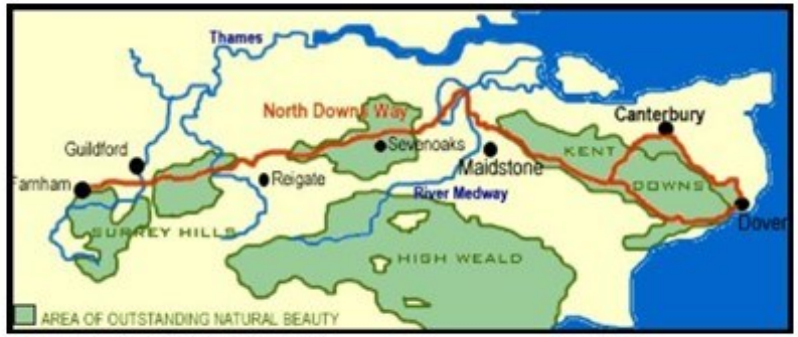
World Rivers

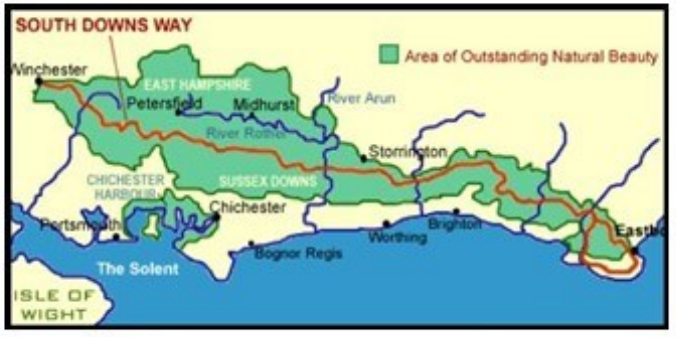
River Amazon runs though **Brazil.**

Counties in the South-East of England

Regions of the UK

The **North Downs and South Downs** are parallel ranges of chalk hills in **SE England**. They rise to 965 ft (294 m) at **Leith Hill, Surrey**. The North Downs range extends 160 km from near Farnham, Surrey, to the White Cliffs of Dover, Kent. The South Downs extends 100km from near Winchester, Hampshire, to Beachy Head,

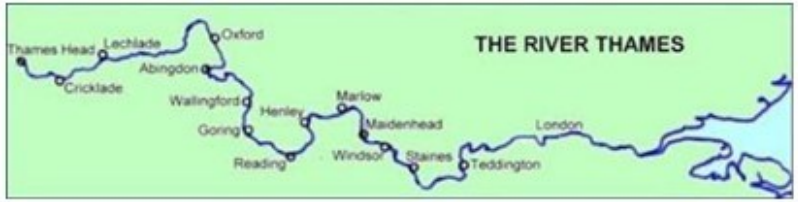




Year 6 Geography
The River Thames

Facts to read and know

1. A **river** begins at its **source** which is in the mountains and ends when it flows into the sea which is known as the **mouth**.
2. The **River Thames** is a river that runs through the South East of England including London.
3. The source of the River Thames is called **Thames Head.** It is a is a group of seasonal springs, near the village of **Coates in the Cotswolds.**



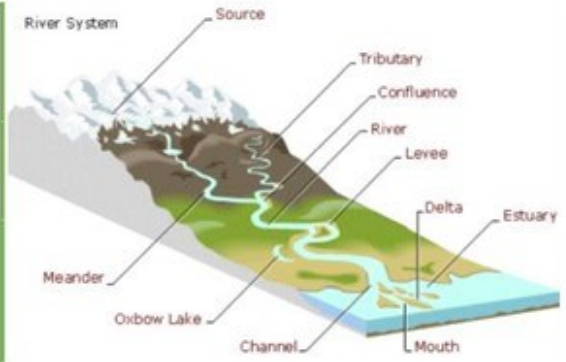
Key Sites along the River Thames





Key Vocabulary

Tributaries	Smaller rivers and streams that join the main **channel** of a river.
Floodplain	Flat area around a river that is covered in water when it floods— often good agricultural land.
Oxbow lake	A meander which has been cut off from the main river over time. It is often horse-shoe shaped.
Meander	A bend in the river.
River mouth	The point where the river flows into the sea.



Time Zones

1. A **time zone** allows everyone to have sunrise in the early morning and sunset at night in relation to the rotation of the Earth.
2. The Royal Observatory in Greenwich is the site of the Greenwich **meridian line**.
3. The **meridian line** in **Greenwich** (known as the **Greenwich meridian**) represents the **Prime Meridian** of the world, Longitude Zero (0° 0' 0").
4. Greenwich Mean Time is a **time zone line** also known as **GMT.**
5. Time zones lie between **lines of longitude.**
6. **BST** stands for British Summer Time, when we put the clocks forward by one hour from Greenwich Mean Time.

Longitude	A distance measured in degrees **east or west** of an imaginary line that runs from the north pole to the south pole and passes through Greenwich, England (**The Meridian**).
Latitude	The distance **north or south** of the **Equator** measured in degrees.
Grid figure	Is a geographic coordinate system that defines locations on maps using numbers.

Year 6 History Tudors

Facts to know about monarchy

Wealth and Power

An important aspect of successful **monarchy** was and is **wealth**. Wealth brings **power and influence**. Power shows you are a strong monarch.

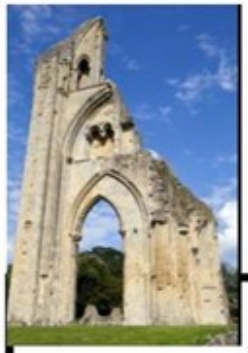
A **monarchy** is a form of government that has a single person at its head. Monarchs use such titles as king, queen, emperor, or empress. Most monarchies are hereditary.

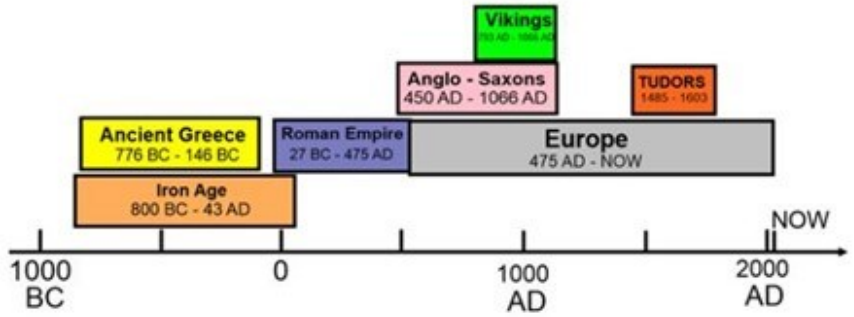
Henry VIII owned over **60 residences** including Hampton Court, one of his favourite.

Food was a key symbol of wealth. Henry VIII had to show his noblemen that he was rich.

- Being served a peacock or swan—a sign of wealth.
- Spices from the Orient had travelled half way around the world—this was another sign of wealth.

The **Reformation in England** led to the **dissolution of the monasteries** and their dismantling.

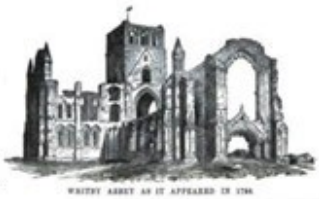




Monarchs need power -The Reformation

The many reasons for the Reformation in Europe.

1. **England broke away from Rome**. This means that England stopped being Catholic and stopped looking to the Pope for leadership. Why this happened is complicated…there were many reasons:
2. **Henry needed a son to be his heir** and **Catherine of Aragon** could not produce a son. The Pope would not allow Henry VIII to divorce Catherine as it is against the Catholic faith.
3. The **Reformation** was the change from the Pope being the Head of the church to Henry being the Head. The new church was the **Church in England.** Under **Elizabeth I,** it became the **Church of England.**

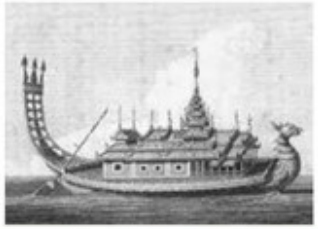


4. Other countries broke away from the Roman Catholic Church at about the same time. Many people were annoyed at the wealth of priests and their extravagant lifestyles. **They destroyed churches in anger.**

Pope Leo X. Pope during the Break from Rome.

Hampton Court

1. It has over 1000 rooms and 750 acres of gardens and parkland.
2. 600 people lived and worked there.
3. Henry could travel from his palace in London to Hampton Court



Sequence of Events										
	22 April 1509 Henry VIII is crowned King of England	**1509-1533** Catherine of Aragon is Queen	**Feb 10th 1516** Mary is born	**1533-1536** Anne Boleyn is Queen	**Sept 7th 1533** Elizabeth is born	**1536-1537** Jane Seymour is Queen	**October 12th 1537** Edward is born	**1540-1540** Anne of Cleves is Queen	**1540-1542** Catherine Howard is Queen	**1543-1547** Catherine Parr is Queen until Henry dies.

1.Catherine of Aragon:

She became his first wife when her husband Arthur, Henry VIII's brother died. She bore Henry several children but only Mary survived. Henry needed the Pope's permission to divorce Catherine. He refused so Henry became head of the church. Henry divorced Catherine because she was too old to give him a son.

2.Anne Boleyn:

Henry fell in love with Anne. She was young and pretty. The marriage lasted for three years 1533 – 1536. She gave Henry one child- a daughter called Elizabeth. Anne was accused of having lovers and put on trial. The trail was not fair as people did what the king told them. She was executed.

3.Jane Seymour:

Henry married Jane because she was a plain and simple girl. They were married for one year 1536 – 1537. She gave Henry a child. Edward the son he wanted so much. Jane became ill and died. Henry was heartbroken at her death.

4.Anne of Cleves:

Henry married Anne in 1540 to form a friendship (alliance) with Germany. Anne was ugly and Henry did not like her.
The marriage only lasted for seven months.

5.Catherine Howard:

Catherine was young and pretty and the King was old and fat.
They were married for two years 1540 – 1542. The King liked young and pretty women around him. Catherine soon had a lover.
She was executed.

6.Catherine Parr:

Henry and Catherine were married for four years 1543 – 1547.
The king was old and sick and needed somebody to look after him and his children.
In January 1547 Henry died.

The heirs of Henry VIII

Edward VI

Mary I

Elizabeth I

Monarchy and Power

For Henry VIII, his time as a monarch was focused heavily on securing an heir for his **dynasty**— the Tudor family line.

Families like the Boleyns, the Seymours and the Howards wanted power and so tried to influence the King.

His father Henry VII was the first Tudor king. The dynasty only lasted until the death of Elizabeth I. The Stuarts then took over.

Symbols in Clothing

Wealth and power. Look at Elizabeth I—her clothes make her look 'big' and powerful. Her clothes are covered in **expensive jewels.**
Edward VI is wearing ermine—**an expensive fur.** He was a sickly child, but his clothes make him look **stronger**.

Year 6 Music

Facts to read and know

RENAISSANCE MUSIC

Gaudete has a medieval feel with flowing melodies and changing rhythmic time. it was written in the 16th Century.

TUDOR RENAISSANCE MUSIC

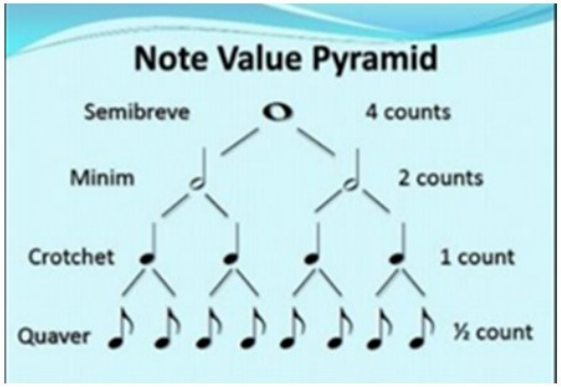
William Byrd wrote "La Volta" It uses a drone, ostinato and simple dance tune.

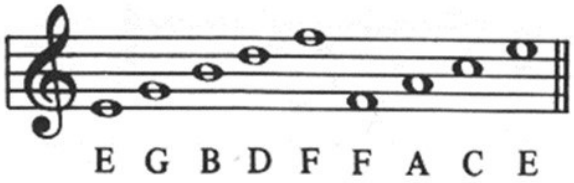
CLASSICAL MUSIC: 1750-1800

Music forms such as the symphony were developed by composers like Mozart, Haydn and Beethoven.

ROMANTIC MUSIC: 1800s

Beethoven wrote the first romantic music. He expressed feelings and did not worry about what the audience thought. Tunes became longer and stronger with mood changes.

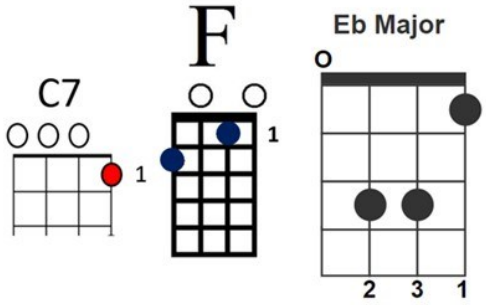




Every **G**ood **B**oy **D**eserves **F**un

F A C E

Ukulele chords:



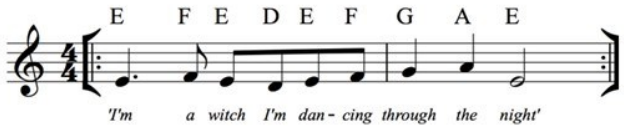
Key Vocabulary

Medieval 	Music in Europe up to 1400 AD Usually single flowing melody. Secular: folk songs Religious: Gregorian Chants
Renaissance 	Music in Europe up from 1400 AD up to 1600 AD, between the middle ages (Medieval) and Baroque times.
Motown	A record label known for African -American soul music, very popular in the 1960s
Major Scale	Made of 7 notes, the simplest is CDEFGAB e.g. white piano notes
Minor Scale	Made of 7 notes, sounds "sad" compared to the major. CDE(flat) FGAB
Diminuendo	getting quieter >
Ensemble	A music group performing together.
Sequences	Notes repeated in an order.
Critique	Understanding and talking about what is happening e.g. in music.

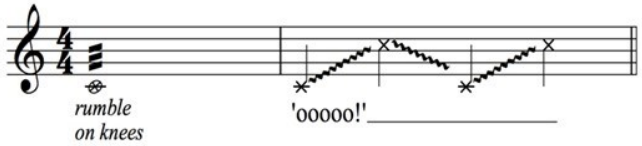
ROMANTIC RUSSIAN COMPOSER:

Modest Mussorgsky (1839-1881)

"Night On A Bare Mountain" is a tone poem—the music describes a story of witches.



Use the timbre of instruments or voices for effect.

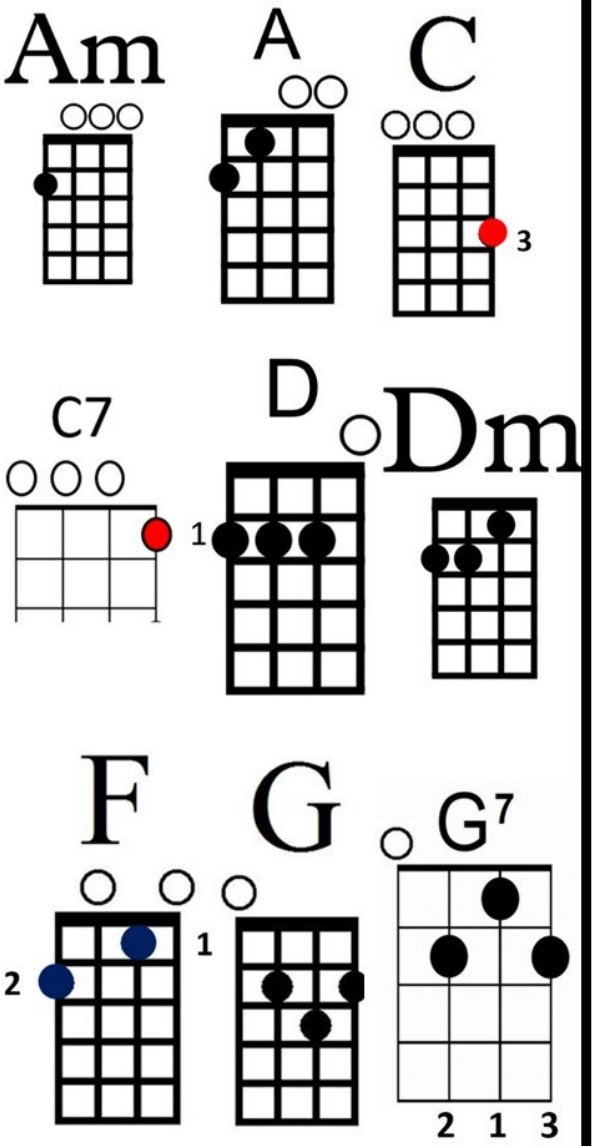


Structure music into different sections

Spell - Dance - Dawn



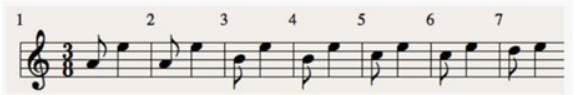
UKULELE CHORDS



FILM COMPOSER:

HANS ZIMMER born 1957

Zimmer loves using technology such as synthesizers and computers. His works are notable for integrating electronic music sounds with traditional orchestral arrangements. His film scores include "The Lion King" and "Pirates of the Caribbean". Zimmer also wrote "Interstella" which is a film score about the vastness of space, the importance of human emotions and the place humans occupy on planet Earth. He wrote a simple melody in a minimalist style:

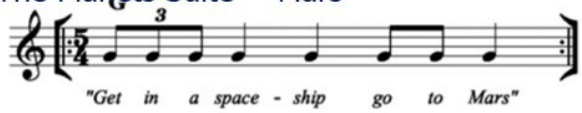


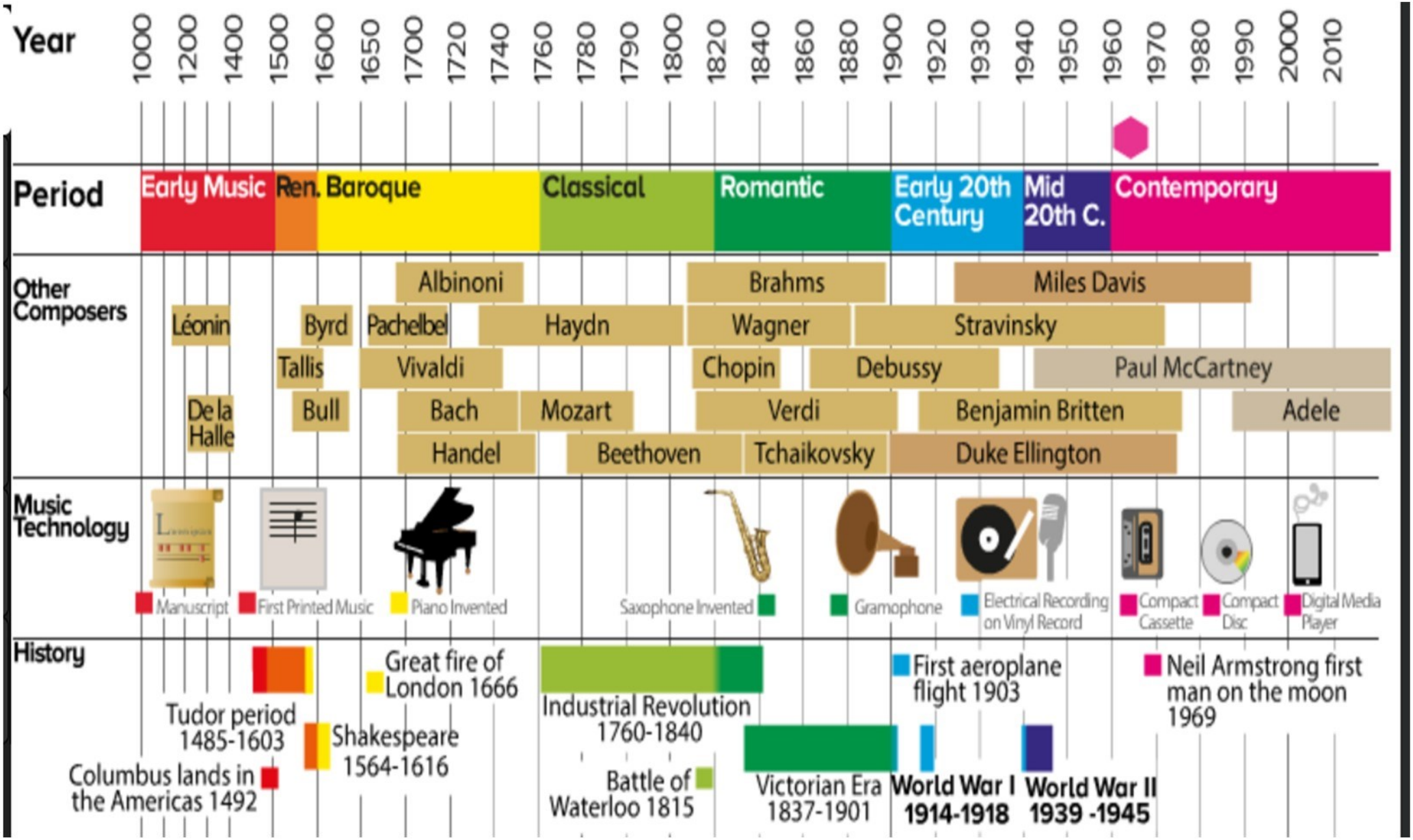
We learnt to create small motifs and play them in different ways e.g. longer/shorter note duration using IT.

ENGLISH COMPOSER:

GUSTAV HOLST (1874—1934)

"The Planets Suite" - Mars





Periods of music history:

Medieval Early music—Renaissance—Baroque—Classical—Romantic—Early/Mid 20th Century— Contemporary

Year 6 Art History

Eric Ravilious

- 1903 - 1942.
- British **painter, designer, book illustrator** and **wood-engraver**.
- He grew up in East Sussex, and is known for his **watercolours** of the **South Downs** and other English landscapes.
- He served as a **war artist**, and died when the aircraft he was in was lost off Iceland.

Art technique: painting.

He used:
⇒ muted colours
⇒ natural colours
⇒ soft lines
⇒ shades of green to make the landscape come alive.

Painters looked at before: **Vincent Van Gogh, David Hockney, JMW Turner, Alma Thomas, Stephen Wiltshire, Katsushika Hokusai, Joan Miró, Impressionists (e.g. Claude Monet) and Pointillists (e.g. Georges Seurat).**

Andy Goldsworthy

- British **sculptor and photographer** born in 1956.
- Creates **site-specific installations** involving **natural materials** (e.g. leaves) and the passage of time.
- When he has created a piece of artwork, he takes a photo of it, and then leaves it for the wind and rain to **blow and wash it away naturally.**

Art technique: sculpture and installation

Sculptors looked at before: **Alexander Calder.**

Tudor Art and Hans Holbein

- In **Tudor times,** only the **very rich** could afford to have their portraits painted. People used portraits as a way of showing their **wealth, status and power.**
- People often dressed in fabrics in **rich, dark colours** for portraits, as these were the most **expensive** dyes.

- **Hans Holbein the Younger** was born in **Augsburg, Germany in 1497/98.** He is best known for his work as the court artist during the reign of **King Henry VIII**, having created many famous portraits of the Tudor court.

Art technique: painting.

Historical art looked at before: **Cave paintings at Lescaux, Roman mosaics, Ancient Egyptian, Ancient Greek** and **Ancient Mayan art.**

Icons

- Within icons, there are a variety of symbols and colours with different meanings.
- E.g. **Light:** Light always emanates from a Holy person in an icon. The holy person is at the centre. There are no shadows.
- Icons have **frames** because it is like looking into **heaven** through a window.
- The **iconostasis** is the screen in the church where icons were **placed.** It is between the **nave** and the **altar.**

Art technique: painting.

An **icon** is a religious work of art.

Iconographers created the special art and were holy people doing God's work.

Year 6 Art Skills

Key Words	
Marbling	Colouring or marking that resembles marble.
Installation	Large-scale, mixed-media construction artwork that is often designed for a specific place or to only be in place for a short period of time.

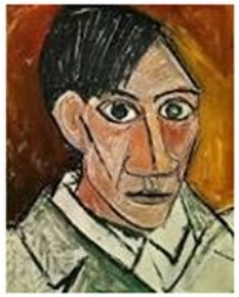
Perspective helps the viewer to know what to focus on to create space and depth.

Self-portrait

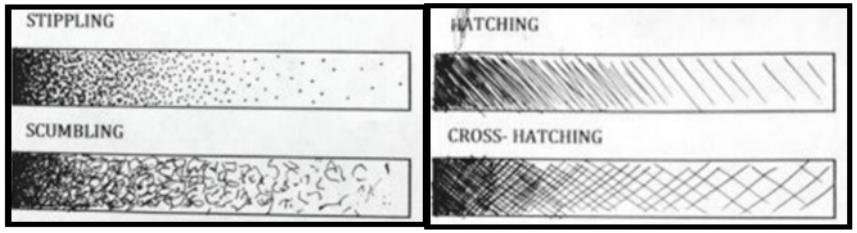
It is a representation of an artist that is drawn, painted, photographed, or sculpted by that artist. It may be a portrait of the artist or within a group of people.

Self-portrait without beard
Vincent Van Gogh (1889)

Self-Portrait with Thorn Necklace and Hummingbird
Frida Kahlo (1940)



Self-Portrait
Pablo Picasso (1907)



Collagraph printing

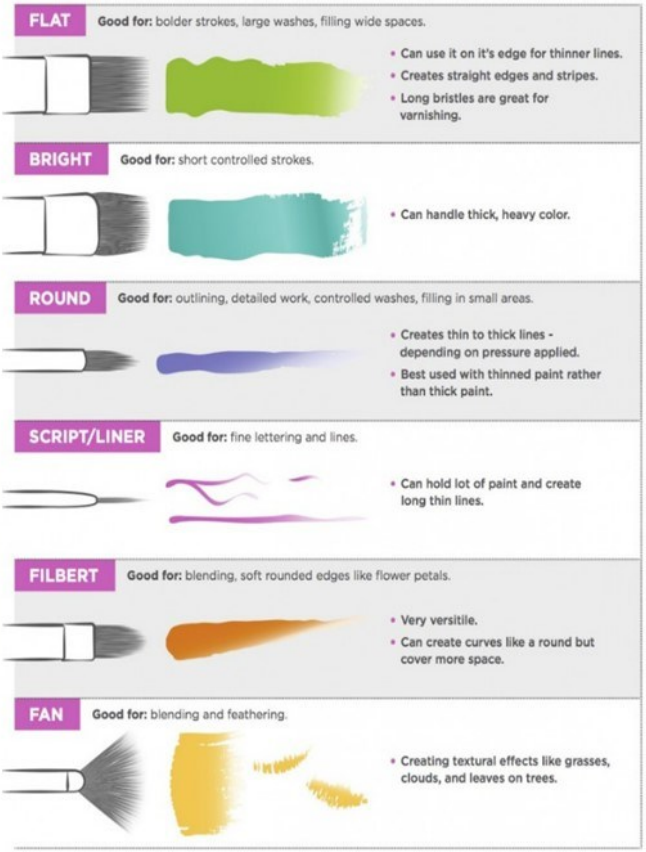
Collagraph printing is a print-making process where a variety of textures and materials are placed in a collage on a plate (e.g. cardboard) to create a printing block.

Printmakers looked at before: **Katsushika Hokusai, William Morris** and **Andy Warhol.**

Colour Theory

The Colour Wheel

Brush Chart



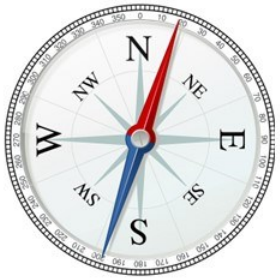
Qué tiempo hace hoy?

What is the weather today?

Year 6 Spanish

Autumn

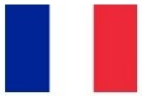
El clima



Norte,
sur,
este
oeste,
noroeste,
noreste,
sureste,
suroeste,
centro.

Inglaterra 

Alemania 

Francia 

Irlanda 

España 

Hace frío,
hace calor,
está lloviendo
está nevando,
hace sol,
está nublado

The Seasons

El verano,
el otoño,
la primavera,
el invierno.

Qué tiempo hace en Malaga?

What is the weather in Malaga?

Learning for the Spring Term

Geography: Features of mountains, data logging, height of mountains, water cycle. **Science:** Solar system, order of planets, Katherine Johnson, characteristics of materials, conductors and insulators, **EPR:** Resisting peer pressure, the impact of stereo-typing, radicalisation, racism, aggressive behaviour, safe internet use, empathy and integrity. **PE:** Balance and counterbalance in gym.	**Music:** Space inspired music, orchestral settings, Holst's The Planets, Night on Bare Mountain **Computing:** Online safety, screen time, coding, debugging **RE:** Death and New Life: I am the Bread of Life, imagery of the Grain of wheat story, messages taken from religious art, Books of the Bible	**DT:** sewing a blanket stitch, build a Billy bookcase. **History:** Moon landing in 1969, Hubble Telescope, Martin Luther King **Art:** Inspired by the Hubble Tele-scope images, mountain water colours **Drama and Dance:** Improvisation in drama, freeze frames and voices, adapt scenes. In dance, follow a routine, remembering sequence. **Eco Awareness:** impact of humans on mountain landscapes.

Year 6 Materials

Facts I need to know

1. Heat always travels from a warmer area to a cooler one.
2. **Conductors** are materials that allow heat or electricity to travel through easily.
3. **Insulators** are materials that do not let heat or electricity to travel through them.
4. **Thermal conductivity** is how well a material allows heat to pass through it.
5. We use the **thermal conductivity** property of materials in our everyday lives.

Insulators of Heat

Wood, plastic and some fabrics are good thermal insulators. Thermal insulators **can keep heat out or away** so that something stays cold.
Thermal insulators **can stop heat from escaping** so something stays hot.

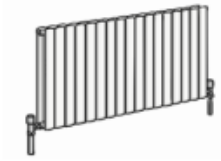
Oven gloves stop heat travelling to your hands when you take something very hot out of the oven.

A coat, hat, scarf and gloves stop the heat from your body travelling through to the air outside, keeping you warm.

Conductors of Heat

Metals are good thermal conductors.
Everyday items are made of metal that need **heat to travel through them**.
Eg. A saucepan, cooking foil or a radiator.

When you cook some food in a saucepan, you need the heat from the ring on the cooker to get through the saucepan to the food.



When your radiators are on heat escapes from them and heats up the room.

Key Vocabulary

'therm'	Therm comes from the Greek word meaning heat. The root word is found in – • thermometer • thermal • thermostat • hypothermia • thermos flask
Thermal conductor	Materials that allow heat to travel through them easily.
Thermal insulator	Materials that do not allow heat to pass through them easily.

Grouping Materials as Conductors and Insulators

	Good Conductors allow energy to pass through	Insulators stop or slow down energy
Electrical	Metals e.g. copper, silver, gold, iron, steel, aluminum tap water	rubber wood plastic glass paper cotton distilled water polystyrene fabric
Thermal	Metals e.g. copper, silver, gold, iron, steel, aluminum	plastic wood rubber fabric polystyrene

Year 6 Space

Facts I need to know

1. The Sun, Earth and Moon are approximately **spherical bodies**.
2. The Earth is the third planet from the Sun.
3. The Sun is the star at the centre of our **solar system**.
4. The Moon is the **natural satellite** of the Earth.
5. The Earth spins on its **axis** and **orbits** the Sun.
6. The Moon **orbits** the Earth and the same side of the moon always faces the Earth.
7. The Sun appears to move across the sky but the Sun does not move, it is due to the Earth's **rotation**.

The Planets

The eight planets in our solar system all orbit around the Sun.
This is their order starting from nearest the Sun:
Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and **Neptune**.

The nearer a planet is to the Sun, the shorter the length of its orbit.

A Mnemonic to remember the order of the planets:

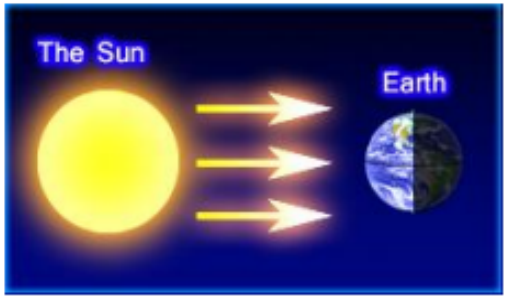
My **V**ery **E**asy **M**ethod **J**ust **S**peeded **U**p **N**aming PLANETS.

Key Vocabulary

orbit	The curved path of an object around a star, moon or planet.
axis	An imaginary line about which a body rotates.
solar system	The sun and all the planets that orbit around it.
rotate	When an objects rotates, it turns (spins) on its axis.
satellite	Any object or body that orbits something else.
spherical	Shaped like a sphere.

Day and Night

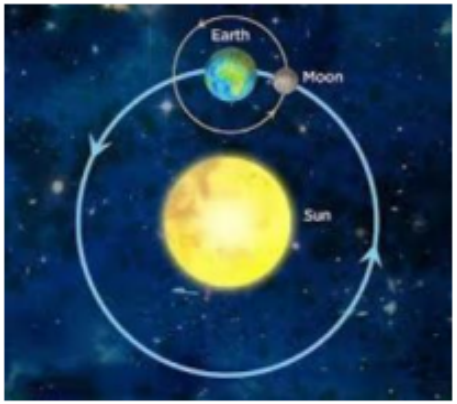
We have day and night because the Earth **spins on its axis** and it takes **24 hours** to spin around once completely.



It is **day** for half of the Earth facing the sun.
It is **night** for the half of the Earth facing away from the sun.

Our Year

The Earth **orbits** the sun.
It takes **365 ¼ days**.



The Moon

It takes the Moon **27.3 days** to make a complete orbit around the Earth, but because the Earth is moving around the sun at the same time, it takes the moon **29.5 days** to go through its eight different 'phases' – a **lunar month**.

As the moon orbits the Earth, the Sun lights up different parts and so the moon appears to be different shapes.

Year 6 History
To Boldly Go

Facts to know

In 1969, NASA achieved the goal of getting the first person to the Moon with the Apollo 11 mission.

Did you know...

The footprints made by **Armstrong** and **Buzz Aldrin** are still on the Moon.

Neil walked a distance of about **60 metres** on the surface of the moon —that's roughly the length of 11 Asian elephants!

Space debris, known as space pollution, is defunct artificial objects in **space**. They pit space craft at risk.

Neil Armstrong was the first person to walk on the moon.

As he stepped onto the moon, he famously said the words, **"That's one small step for man, one giant leap for mankind."**

Neil Armstrong and **Buzz Aldrin** landed on the moon in the Lunar Module on **July 20th 1969 at 8:17pm.**

Michael Collins orbited the moon in the Command Module.

Saturn 5

Neil Armstrong (1930-2012) went to space twice: The first was Gemini 8 in 1966. The second was Apollo 11 in 1969.

Michael Collins (1930-2021) went to space twice: The first was Gemini 10 in 1966. The second was Apollo 11 in 1969.

Buzz Aldrin (1930) went to space twice: The first was Gemini 12 in 1966. The second was Apollo 11 in 1969.

Key Vocabulary

NASA	The National Aeronautics and Space Administration. It is based in the US and runs the space program as well as conducting aeronautics and space
Aeronautics	Science of studying, designing and manufacturing air flight.
Lunar	Anything relating to the Moon
Orbit	The path of an object or spacecraft around a star, moon or planet.
Telescope	An optical instrument designed to make distant objects appear nearer.

The Hubble is a space telescope which was launched in 1990. Pictures captured by Hubble are used by scientists to learn more about space such as black holes, stars and comets. Sometimes it needs repairing and that means a space walk!

First space flight ever

On **October 4, 1957**, the Soviet Union launched Sputnik 1, the first satellite of Earth.

On **November 3, 1957,** the Soviet Union launched the second satellite, Sputnik 2, and the first to carry a living animal, a dog named Laika.

Year 6 Geography Mountains

Facts to read and know

1. The main mountain ranges in the world are:
   - Rockies—North America
   - Andes—South America
   - Himalayas—Asia
   - Alps—Europe

2. The highest mountain in the world is **Mount Everest** at 8848m.

3. The highest mountain in the UK is **Ben Nevis**, 1345m above sea level, located in Scotland.

4. The highest mountain in Wales is **Snowdon**; it is 1085m above sea level.

5. The highest mountain in England is Scafell Pike at 978m above sea level (asl).

Key Mountains and their heights

Mount Everest - 8848m (Nepal/China)

McKinley/Denali - 6190m (Canada)

Mount Kilimanjaro - 5895m (Tanzania)

Mount Fuji - 3776m (Japan)

Mount Kosciuszko - 2228m (Australia)

Aconcagua — 6961m (Argentina)

Contour lines.

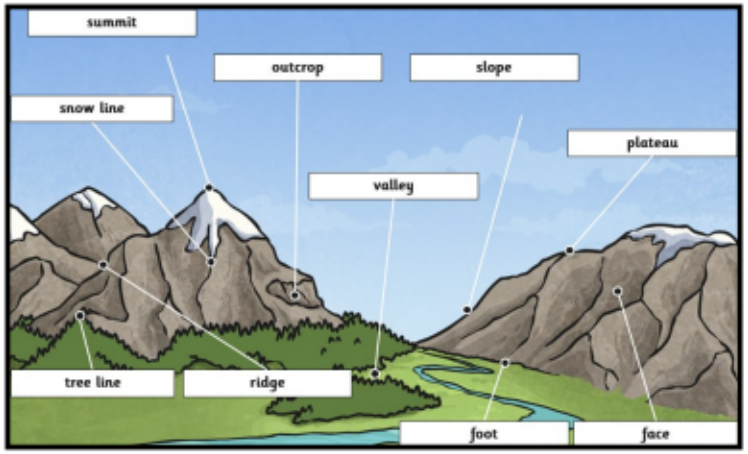
Mountains are identified on maps using **contour lines.**

Contour lines show where land is the same height.

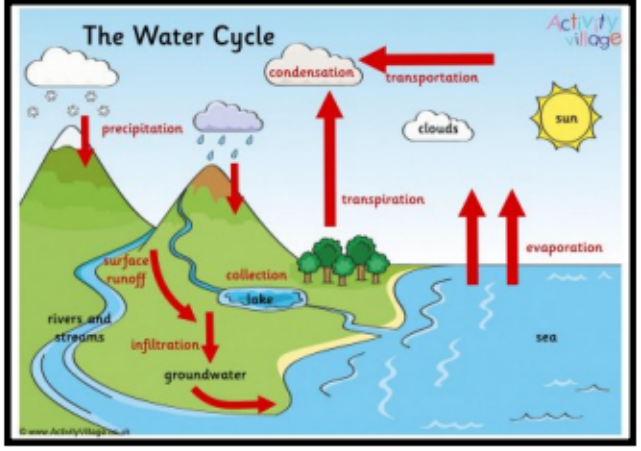
On most maps, contour lines are marked at **5m or 10m intervals**. The closer the lines are together, the steeper the slope will be.

Key Vocabulary

Mountain	Part of the landscape with steep slopes that rise over 300m or 1000 feet.
Range	An area of mountains or hills in a group or line.
Summit	The top of a hill or mountain, also known as the **peak.**
Valley floor	A valley is a long **depression, or ditch**, in Earth's surface The valley floor is where the valley is **most flat.**
Gradient	The steepness of the mountain side.
Tectonic Plates	Sections of the outer layer of the Earth's **crust** and the **upper mantle.**
Scree	Small loose small stones on the slope.
Altitude	The elevation of a point above sea level (asl)
Transpiration	The process of water movement through a plant and evaporates from the plant.



Edmund Hillary and Tenzing Norgay were the first known mountaineers to conquer Everest.



Year 6 Speaking Out Against Inequality— Martin Luther King

Facts to read and know

1. **Dr Martin Luther King (MLK)** was an American campaigner who tried to make sure that everyone was treated equally.
2. Many people had racist attitudes in America at the time. There were even laws meaning that **black/ minority people did not have the same rights as white people**.
3. A very brave man who believed in **non–violent protest,** a brilliant **public speaker**.
4. **Inspired by Rosa Parks**, the MIA in Montgomery had **boycotted the bus service.** They won a legal battle to have segregation banned on buses throughout the USA.
5. His most famous moment was in August 1963, during the "March on Washington" when he gave his '**I Have a Dream**' speech. Over 250,000 people attended this march in an effort to show the importance of civil rights legislation.
6. He was also the youngest person who won the **Nobel Peace Prize**.
7. He was **assassinated** in April 1968 for his beliefs. Martin Luther Day is now celebrated in the USA every January 17th.
8. **Martin Luther King** is known as somebody who played a key role in the movement towards people of different ethnicities and skin colours being **allowed equal opportunities.**

Martin Luther King's house was bombed in 1956

Martin Luther King leads a bus boycott.

Martin Luther King delivers his 'I Have a Dream ' speech.

Key Vocabulary

Boycott	To refuse to take part in something.
MIA	Montgomery Improvement Association
Non—violence	A belief that violence should not be used in protest or demonstrations.
Sit—in	A protest where people sit down and refuse to leave a place.
Campaigner	A person who works in an organised and active way towards a goal.
Prejudice	A liking or dislike for one rather than another especially without good reason.
Civil rights	The rights of citizens to political and social freedom and equality.
Discrimination	The unjust or prejudicial treatment of different categories of people, especially on the grounds of race, colour or gender.
Segregation	The practice of keeping people apart, e.g. people of different races. This is
Equality	The state of being equal, especially in status, rights or opportunities.

1929
Born in Atlanta, (USA) on the 15 January.

1947
Delivers his first sermon at his father's church.

5th December 1955
Rosa Parks refuses to give up her seat. MLK becomes improvement leader and leads a bus boycott.

20 August 1963
Delivers 'I Have a Dream' speech.

10 December 1964
Awarded Nobel Peace Prize.

4 April 1968
Martin Luther King is killed by James Earl Ray, a fugitive.

Year 6 Spanish

Spring

En la ciudad

Vocabulario:

Una iglesia :a church

Un cine : a cinema

Un Mercado :a market

Un colegio : a school

Un estadio : a stadium

Una estación de trenes

¿Qué hay en tu ciudad/ pueblo?

(What is there in your city/ town?)

Hay tres bancos en Epsom y muchas tiendas.

There are 3 banks in Epsom and a lot of shops.

¿Cómo vas al colegio?

How do you go to school?

Voy a pie y en tren.

(I walk and by train.)

Gramática:

Un /Una : A or an

El/la : the

Los/las : the (plural)

Voy: I go/am going

Vas : you go/going

Va: he/she goes/going

Los transportes:

Un coche(a car), un autobús (a bus), un tren(a train),

un avión (a plane),

a pie (by foot/walking).

Year 6 Spanish

Spring 2

Camino al colegio

(Journey to school)

Learning for the Summer Term

Geography: coastal erosion and sea level rising. **Science:** inheritance in humans, habitats, Charles Darwin, fossils, microbes. **EPR:** Human development and puberty, marriage vows, baby growth. Basic biology of human reproduction; -. Speaking out against injustice. **PE:** gymnastic sequences, synchronisation. RealPE games– applying skills to games, athletics.	**Music:** campfire songs, appreciation of Jazz, The "A" Train by Duke Ellington. **Computing:** Online safety, blog design. **RE:** sacrament of anointing the sick. Healing and Lourdes. Discipleship and mission. Martyrs of the Faith; social justice and dignity.	**DT:** make a bag from recycled materials; Year 6 bake off cake making; electronic control box to make a fairground work. **History:** WW2, the Holocaust. **Art:** Andy Goldsworthy sculpture, mono-printing, Ravillious. **Drama and Dance:** rhythmic movement to music, dramatic expression; end of year production.

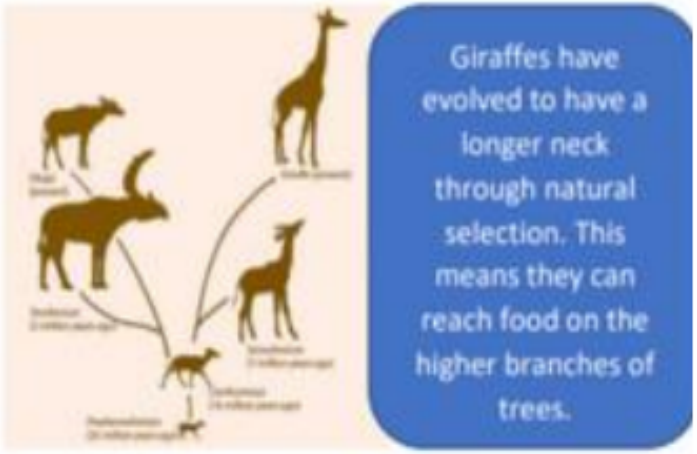
Year 6 Evolution and Inheritance

Facts I need to know

1. Living things produce **offspring** of the same kind who **vary** and are not identical to their parents.
2. **Adaptation** of living things to their environment, may lead to **evolution**.
3. Living things have changed over time. **Fossils** provide information about living things that inhabited the Earth millions of years ago.
4. **Charles Darwin** was a naturalist who came up with the modern theory of the evolution of species based on **natural selection**.
5. Micro-organisms, plants, and animals are **classified** into broad groups according to observable characteristics and based on similarities and differences.

How adaptation can lead to Evolution

If the environment changes, then animals and plants with variations that are **best suited**, will survive in greater numbers. These living things then reproduce and pass on their characteristics on to their offspring.
This is called **natural selection**.
Over time, these inherited characteristics become more dominant within the population.



Fossils

By studying fossils, scientists can put together how a plant or animal looked. They can identify what the animal ate, where it lived and how it died.

Key Vocabulary

Natural selection	The process whereby living things that are better adapted to their environment survive and produce offspring.
Inherited characteristic	A characteristic that is passed on to offspring from their parents.
Variations	The differences between individuals within a species
Environmental characteristic	An acquired characteristic that enables a living thing to adapt to its environment so that it can survive.
Evolution	The way in which animals and plants have slowly adapted over millions of years.
Species	A group of closely related organisms that are very similar to each other.
Fossil	The naturally preserved remains or imprint of a prehistoric plant or animal.
Microorganisms	A living organism that can only be seen with a microscope such as bacteria, and viruses.
Classification	Grouping things based on their characteristics so that they can be identified.
Genes	Sections of DNA that lead to a particular characteristic.
DNA	Living things are made of cells. Cells contain DNA which carries the characteristics we inherit.

Year 6 History
World War II 1939-1945

What led to the war in Europe?

The impact of the Treaty of Versailles on Germany
The Treaty signed at the end of WWI placed many restrictions on Germany and they did not like it.

- Unemployment (economic poverty) was high due to WW1 reparation payments.
- Land was taken away.
- Military restrictions were put in place.

Germans needed strong **leadership** because they believed politicians had failed them. Adolf Hitler was feeding their need for national pride and identity that they lost in WWII, as well as making promises about a better life.

Hitler's Manifesto:

- Make Germany great again.
- Unite all German speakers.
- More land for Germans.

The manifesto turned out to be racist and dangerous. Hitler needed stopping. The Allied Forces set out to stop him.

Neville Chamberlain until 1940, then **Winston Churchill** were Britain's wartime **Prime Ministers.**

Invasion of Britain
In 43AD, the Romans invaded.
In 449AD,The Anglo-Saxon tribes began to invade
In 793AD, the Vikings began to invade.
In 1066, the Normans invaded. That was the last invasion of Britain.
Almost 1000 years later, during WWII, Hitler and the Nazis failed to invade Britain.

Key dates to be aware of

Leading up to the War
1933 30th January - Adolf Hitler becomes Chancellor of Germany. His Nazi Party, or the Third Reich, takes power.
1937 7th July- Japan invades China.
1938 12th March - Hitler annexes Austria into Germany.

World War II
Sept 1st 1939 - Germany invades Poland. World War II begins.
Sept 3rd 1939 - France & Great Britain declare war on Germany.
June 9th 1940 - Germany takes control of Denmark & Norway.
May 30th 1940 - Winston Churchill becomes leader of GB.
June 10th 1940 - Italy enters the war as a member of the Axis powers.
July 10th 1940 - Germany launches an air attack on Great Britain. These attacks last until the end of October and are known as the **Battle of Britain.**

December 7th 1941 - The Japanese attack the US Navy in **Pearl Harbour.** The next day the US enters World War II on the side of the Allies.
September 3rd 1943 - **Italy surrenders** to the Allies.
June 6th 1944- D-day and the Normandy invasion in **Operation Overlord.** Allied forces invade France and push back the Germans.
August 25th 1944 - Paris is liberated from German control.
December 16th 1944 - The Germans launch a large attack in the **Battle of the Bulge.** They lose to the Allies.
March 22nd 1945 - The US Third Army crosses the Rhine River.
April 30th 1945 - **Adolf Hitler commits suicide** as he knows Germany has lost the war.

The end of the War
May 7th 1945 - **Germany surrenders** to the Allies.
August 6th 1945 - The United States drops the **Atomic Bomb on Hiroshima, Japan.** The city is devastated.
August 9th 1945 - Another atomic bomb is dropped on **Nagasaki, Japan**.
September 2nd 1945 - **Japan surrenders** to US and the Allies. The War is over.

How did the war impact on people?

Evacuation

Children were evacuated: from the city to the countryside to keep them safe, away from bombing.

The British government was worried that British cities and towns would be targets for bombing raids by aircraft.

Those evacuated…

- Schoolchildren (827,000) and their teachers
- Mothers with children under five (524,000)
- Pregnant women (12,000)
- Some disabled people

The government recommended that in addition to their gas mask and identity card the evacuees had the following items:

- Clothes
- Coat or raincoat
- Comb
- Wellington boots
- Towel and soap
- Facecloth
- Toothbrush
- Boots or shoes
- Plimsolls
- Sandwiches
- Nuts and raisins
- Dry biscuits
- Barley sugar
- Apple

At 11.07am on **Thursday 31st August 1939** the order was given to evacuate. It was called **Operation Pied Piper.**

The Holocaust

The **Holocaust** was one of the most terrible events in human history.

Six million Jewish people were murdered by the Nazis.

Millions of other people who Hitler didn't like were killed as well. This included **Polish people, Catholics, Serbs, and disabled people.**

It is thought that the Nazis murdered as many as 17 million innocent people.

Racism is when someone is treated differently because of their race, ethnicity, nationality or colour. **It is wrong. It is unacceptable. It must not be tolerated.**

Prejudice is a liking or disliking for one rather than another especially without good reason. **It is wrong. It is unacceptable.**

Ghettos The Nazis would take over a city in Europe they would force all of the Jewish people into one area of town. This area was called a ghetto and was **fenced in with barbed wire** and guarded. There was little food, water, or medicine available.

Concentration Camps were like prison camps. People were forced to do hard labour. The weak were quickly killed or died of starvation. Some camps had **gas chambers.** People would be led into the chambers in large groups only to be **killed with poison gas.**

Role of women

The role of women changed during the war. **Women were needed** to do what men would have typically done, as men had been drafted to the army e.g. farming, factory work

Land girls were farmworkers doing work to replace a man who had gone to fight.

Hiroshima and Nagasaki

6th August 1945 - USA drops the **Atomic Bomb on Hiroshima, Japan.** The city is devastated.
9th August 1945 - Another atomic bomb is dropped on **Nagasaki, Japan**.

We must pray that atomic bombs are never used again.

The Japanese say that 250.000 people died. Many more suffered horrific injuries. In the years that followed, many of the survivors, known as 'hibakusha', developed ill health.

Year 6 Geography
Changing Climate

What causes climate change?

There are lots of factors that contribute to Earth's climate. However, scientists agree that **Earth has been getting warmer** in the past 50 to 100 years due to human activities.

Certain gases in the Earth's atmosphere block heat from escaping. This is called the **greenhouse effect.** These gases keep the Earth warm like the glass in a greenhouse keeps plants warm.

Human activities — such as **burning fuel to power factories, cars and buses** — are changing the natural greenhouse.

These changes cause the atmosphere to trap more heat than it used to, leading to a warmer Earth.

'Climate is what you expect.

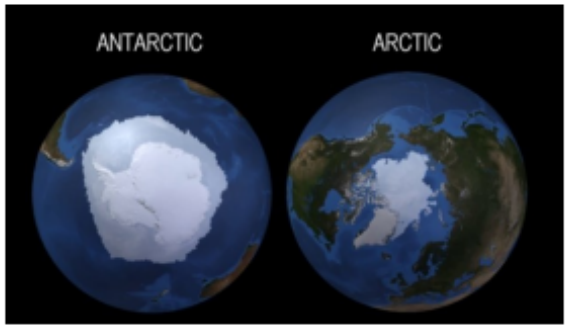
Weather is what you get'.

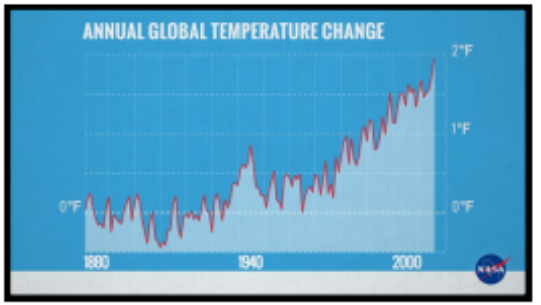
What causes global warming?

As the temperature of the Earth increases, the waters warm up.

1. Warmer water **expands** and so the oceans expand.
2. **Globally,** sea levels are rising due to the melting of ice **glaciers** on land masses such as Greenland and the Arctic (not melting sea ice).

The polar ice caps





How Much Is Earth's Climate Changing Right Now?

Some parts of Earth are warming faster than others.

On average, **global air temperatures** near the Earth's surface have gone up about **1 degree in the past 100 years**.

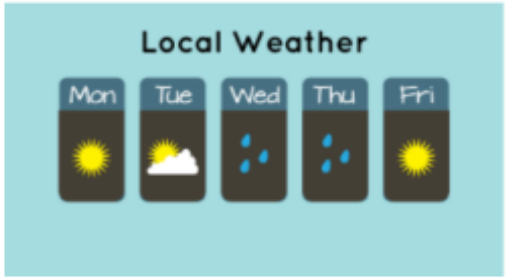
The past five years have been the warmest five years in centuries.

When the whole Earth's temperature changes by one or two degrees, that change can have big impacts on the health of the Earth's plants and animals, too.

Difference between weather and climate

Weather describes the conditions outside right now in a specific place. For example, if you see that it's raining outside right now, that's a way to describe today's weather. Rain, snow, wind, hurricanes, tornadoes — these are all weather events.

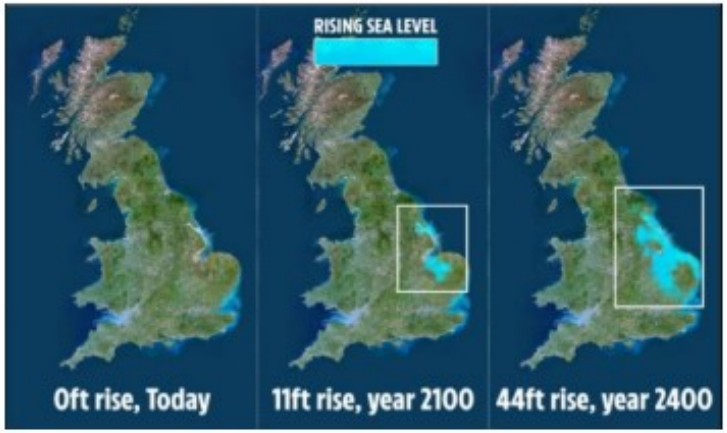
Climate, on the other hand, is more than just one or two rainy days. Climate describes the weather conditions that are expected in a region over a longer period of time.



How does global warning effect coastal areas?

1. **Global warming** is having an impact on the weather. Global means the whole world.
2. There is increased chance of **tidal surges** (large waves pushing into the land) due to more frequent and deep storms.
3. Storms cause damage to the **coastline**, with waves bombarding the cliffs.
4. This can result in properties along the coast falling into the sea.

Birling Gap—lighthouse keepers' cottages



A Case Study: Belle Tout Lighthouse at Birling Gap

Birling Gap, on the South Coast of England, is on a coastline which is **eroding.**

Belle Tout Lighthouse was moved further inland in 1999 because the cliff was falling away.

On 17th March 1999, in a remarkable feat of engineering work the 850-ton Belle Tout lighthouse was moved 17 metres away from the cliff face.

In 2019, there were further cliff falls at Birling Gap.

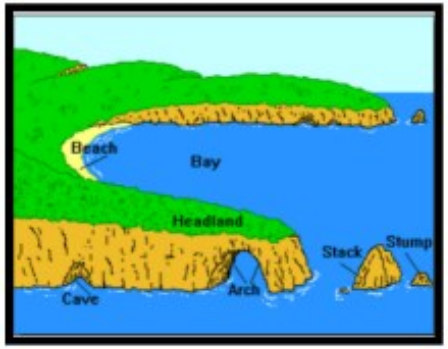
Our school trip to the area stopped that year because of the risk of cliff falls.

As coasts erode....

The coastline is where the coast meets the sea.

A headland is when the coast juts out into the sea.

As **waves** crash against the **rock-face** of the headland, **erosion** occurs.



In time, **caves** appear.

Sometimes the caves become **arches.**

Then after a long time, the **arch** breaks through and a **stack** is left.

As these **erode,** they become **stumps.**

Year 6 Spanish

Summer

Proyecto: Project

¿Qué país latinoamerica-no te gustaría visitar?

Me gustaria visitar Peru y ver el Machu Picchu.

Dónde quieres ir para vacaciones? Por qué?

¿Como vas a tu vacaciones ? En tren? Coche? Avión?

What is the capital of Cuba, Colombia, Venezuela?

¿Cuál es la capital de Cuba?

Where in the world do they speak Spanish?

¿En que parte del mundo se habla español?

¿Cómo llegó el idioma español a América Latina?

How did the Spanish language arrive in Latin America?

Vocabulario nuevo:

Nadar: to swim

Jugar : to play

Comprar: to buy

Disfrutar: to enjoy

Querer: to want

Ir: to go

Summer 1

Las Vacaciones

Francia está en Europa.

Madrid es el capital de España