



PUDSEY
GRAMMAR SCHOOL

EST.1905

KNOWLEDGE ORGANISER

YEAR 8

Student Name:

Year and Form:



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Portraits

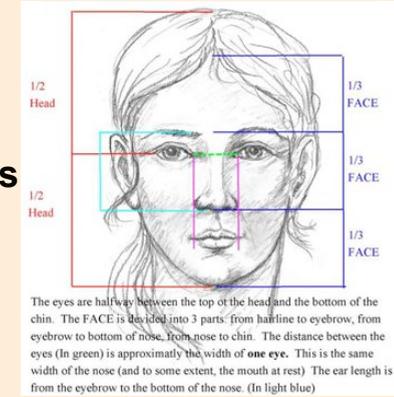
Francis Bacon



WK Interact



Facial Proportions



- Francis Bacon was Born on 28th October 1909
- He Died on 28th April 1992
- Francis Bacon was a Self portrait artist
- He created distorted portraits
- Painting in oil paint on canvas
- Paints with smudges and heavy mark making
- Often used curves shapes and layering
- Dark paintings with dark backgrounds and shadows
- Francis Bacon was alive during the war and volunteered as a bomb shelter marshal during WW1
- Bacon suffered from Mental health problems as well as alcoholism and depression
- Francis Bacon was confused about his identity
- Bacon's house in London was preserved exactly the way he left it when he died and is now open for the public to visit
- Bacon was a recluse and antisocial, he was also a hoarder and his house was very chaotic

- WK Interact was born in 1969 in Caen, France.
- He has lived and worked in New York since the early 1990's
- He was once homeless on the streets of New York
- WK is interested with the human body in motion, his paintings are of people frozen in movement
- The artist uses a technique of twisting an original drawing or photograph while it's being photocopied
- WK's graffiti sites are carefully chosen by finding an appropriate location first, then his image is chosen to encourage interactions with the public
- In the late 1990s his images began appearing on buildings in New York, complimenting the constant movement of people in the fast-paced city
- WK Interact now sells his Art work via his website and is a very successful graffiti artist

Drawing a Portrait using correct proportion

1. Draw a vertical line down the middle of the page
2. Draw an upside down egg shape for the face
3. Draw a horizontal line halfway across the face for the eyes
4. Draw in the 2 eyes (you should be able to fit 5 across the face)
5. Draw another horizontal line half way between the eyes and bottom of the face
6. Draw in the nose in the centre of the face
7. Draw another horizontal line between the nose and bottom of the face
8. Draw in the mouth directly underneath the nose. (this should be as wide as the measurement from the centre of each eye)
9. Draw in two eyebrows drawing individual hairs
10. Draw in the hair with long individual strokes.
11. Add shading and detail to the face using blending techniques



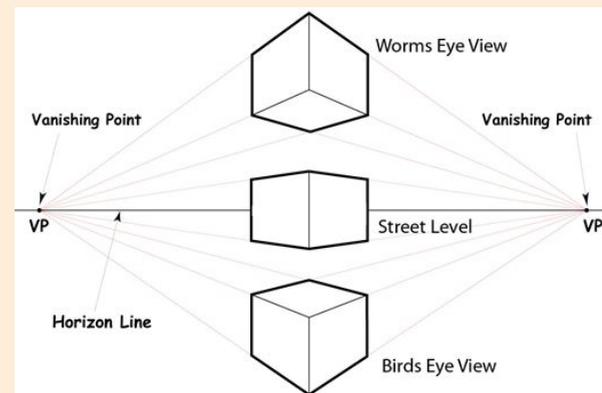
Key Art Terms

Formal Elements	The parts used to make a piece of artwork.
Line	Line is the path left by a moving point. For example, a pencil or a brush dipped in paint. A line can be horizontal, diagonal or curved and can also change length.
Shape	A shape is an area enclosed by a line. It could be just an outline or it could be shaded in. Shapes can be geometric or irregular .
Form	Form is a three dimensional shape , such as a cube, sphere or cone. Sculpture and 3D design are about creating forms.
Tone	This refers to the lightness or darkness of something. This could be a shade or how dark or light a colour appears. Tones are created by the way light falls on a 3D object. The parts of the object on which the light is strongest are called highlights and the darker areas are called shadows .
Texture	This is to do with the surface quality of something, the way something feels or looks like it feels. There are two types of texture: Actual texture really exists, so you can feel it or touch it; Visual texture is created using marks to represent actual texture.
Pattern	A design that is created by repeating lines, shapes, tones or colours. The design used to create a pattern is often referred to as a motif . Motifs can be simple shapes or complex arrangements.
Colour	Red, yellow and blue are primary colours , which means they can't be mixed using any other colours. In theory, all other colours can be mixed from these three colours.



Stretch & Challenge

Look at the work of Wes Namen, WK Interact, Carl Beazley, Pablo Picasso, Jeff Huntington and Francis Bacon. What formal elements can you see in their work?

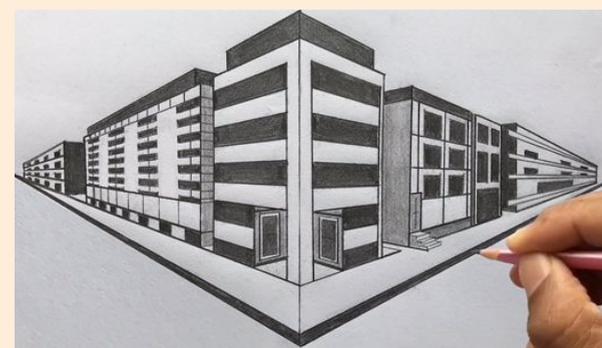


The ABCs of Art By M.C.Gillis

LINE (linea)

- LONG (largo)
- SHORT (corta)
- CURVED (curva)
- HORIZONTAL (horizontal)
- VERTICAL (vertical)
- PERPENDICULAR (perpendicular)
- PARALLEL (paralelas)
- DIAGONAL (diagonal)
- TAPERED (termina en punta conico)
- SPIRAL (espiral)
- BROKEN (quebrado)
- THICK (grueso)
- THIN (delgado)
- DOTTED (linea de puntos)
- WAVY/CURLY (ondulado)
- ZIG-ZAG JAGGED (zig-zag)
- VERTICAL (vertical)
- STRAIGHT (derecho)
- VARIED (variadas)

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Perspective Drawings of Buildings



Buildings and Cityscapes

Friedensreich Hundertwasser

- Born December 15, 1928 – Died February 19, 2000
- Hundertwasser did not like straight lines and any standardisation, expressing this concept in the field of building design
- His best known work is the Hundertwasser in Vienna, Austria which has become a notable place of interest in the Austrian capital, characterised by imaginative vitality and uniqueness
- Hundertwasser was a Visual Artist and Architect who also worked in the field of Environmental Protection
- He was an Ecological activist
- Hundertwasser is more widely known for his individual architectural designs. These designs use irregular forms, and incorporate natural features of the landscape

Hundertwasser's paintings mainly comprised of buildings and landscapes but these features were sometimes unrecognisable. Faces sometimes also featured in some of his work. He used the same shapes, colours and patterns seen in his buildings.



The patterns in Hundertwasser's work are irregular which means that the shapes are not all the same size or in line. The shapes in his work are organic and have no corners or straight lines.

Other artists:
Chetan Kumar
David Crunelle



ANNOTATIONS

As a general rule, always try to say:

- **WHAT** you have looked at
- **WHO** made it
- **WHEN** it was made
- **WHY** it is inspiring to you
- **HOW** it will effect your own work

When talking about your own work, try to say:

- **WHAT** you have done
- **HOW** have you done it
- **WHAT** inspired you
- **WHAT** else did you try
- **WHY** is it successful
- **IS** there anything you would change

ALWAYS TRY TO BE POSITIVE!



HTML & Web

Basic Structure of a Webpage

```
<!DOCTYPE html>
<html>
<head>
<title>Page Title</title>
</head>
<body>

<h1>This is a Heading</h1>
<p>This is a paragraph.</p>

</body>
</html>
```

- HTML stands for Hyper Text Markup Language
- HTML is the standard markup language for creating Web pages
- HTML describes the structure of a Web page

Headings

Heading 1

Heading 2

Heading 3 `<h1>Heading 1</h1>`

`<h2>Heading 2</h2>`

Heading 4 `<h3>Heading 3</h3>`

`<h4>Heading 4</h4>`

Heading 5 `<h5>Heading 5</h5>`

`<h6>Heading 6</h6>`

Heading 6

An unordered HTML list:

- Item
- Item
- Item
- Item

```
<ul>
  <li>Coffee</li>
  <li>Tea</li>
  <li>Milk</li>
</ul>
```

Hyperlinks and Images

```
<a href="https://www.google.com/">Google</a>

```

```
<p>This is a paragraph.</p>
```

```
<p>This is another paragraph.</p>
```

```
<h1 style="background-color: DodgerBlue;"> Hello
World</h1>
```

This text is bold `<p>This text is bold</p>`

This text is italic `<p><i>This text is italic</i></p>`

This text is italic `<p>This is_{subscript} and ^{superscript}</p>`

This is subscript and superscript

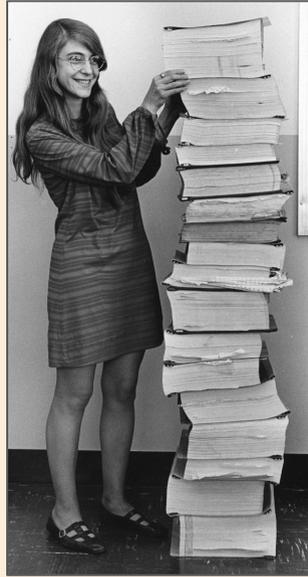
```
<h1 style="color: Tomato;">Hello World</h1>
```



Woman in Computer Science

Margaret Hamilton

Margaret Hamilton led the team in designing the flight navigation software for the Apollo Moon missions in the 1960's.



At the age of 32, Margaret Hamilton oversaw the development of the flight control software, including developing a unique way to handle errors occurring during flight.

Hamilton in 1969, standing next to listings of the software she and her MIT team produced for the Apollo project

On July 20, 1969, as the lunar module, Eagle, was approaching the moon's surface, its computers began flashing warning messages. Mission Control faced a "go / no-go" decision, but with high confidence in the software developed by Margaret Hamilton and her team, they told the astronauts to proceed. The software, which allowed the computer to recognize error messages and ignore low-priority tasks, continued to guide astronauts Neil Armstrong and Buzz Aldrin to the surface of the moon.

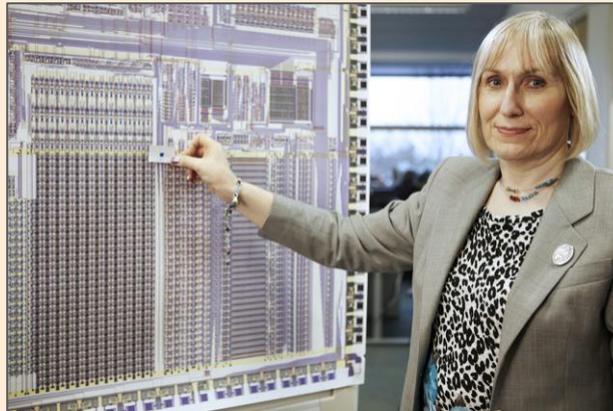
Sophie Wilson

Sophie Wilson co-created the world's first RISC microprocessor in 1985. This processor design has led to over 55 billion devices using its architecture including, all Smartphones and Tablets.

Sophie Wilson was born Roger Wilson, and grew-up in Leeds.

She studied Computer Science at the University of Cambridge and worked for Acorn Computers during the computer boom of the 1980's.

There she developed the design for the ARM Processor (Acorn RISC Machine), wrote the instruction set for the processor and developed the programming language for BBC Micro computer which, every school in England used to teach students how to code during the 1980's.



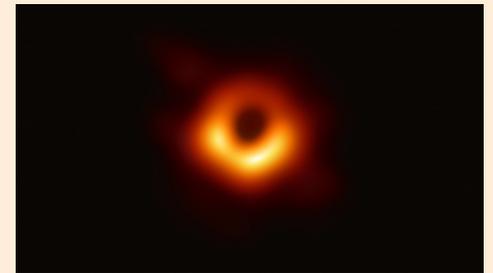
Katie Bouman

Katie Bouman is an American engineer and computer scientist working in the field of computer imagery. She led the development of an algorithm for imaging black holes.



Bouman studied electrical engineering at the University of Michigan and graduated with top honours in 2011. She earned her master's degree (2013) and doctoral degree (2017) in electrical engineering and computer science from the Massachusetts Institute of Technology (MIT).

Bouman joined Event Horizon Telescope project in 2013. She led the development of an algorithm for imaging black holes, known as CHIRP. CHIRP inspired image validation procedures used in acquiring the first image of a black hole in April 2019, and Bouman played a significant role in the project.



Spreadsheet Key Terms



Key Vocab	
Absolute Cell Reference	An absolute cell reference is one that does not change when it is copied. To make a cell reference absolute, you must include a \$ before the reference (ex: \$C\$4). The other type of reference is a Relative Reference..
Active Cell:	The active cell is the cell in the spreadsheet that is currently selected for data entry. The current active cell can be identified as being the one that has a darker black border around it.
Bar / Column Chart:	A bar or column chart is a style of chart that is used to summarize and compare categorical data.. Bars run horizontally and columns run vertically.
Cell:	A cell is a rectangular area formed by the intersection of a column and a row. Cells are identified by the Cell Name (or Reference, For example the cell in Column "C" in Row "3" would be cell C3
Columns and Rows	Columns and Rows refer to how your cells are aligned. Columns are aligned vertically while rows are aligned horizontally.
Merged Cell	When two or more cells are combined, it's become what is known as a merged cell.
Workbook	The workbook refers to an Excel spreadsheet file. The workbook houses all of the data that you have entered and allows you to sort or calculate the results
Worksheet	Within the workbook is where you'll find documents called worksheets. Also known as spreadsheets, you can have multiple worksheets nestled in a workbook.
Labels	Labels refer to text that is typed into the cells of a spreadsheet. Labels have no numeric value and cannot be used in a formula or function.
Pie Chart	A pie chart is a circular chart that is divided up into sections, each of which represents the numerical proportion of the whole.
Gridlines	Gridlines are the horizontal and vertical lines on the screen that separate cells in a spreadsheet.
Fill handle	The fill handle is the small bold square in the bottom right corner of a cell that can be used to copy (fill) data to adjacent cells in the same row or column.

Key Vocab	
Formula	A sequence inside a cell that is used to produce a value. It must begin with an equal (=) sign. This could be a mathematical equation, cell references, functions or operator. A formula is also known as an expression.
Function	Functions are formulas that are pre-built into Excel. They are designed to help simplify potentially complex formulas in a worksheet. Eg, SUM, MAX, MIN, AVERAGE
Conditional Formatting	Formatting is applied only when the cell meets determined criteria such as duplicate values or values above or below a threshold.
Data Validation	This feature helps to prevent incorrect data from being entered into your worksheet. This most commonly used to create drop-down lists for common terms. Data validation promotes consistency and accuracy in the data to be entered.
Auto SUM	This feature will add up the numbers you have entered in your sheet and displays the total in a cell of your choosing.
Filter	filters are rules that you can employ to decide which rows in a worksheet to display. These filters can use data such as conditions or values.
SUM	Sum function adds a range of cells: eg =sum(A1:A10)
MAX	Max functions identifies the highest number from a range of cells, eg =max(D1:D10)
MIN	Min function identifies the lowest number from a range of cells, eg =min(D1:D10)
COUNTIF	Countif functions counts text in a range of cells and gives the total, eg =countif(D1:D10,"pay") - Counts the word pay in the range and gives a total.
COUNT	COUNT(A:A) – Counts all values that are numerical in A column. However, you must adjust the range inside the formula to count rows.
If Statement	Statement checks condition of values, if its true or false and returns the value set. For example, IF(C2>B2,"Over Budget","Within Budget")

Design and Technology



Junior Hack Saw – Used for cutting metal



Blow Torch – Used to melt metal



A machine Vice – To clamp and hold metal work securely when operating a machine tool such as a drill.

Sustainability	We must act responsibly about the products we consume in order to be able to support the billions of people on this planet forever.
Climate Change	The long-term alteration of temperature and normal weather patterns in a part of the world.
Renewable	Any natural resource (as wood or solar energy) that can be replenished naturally with the passage of time.
Durability	Something continuing to be used without getting damaged.

CAD/CAM
Computer aided design, computer aided manufacture
2D Design – Is a computer package that allows you to produce designs that can then be sent to the laser cutter.
Laser Cutting is a non-contact process which utilizes a **laser** to **cut** materials, resulting in high quality, dimensionally accurate cuts. The process works by directing the **laser** beam through a nozzle to the work piece. A combination of heat and pressure creates the **cutting** action.

Some alloys..

Alloy	Composition	Properties	Uses
Brass	Copper, zinc	Does not corrode easily; looks like gold	Coins, musical instruments
Stainless Steel	Iron, chromium, nickel, carbon	Resistant to corrosion, strong	Cutlery, utensils
Solder	Tin, lead	Low melting point	For joining metals
Pewter	Tin, antimony, copper	Bright, shiny, looks like silver	Decorative ornaments

Health and Safety

Safety Goggles – worn when using machinery to protect your eyes.

Apron – Worn to protect clothing

Yellow Line – Always stand behind the yellow line when somebody is else is using the equipment

Always **tie long hair** back to prevent it becoming tangled in pieces of equipment

Never use tools or equipment without **permission**

Bags in pigeon holes, stools stacked neatly when doing practical work so they are not a tripping hazard

Properties of Pewter – A shiny soft metal that has a very low melting point and can be easily worked

Properties of Acrylic - Excellent optical clarity, excellent weatherability and resistance to sunlight. Rigid, with good impact strength. Higher melting point than Pewter meaning the mould will not melt when casting the pewter.

Properties of Plywood - Plywood is wood veneers bonded together to produce a flat sheet. Plywood has increased **Stability**: Plywood offers all the advantages of the parent wood plus has additional strength and stability because of its laminated structure.

THERMOPLASTICS	THERMOSETS
	
(Can be melted repeatedly)	(Once shaped, cannot be melted)

Annotating Design Work

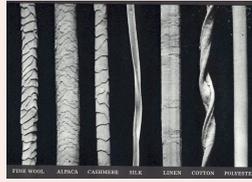
All design work should be fully annotated. Annotations should include:

- Measurements
- Target audience
- Cost
- Materials
- Equipment and tools
- Manufacturing techniques

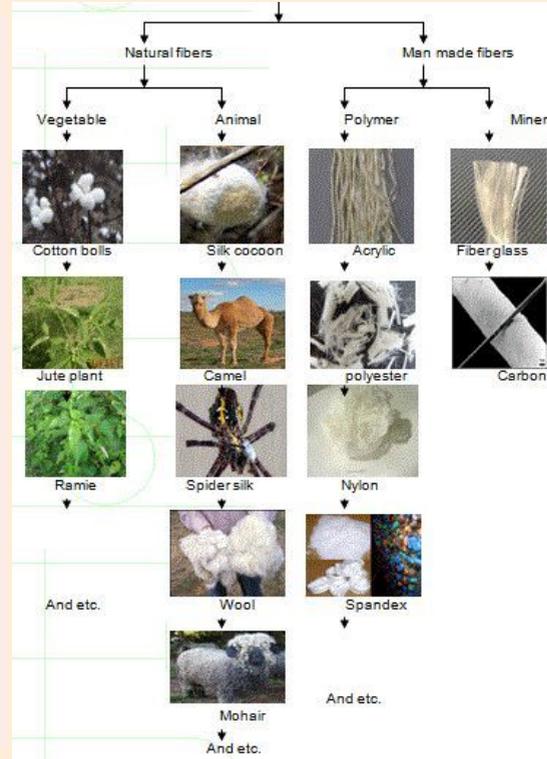


Textiles

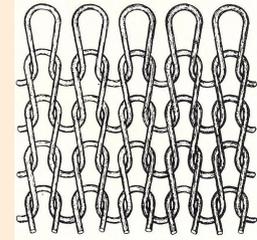
Textiles fibres & fabrics



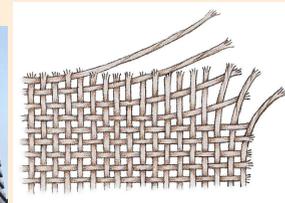
- Fibres: fine hair like structure
- Fabrics: Knitted, Woven, Felted
- Knitted stretches all directions,
- Woven stretched Diagonally,
- Felted pulls to pieces
- Equipment: Needle, pin, un picker, scissors, sewing machine, heat press, iron and ironing board, pompom maker, zipper foot
- Technical terms: Pin, pinning, tack, tacking, machine, machining, resist method, tie dyeing, printing, Seam, Hem, Zip, construction, 3 dimensional,
- Decorative techniques: Tie dye, Transfer paint, CAD printing



Knitted Fabric – Stretches in all directions – used to make underwear, sports wear, anything that needs to stretch and then go back into shape



Woven Fabric – stretches diagonally only – used for smart jackets, shirts, skirts, bed sheets, anything that needs to keep its shape.



Environmental We must act responsibly about the products we consume in order to be able to support the billions of people on this planet forever

Recycling The process of taking materials ready to be thrown away and converting (changing) them into reusable materials

Biodegradable Breaks down or decays naturally without any special treatment

Health, Safety and Hygiene, individually, group, safe use of equipment, safe manipulation of materials, product is safe for the user.

Properties of fabric – Stretch, strength, recovery, waterproof, absorbent, insulating, breathable.



Non-woven – Fibres are bonded together by mechanical (rubbing, pressure) Chemical, glue (stick together) to create fabrics that are light weight, hold their structure for a limited amount of time. Used in baby wipes, j-cloths, disposable clothing. Will tear if pulled.

Felted fabrics – are usually made using animal hair and are bonded by using heat, soap and rubbing



Food Preparation and Nutrition



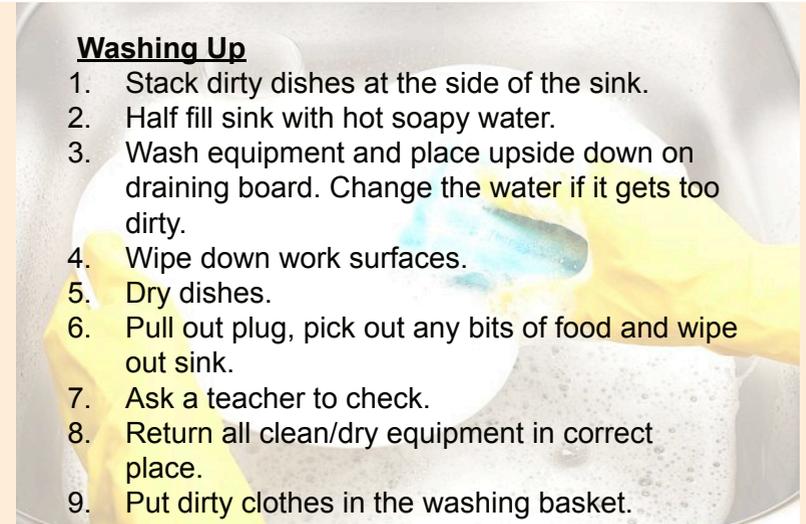
- Eat at least 5 portions of a variety of fruits and vegetables every day.
- Base meals on potatoes, bread, rice, pasta or other starchy carbohydrates; choosing wholegrain versions where possible.
- Have some dairy or dairy alternatives (such as soya drinks); choosing lower fat and lower sugar options.
- Eat some beans, pulses, fish, eggs, meat and other proteins (including 2 portions of fish each week, one of which should be oily).
- Choose unsaturated oils and spreads and eat in small amounts.
- Drink 6-8 cups/glasses of fluid a day.
- If consuming foods and drinks high in fat, salt or sugar have these less often and in small amounts.

Fair Trade	Producers receive a fair price for the goods that they produce.
Food Miles	The distance between the place where food is grown or made and the place where it is eaten.
Carbon Footprint	The amount of carbon dioxide released into the air because of your own energy needs.
Seasonality	The times of year when a given type food/fibre is at its peak, either in terms of harvest or its flavour.

Nutrient	Why we need it	Where it is found (sources)
Protein	For growth and repair of muscles	Meat, fish, pulses, eggs, Quorn, lentils, tofu, nuts
Fats	Warmth, protection and to help absorb vitamins A and D	Butter, margarine, meat, fish, oils, nuts, cream, seeds
Carbohydrates	To give us energy, to help keep us going. Aids digestion. 2 types, sugars and starches.	Pasta, Rice, Potatoes, Cous cous, flour, bread, sugar, fruit, vegetables.
Vitamins	A = Healthy Eyes and Bones B = Releases energy from food C = Helps us absorb iron, supports immune system D= Strong teeth and bones	Liver, egg yolk, carrots Wholegrain, yeast, meat Citrus fruits, green vegetables Cereal, sunlight, margarine
Minerals	Calcium – strong bones / teeth & blood Iron – transports oxygen round body	Dairy, bones in fish, green vegetables Meat, cocoa, green vegetables

Washing Up

1. Stack dirty dishes at the side of the sink.
2. Half fill sink with hot soapy water.
3. Wash equipment and place upside down on draining board. Change the water if it gets too dirty.
4. Wipe down work surfaces.
5. Dry dishes.
6. Pull out plug, pick out any bits of food and wipe out sink.
7. Ask a teacher to check.
8. Return all clean/dry equipment in correct place.
9. Put dirty clothes in the washing basket.





Key knowledge

Key Word	Definition
Breaking the 4th Wall	When an actor shows an awareness of the audience by talking or interacting with them
Comedy	Is a type of performance genre that is amusing and satirical in its tone, mostly having a cheerful ending. The audience normally finds it funny and laughs at the character or situations.
Context	The situation or circumstances in which a piece of drama is set or devised, including historical, cultural or social influences. In simple terms: Who? What? Why? Where? & When?
Devise	To create performance from a stimulus
Dramatic Irony	When the audience knows something that the characters do not. E.g. The wolf is wearing Grandma's clothes.
Ensemble	When actors perform together as a group

Key knowledge

Key Word	Definition
Entrances and Exits	The way an actor enters the stage and leaves the stage during a performance.
Evaluation	To reflect on the performance, commenting on the strengths and areas for improvement
Improvisation	Making up the drama as you go along
Line learning	The process of memorising and remembering what your character says in a scene or play
Melodrama	When the acting and performance is performed in an exaggerated and over the top way

Key knowledge

Key Word	Definition
Physical theatre	Is using your body to create props or set
Rehearse	To practice your performance till it is a 'polished' piece of drama
Status	The assumed importance of a character based on their wealth, power and importance
Stage directions	An instruction in the text of a play indicating the movement, position, or tone of an actor, or the sound effects and lighting.
Stage combat	A specialised technique in theatre designed to create the illusion of physical combat without causing harm to the performers
Stereotype	A generalised belief about a particular category of people
Stimulus	A starting point for devising Drama
Tragedy	Sad events take place during the performance that the character must get over. The story can end in a sad way



Drama conventions

Key Word	Definition
Still Image	Is a frozen image where the actors must use their facial expression, body language, levels and proxemics to communicate the moment. Actors can not move or talk
Narrator	Role designed to tell the story or provide accompanying information. <ol style="list-style-type: none"> Narrator stands at the side Actor comes out of character and narrates Character narrates
Monologue	A speech performed by an actor on their own, expressing the characters thoughts, emotions and the situation they are in
Marking the Moment	A dramatic technique used to highlight a key moment in a scene or improvisation. Slow-motion, a freeze-frame, narration, thought-tracking, music or lights

Intentions

Key Word	Definition
Performance intention	What you want the audience to think or feel about your performance. The overall meaning or message
Scene intention	What information you want the audience to know
Character intention	What you want the audience to think or feel about your character

Theatre makers

Key Word	Definition
Actor	The person that takes on a character in a performance
Director	The person that is steering and leading the performance, they contribute to each element and work with both the creative and performance elements of the play

Character Skills

Key Word	Definition
Body Language	How you communicate your character's emotions through the use of your body
Facial Expressions	How you communicate your character's emotion using your face
Levels	To show the status of the character through actors being at different heights
Physicality	How actors use their facial expressions and body language to show emotion, characteristics and age
Proxemics	The distance between the actor & actor, actor & audience or actor and object and what that communicates
Red Cross	An actor facing forward so the audience can see their facial expression and body language
Staying in Role	Being fully committed to your character throughout the whole performance
Vocal Skills	The way you use your voice to communicate your character's emotions



RHETORIC

Rhetorical language is how we **form our arguments, shape our views and put across our ideas in a convincing way.**

The Aristotelian Triad

Aristotle outlined that an effective **persuasive argument** must contain these **three elements to be successful:**



Key rhetorical devices

Alliteration	Repeating the same sound at the start of consecutive words
Anecdote	A short amusing or interesting story about a real incident or person.
Anaphora	Starting each sentence with the same words
Direct Address	Use of a proper noun (you) to address the audience.
Dialysis	Presenting an alternative argument

Form

- Speech** Speaking formally to an audience. A speech will open using a powerful image, anecdote or pose a question to the audience.
- Poem** Poems are a form of literature that can be used to share ideas or opinions about society. Polemic poetry is used to create a debate or highlight a problem.

Purpose

- Action** The purpose of a piece of writing could be to demand that action be taken to change or stop something happening.
- Motivation** Motivating people is to make them feel enthusiastic or driven to believe an idea, or to take action. It may be that the speaker or writer is trying to give people hope or an optimistic outlook.

Key Vocabulary

Ethos	Convincing an audience of the reliable character or credibility of the speaker/writer, or the credibility of the argument.(e.g. Buy my old car because I am Jeremy Clarkson')
Pathos	A way of convincing an audience of an argument by creating an emotional response (e.g. Buy my old car as I'm selling it to pay for vets' bills of this cute little kitten')
Logos	An appeal to logic, and is a way of persuading an audience by reason.(e.g. Buy my old car because yours is broken)
Invention	The content of your speech and drawing together of evidence
Arrangement	The order of your speech



The Romantics and the Natural World

Romantic era:

Romanticism was an artistic and literary movement that originated in Europe towards the end of the 18th century, Romantic writers focussed on celebrations of nature, the power of imagination, childhood, and giving a voice to the marginalised and oppressed. Key writers include William Wordsworth and William Blake.

Poetry by William Wordsworth

William Wordsworth was an English Romantic poet born in 1770. He wrote many poems about the power of the natural world. Wordsworth wrote a poem about seeing daffodils in the Lake District, and about the beauty of Westminster Bridge in London.

Poetry by Grace Nichols

Grace Nichols is a Guyanese poet who moved to Britain in 1977. Her poetry explores ideas around place and identity and the power of the natural world. She wrote a poem called 'Storm on the Island' about the great storm of 1987 in England, and how that offered connection to Guyana.

Poetry by Imtiaz Dharker

Imtiaz Dharker is a British poet, artist and video film maker. Her poetry explores ideas about place and the natural world. She wrote a poem called 'Blessing' set in Mumbai about the importance of water.

	Skill	Definition	Example
Word Level	Personified Verbs	Verbs (words that show action) used to give an object human characteristics.	'The daffodils danced in the breeze.'
Sentence Level	Simple Sentence	A sentence made up of one main clause.	'The daffodils were beautiful.'
Sentence Level	Compound Sentence	A sentence made up of two main clauses	'The daffodils were beautiful and the lake sparkled.'
Sentence Level	Complex Sentence	A sentence made up of at least one main clause and one subordinate clause.	'Despite the drizzle and rain, the daffodils were beautiful.'
Sentence Level	Positioning of subordinate clause	Position a subordinate clause at the beginning or end of a sentence for effect.	' Sparkling in the sunlight , the river carved its way through the valley.' or 'The river carved its way through the valley, sparkling in the sunlight. '
Sentence Level	Sentence fragments	An incomplete sentence that does not contain a subject and a verb.	'Fog everywhere.'
Whole Text Level	Temporal connectives	Words or phrases used to tell a reader when something is happening.	'Earlier', 'Later', 'Afterwards', 'Meanwhile'
Whole Text Level	Prepositional phrases of time	A prepositional phrase that allows you to discuss a particular time e.g. date, season, time period.	'In May', 'At 3 o'clock', 'In 1990', 'At dinnertime'



The Romantics and the Natural World

Vocabulary	Definition
Industrialisation	The development of industries in a country or region on a wide scale
Anthropomorphism	The attribution of human characteristics or behaviour to a god, animal, or object

Stanza	A group of lines forming the basic recurring metrical unit in a poem
Enjambment	The continuation of a sentence without a pause beyond the end of a line, couplet, or stanza

	Skill	Definition	Example
Punctuation	Bracket	Used to add extra information to a sentence	'The daffodils (bright yellow goddesses) danced in the breeze.'
Punctuation	Dash	Used to add extra information and as a way of showing parentheses	'The daffodils - almost trampled by the herd of cows - stood tall and proud in the field.'
Punctuation	Semicolon	Used to link two main clauses in place of a coordinating conjunction or a full stop	'The daffodils were yellow; they swayed gently in the breeze.'
Punctuation	Colon	A sentence followed by extra information.	'I love daffodils: the yellow flowers bring me joy.'
Literary Device	Personification	Giving human characteristics something non human	'The sea boiled with rage.'
Literary Device	Assonance	The repetition of vowel sounds	'How now brown cow.'
Literary Device	Sibilance	The repetition of the 's' sound	'The snake hissed sneakily.'
Literary Device	Onomatopoeia	A word that sounds like the thing it is describing	'Buzz', 'Hiss', 'Pop'
Literary Device	Symbolism	Something representing something else	A dove represents peace.
Literary Device	Alliteration	The repetition of a consonant sound	'big bang'



Blood Brothers

Context:

Marilyn Monroe - Famous and glamorous Hollywood movie star who Mrs Johnstone is compared to. Mickey is also compared to the actress as Mickey becomes addicted to antidepressants, mirroring Monroe's own addiction struggles.

Context:

Margaret Thatcher - First female Prime Minister. During her time in power, unemployment rates were higher than ever before.

Context:

Liverpool - Liverpool depended heavily on traditional industries, so it was badly hit by the industrial decline in the late twentieth century. The city's working-class areas were very poor and many people suffered during this period.

Context:

Social class:

Working class - refers to people in society who generally have low skilled jobs.
Middle class - refers to people in society who generally have professional jobs.
Upper class - refers to people in society who generally are very wealthy or who have inherited wealth

Willy Russell:

Willy Russell is a writer from Liverpool. He wrote the play 'Blood Brothers' which explores themes such as social class, poverty, 'nature vs. nurture', superstition and mental health.

	Skill	Definition	Example
Word Level	Adverb	Gives additional information about a verb	'He ran slowly .' 'She jumped enthusiastically .'
Word Level	Comparative connective	Used to compare, discuss and argue, to show similarity or add a point	'but', 'moreover', 'alternatively'
Sentence Level	Adverbial phrase	Gives information about time, manner or place linked to a verb	'Rain dripped gently down the window pane .'
Sentence Level	Prepositional phrase	A phrase that tells you where or when something is in relation to something else	'The tree behind the house'
Sentence Level	Noun phrase	A phrase that has a noun as its head word	'The red car' 'The big house'
Sentence Level	Fronted adverbial	An adverbial word/phrase positioned at the front of a sentence.	'Without warning, the hail fell.'
Sentence Level	Syntax	Word order within a sentence.	'He walked slowly' - a subject, verb, adverbial



Blood Brothers

Vocabulary	Definition
Tragedy	A play dealing with tragic events and having an unhappy ending, especially one concerning the downfall of the main character.
Prologue	Introductory section of a literary, dramatic, or musical work.

Comedy	A genre that is humorous and designed to make the audience laugh.
Narrator	A character who narrates (tells the story) of something.

	Skill	Definition	Example
Punctuation	Brackets	Used to add extra information to a sentence	'Equality (something that we should all expect) still hasn't been achieved in this country.'
Punctuation	Dash	Used to add extra linked information and as a way of showing parentheses (a word or phrase used to show explanation or an afterthought).'	'Education - so important to so many - can take several different forms.'
Punctuation	Semicolon	Used to link two main clauses in place of a coordinating conjunction or a full stop	'Mrs Lyons wanted a baby; Mrs Johnston was having twins.'
Punctuation	Exclamation mark	Used to show excitement, shock or strong feelings	'We must fight for a fairer future!'
Literary Device	Connotation	An idea or feeling evoked by a word	The verb 'sliced' could have connotations of violence.
Literary Device	Monologue	A speech or entire performance by one actor	In 'Blood Brothers' Mickey delivers a monologue in the form of a song.
Literary Device	Salutation	A greeting used to open a letter	'Dear sir/madam', 'Hi Fred.'
Literary Device	Valediction	The action of saying farewell	'Yours faithfully', 'Hope to see you soon!'
Literary Device	Genre	A style or category of music, art or literature	Tragedy, comedy, melodrama, musical theatre



Detective Fiction

Arthur Conan Doyle and Sherlock Holmes:

Sir Arthur Conan Doyle was a British writer and physician. He created the character Sherlock Holmes in 1887 for 'A Study in Scarlet', the first of four novels and fifty-six short stories about Holmes and Dr. Watson.

Context:

The Police Force:

On 29 September 1829 the first 'new police' were introduced in London with the role of preventing crimes. In 1842 the 'Detective Department' was established with the role of solving crimes.

Vocabulary	Definition
Melodrama	A sensational dramatic piece with exaggerated characters and exciting events intended to appeal to the emotions
Monologue	A long speech by one actor in a play or film
Fragment	A small part broken off or separated from something
Protagonist	The leading character or one of the major characters in a play, film, novel

	Skill	Definition	Example
Word Level	Adverb	Gives additional information about a verb	'Slowly', 'cautiously'
Sentence Level	Noun phrase	A phrase that has a noun as its head word	'The tired old detective'
Sentence Level	Pre-modification of a noun phrase	The noun is modified by words that come before it in a phrase	'The crumbling old house'
Sentence Level	Post-modification of a noun phrase	The noun is modified by words that come after it in a phrase	'The house by the sea'
Sentence Level	Relative clause	A clause in a sentence that adds information about the noun and uses a relative pronoun e.g. 'that', 'which', 'who', 'whose'	'The detective, who was usually rather cheerful, wore a forlorn expression on his face.'
Sentence Level	Sentence fragment	An incomplete sentence that does not contain both a subject and a verb	'Water everywhere.'
Literary Device	Red Herring	A clue or a piece of information that is intended to be misleading or distracting	Hinting that poison was a cause of death in a detective story when it had nothing to do with the death
Literary Device	Juxtaposition	Two things placed close together with contrasting effect	'The ice burned his hands.'

The Iliad:

Homer was the presumed author of 'The Iliad' and 'The Odyssey', two epic poems that form an important part of ancient Greek literature. 'The Iliad' is set during the Trojan War, the ten-year siege of the city of Troy.

Beowulf:

'Beowulf' is an Old English epic poem. It follows the hero Beowulf as he battles various monsters and mythical creatures.

Epic Poetry:

A lengthy narrative poem typically about the extraordinary deeds of extraordinary characters who, in dealings with gods or other superhuman forces, shape the world for those after them.

Vocabulary	Definition
Mythology	A collection of myths, especially one belonging to a particular religious or cultural tradition
Hero	A person who is admired for their courage, outstanding achievements, or noble qualities
Antagonist	A person who actively opposes someone or something; an adversary
Chivalrous	Courteous and gallant, especially towards women

	Skill	Definition	Example
Word Level	Adverb	Gives additional information about a verb	'slowly', 'rapidly'
Word Level	Verb	A word describing an action or a state	'rush', 'think'
Word Level	Adjective	A descriptive word used to modify a noun	'red,' 'big', 'beautiful'
Sentence Level	Fronted adverbials	An adverbial word/phrase positioned at the front of a sentence	' Before sunrise , the army had gathered.'
Literary Device	Dual narrative	A form of narrative that tells a story in two different perspectives, usually two different people	Part of the story is told by Achilles and part of the story is told by Patroclus.
Literary Device	First or third person narrator	A narrative written from the perspective of a character or written from the perspective of one or more characters using third person pronouns	'I grabbed my sword and ran.' 'He grabbed his sword and ran.'
Literary Device	Omniscient narrator	A narrator who knows what is happening at all points of the story at all times	'The young woman was confident; it would have been impossible for her to know what was coming.'
Literary Device	Unreliable narrator	A narrator who we don't entirely believe	'Achilles was unbeatable and he knew it.'



Development & Asia

What is development?

Development is a process that creates growth, progress, positive change or the addition of physical, economic, environmental, social and demographic components.

GNP -Gross National Product

How much money a country earns as a population excluding business taxes. This is a total sum, and shows the overall size of the economy.

GNI per head

Gross national income is a measure of the country's wealth. GDP is part of GNI. It includes the total value of goods and services produced within a country

Human Development Index (HDI)

This is a composite (combined) measure that considers life expectancy, GNI and an education index to give a value between 0 and 1, 1 being the most developed.

Birth Rates

How many babies are born per 1000 people in a population per year. Poorest countries have high birth rates, and wealthier countries have lower births rates.

Life expectancy

The average age a person can expect to live to at birth. This is a very useful indicator as it reveals how good food security, water quality, shelter and medical care are in a country.

Infant mortality

How many babies die per 1,000 live births per year.

Literacy rate

What percentage of the country is able to read and write as adults. This is another social measure, and helps to indicate the standard of education within a country or place.

Asia's physical and human geography

Asia is joined to Europe but has been separate continent for 2,500 years. It is the world's largest continent by both area and population. Its population stands at 4.3 billion which half of the world's population.

Monsoon Climate

Life across Asia is heavily influenced by the climate. It is vital to to country's economies but can also endanger lives and livelihoods. In South East Asia many countries like India rely on the monsoon climate. The monsoon falls between June-September and brings $\frac{3}{4}$ of India's rainfall which is vital for food production.

Floods

Millions of people rely on the monsoons and flooding for agriculture. However when flooding is greater than expected millions of people are put at risk. The countries of India and even more so low lying Bangladesh are heavily impacted by the seasonal floods.

The Mountain biome

There are a wide variety of biomes across the continent. This is because the continent stretches from Northern latitudes near the arctic circle to just below the equator. Asia includes the most significant mountain biome: the Himalayas. The mountain biome lies between 3,000 metres and the snowline.

The population of Asia is diverse and dynamic

60% of the world population lives in Asia, over half is in two countries: India and China. Asia has seen the largest increase in population of all seven continents. However this population is unevenly spread and some countries populations are booming (Afghanistan), whilst others are shrinking (Japan).

Urbanisation in India

Urbanisation is the increase in the number of people living in towns and cities. It often gives rise to megacities in developing countries (cities with over 10 million). There are many push factors which make people leave their rural lives such as low paid jobs and many pull factors which attract people to the cities such as well paid jobs.



Hazards & Russia

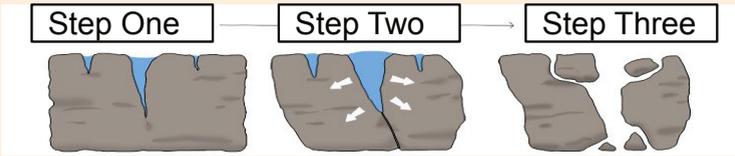
Hazards	
Structure of the Earth	The four layers of the earth are the inner core, outer core and crust. There are 4 types of plate boundary: constructive, destructive, collisional and conservative.
Location	Earthquakes and volcanoes are found along plate boundaries. A sudden slip on a fault causes a quake, seismic waves are released from the focus and the epicentre is the location of the quake on the surface. The Richter scale measures the strength of the quake.
What happens at plate boundaries?	Plates move due to convection currents in the mantle. At destructive plate boundaries the oceanic plate subducts beneath the lighter continental. At a constructive boundary plates move apart 'constructing new land'. At conservative boundaries the plates slip past.
How can risks be managed?	Prediction involves using seismometers to monitor earth tremors. It is very difficult to predict when they will happen. Even looking at the timescale between earthquakes doesn't seem to work. Protection involves constructing buildings so that they are safe to live in and will not collapse. In earthquake-prone countries, hospitals, emergency services and residents practise for an earthquake. They have drills in all public buildings so that people know what to do in the event of an earthquake.
What do we know about volcanoes?	Millions of years ago, magma forced its way through a weak spot in the Earth's surface. The lava cooled and turned into rock. Many years later magma forced its way up again. The process repeated over and over again. The cooled lava formed layers of rock. Over millions of years, the layers built up to form a volcano. In between, the volcano spewed out ash and steam. The ash settled on the volcano and cemented into rock.

Russia	
Introduction to Russia	<ul style="list-style-type: none"> • The largest country in the world • Spread across two continents – Asia and Europe • Has 9 time zones • Has a coastline on two oceans
What is the climate of Russia like?	Most of Russia has a continental climate meaning it only has two main seasons: long, dark, cold winters and brief, often warm winters. Temperatures in January in the north east of Russia can be as low as -40°C whilst in the west in summer they can reach 30°C! This is because the amount of energy received at the Earth's surface decreases with latitude. So, the further away from the equator you go, the colder the temperature is.
What biomes exist in Russia?	<p>Grassland (steppe) – little annual rainfall which encourages grass, rather than trees, to grow.</p> <p>Temperate forest – more rainfall which allows trees to grow. Low winter temperatures mean the leaves shed at the end of Autumn.</p> <p>Taiga – characterised by coniferous forest (evergreen trees) with needle leaves and thin, acidic soils.</p> <p>Tundra – the coldest of all the biomes so no trees grow. Some plants can grow but they are small and low to the ground.</p>
Where do people live in Russia?	About 144 million people live in Russia but the population isn't evenly spread. Most people live in the west where the climate is temperate, the soils are good for farming and there are plenty of communication options e.g. ports.
Russia's economy	The largest job sector in Russia is the tertiary sector (providing services). There is also an abundance of natural resources and it is the world's largest producer of oil. These things make it a developed nation. However, Russia's harsh physical environment and its size can hinder their economy.
How does Russia influence the world?	Russia uses soft power to assert its influence in the world. This means it spreads Russian culture and art around the world e.g. Russian dolls and the Russian ballet. However, in the past Russia has used its military (hard power) to assert its influence in the world. This is how the Russian Empire and then the Soviet Union were created.



Climate Change & Glaciers

What is Climate Change?	Climate change refers to long-term shifts in temperatures and weather patterns. Human activities have been the main driver of climate change, primarily due to the burning of fossil fuels (like coal, oil and gas).
Causes of Climate Change	The greenhouse effect is a process that occurs when gases in Earth's atmosphere trap the Sun's heat. This process makes Earth much warmer than it would be.
Impacts of climate change	More frequent and intense drought, storms, heat waves, rising sea levels, melting glaciers and warming oceans can directly harm animals, destroy the places they live, and wreak havoc on people's livelihoods and communities.
An unequal world	The impacts of climate change will not be felt equally around the world. The countries that are currently emitting the least amounts of greenhouse gases are feeling the impacts of climate change the most.
What can we do about it?	We can take small personal steps to tackling climate change but global action is required to meet the challenge of staying below 2 degrees of warming. Governments and energy companies need to take large scale action because switching off light bulbs is not enough. The major change that need to happen is using renewable energy like, sun, wind, tidal.

Key terms	Interglacial: A period of milder climate in between two glacial periods. Weathering: Material being worn away by long exposure to the atmosphere.
Erosion	Plucking: Rocks become frozen to the base of the glacier. As the glacier moves it takes the frozen rock with it, leaving behind a jagged landscape. Abrasion: After the rocks are plucked, the glacier scrapes these along the ground. This works like sandpaper and leaves a smooth polished surface.
Freeze thaw weathering	 <p>Step One: Water enters cracks in the rock. The water then freezes and expands, making the crack deeper.</p> <p>Step Two: As the crack deepens, more water enters and freezes.</p> <p>Step Three: Over time, the repeated freeze and thaw breaks up the rock.</p>
Humans and glaciers	Tourism: In 2016, more than 18 million people visited the Lake District, a glaciated landscape. Resources: Ribbon lakes are a source of fresh water.



British Empire and Slavery

Empire- Countries controlled by one country. **Colony-** A country controlled by another. **Consequence-** What happens as a result of an event

Roanoke

Benin

India

Australia

Positive	Negative
<ul style="list-style-type: none"> Development of infrastructure of countries; roads, hospitals, schools. Communication improved. Introduced Democracy. 	<ul style="list-style-type: none"> Stole Resources. Enslaved natives. Destroyed cultures. Imposed religion

Slavery key concept
 The British first got involved in the slave trade in 1562 and did not stop until 1807. During this time tens of thousands of slave carrying ships made the journey across the Atlantic Ocean, it is estimated they transported 3.5 million Africans.

Enslaved life- Enslaved were sold, branded and given a new name, they were separated and stripped of their identity.



Benefits to Britain- Growth of Liverpool, Bristol, and Manchester

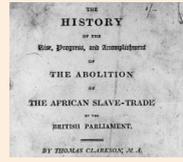


Key Themes



Revolts, Rebellion and Resistance- many enslaved fought back to help end slavery

Abolition of the Slave trade- 1807 brought an end to slavery in the British empire but it continued for 60 years after.



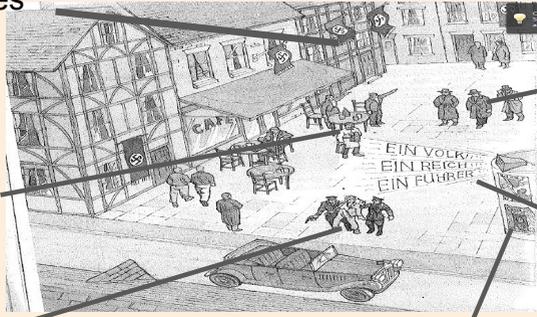
Middle Passage



Life in Nazi Germany and WWII

Nazi Flags hung in Public spaces **Nazi Control**

Nazi Salute to figures of Authority



Gestapo (Nazi Secret Police)

Speaker playing pro- Nazi slogans or Radio

Open arrests in view of public

Nazi Propaganda publicly displayed

Other methods of control

Indoctrination	The process of teaching a person or group to accept a set of beliefs
Hitler Youth	A youth group that taught young men Nazi ideologies
League of German Maidens	Female group that taught young women Nazi values



Life on the Homefront

Rationing- Forced shortages of food.



The Blitz- German bombing of British Cities 1940-41



Evacuation- Women and children moved from urban to rural areas



World at War

Evacuation of Dunkirk- The evacuation of 330,000 Allied Soldiers following defeat in France

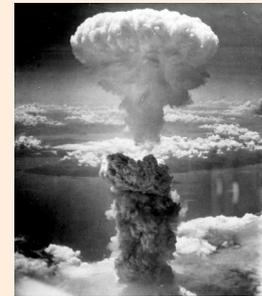


Battle of Britain- An aerial Battle to protect Britain from a possible invasion by Nazi Germany

D-Day- 6th June 1944 Allied Invasion of Europe



Dropping of the Atomic bomb





WWI (1914-1918) and Suffragettes

Causes of WWI

Militarism- An emphasis on military ideas and strength. Wanting our country to have a strong army and navy
Empire- desire to conquer colonies. This brought conflict with other countries keen to expand their empires
Alliances- group of countries that promise to protect and support each other. Triple Entente (Britain, France, Russia) Triple Alliance (Germany, Austria-Hungary and Italy)
Nationalism- The belief that your country is stronger and better than others.



Why was WWI so bloody?



Suffrage - The right to vote.



Suffragists	Suffragettes
Peaceful Protests Led marches Sent letters Signed petitions Hoped to convince politicians and the public to support them.	Violent protests Hunger Strikes and Arson Attacked politicians and public figures Chained themselves to buildings Disagreed with the peaceful protest and wanted to force the issue



Protests stopped to not distract from the war effort



Women took on roles that were predominately male such as conductors, engineers and sports teams.

Women risked their lives in the munition factories

Many men changed their view of the role of women because of their actions during the war.



PROPORTIONAL REASONING

Ratio	A statement of how two numbers compare.	Scale	The comparison of something drawn to its actual size.
Equal Parts	All parts in the same proportion, or a whole shared equally.	Variable	A part that the value can be changed.
Proportion	A statement that links two ratios.	Axes	Horizontal and vertical lines that a graph is plotted around.
Order	To place a number in a determined sequence.	Approximation	An estimate for a value.
Part	A section of a whole.	Scale Factor	The multiple that increases/ decreases a shape in size.
Equivalent	Of equal value.	Currency	The system of money used in a particular country.
Factors	Integers that multiply together to get the original value.	Conversion	The process of changing one variable to another.
Numerator	The number above the line on a fraction. The top number. Represents how many parts are taken.	Reciprocal	A pair of numbers that multiply together to give 1.
Denominator:	The number below the line on a fraction. The number represent the total number of parts.	Commutative	An operation is commutative if changing the order does not change the result.
Whole	A positive number including zero without any decimal or fractional parts.	Unit Fraction	A fraction where the numerator is one and denominator a positive integer.
Non-unit Fraction	A fraction where the numerator is larger than one.	Dividend	The amount you want to divide up.
Divisor	The number that divides another number.	Quotient	The answer after we divide one number by another. e.g. $\text{dividend} \div \text{divisor} = \text{quotient}$.

REPRESENTATIONS

Quadrant	Four quarters of the coordinate plane.	Outlier	A point that lies outside the trend of graph.
Coordinate	A set of values that show an exact position.	Quantitative	numerical data
Horizontal	A straight line from left to right (parallel to the x axis).	Qualitative	Descriptive information, colours, genders, names, emotions etc.
Vertical	A straight line from top to bottom (parallel to the y axis).	Continuous	Quantitative data that has an infinite number of possible values within its range.
Origin	(0,0) on a graph. The point the two axes cross.	Discrete	Quantitative or qualitative data that only takes certain values.
Parallel	Lines that never meet.	Frequency	The number of times a particular data value occurs.
Gradient	The steepness of a line.	Outcomes	The result of an event that depends on probability.
Intercept	Where lines cross.	Probability	The chance that something will happen.
Variable	A quantity that may change within the context of the problem.	Set	A collection of objects.
Relationship	The link between two variables (items). E.g. between sunny days and ice cream sales.	Chance	The likelihood of a particular outcome
Correlation	The mathematical definition for the type of relationship.	Event	The outcome of a probability - a set of possible outcomes.
Line of best fit	A straight line on a graph that represents the data on a scatter graph.	Biased	A built in error that makes all values wrong by a certain amount.





ALGEBRAIC TECHNIQUES

Simplify	Grouping and combining similar terms.	Difference:	The gap between two terms.
Substitute	Replace a variable with a numerical value.	Arithmetic:	A sequence where the difference between the terms is constant.
Equivalent	Something of equal value.	Geometric:	A sequence where each term is found by multiplying the previous one by a fixed non zero number.
Coefficient	A number used to multiply a variable.	Base:	The number that gets multiplied by a power.
Product	Multiply terms.	Power:	The exponent – or the number that tells you how many times to use the number in multiplication.
Highest Common Factor (HCF)	The biggest factor (or number that multiplies to give a term).	Exponent	The power – or the number that tells you how many times to use the number in multiplication.
Inequality	An inequality compares two values showing if one is greater than, less than or equal to another.	Indices	The power or the exponent.
Sequence	Items or numbers put in a pre-decided order.	Coefficient	The number used to multiply a variable.
Term	A single number or variable.	Simplify	To reduce a power to its lowest term.
Position	The place where something is located.	Non-linear	The difference between terms increases or decreases in different amounts, or by \times or \div
Linear	The difference between terms increases or decreases (+ or -) by a constant value each time.		



DEVELOPING NUMBER

Percent	Parts per 100 – written using the % symbol.	Exponent	The power – or the number that tells you how many times to use the number in multiplication.
Decimal	A number in our base 10 number system. Numbers to the right of the decimal place are called decimals.	Indices	The power or the exponent.
Fraction	A fraction represents how many parts of a whole value you have.	Negative	A value below zero.
Equivalent	Of equal value.	Significant	Place value of importance.
Reduce	To make smaller in value.	Round	Making a number simpler but keeping its value close to what it was.
Growth	To increase/ to grow.	Decimal	Place holders after the decimal point.
Integer	Whole number, can be positive, negative or zero.	Overestimate	Rounding up – gives a solution higher than the actual value.
Invest	Use money with the goal of it increasing in value over time (usually in a bank).	Underestimate	Rounding down – gives a solution lower than the actual value.
Standard (index) Form	A system of writing very big or very small numbers.	Metric	A system of measurement.
Commutative	An operation is commutative if changing the order does not change the result.	Balance	The amount of money in a bank account.
Base	The number that gets multiplied by a power	Deposit	Putting money into a bank account.
Power	The exponent – or the number that tells you how many times to use the number in multiplication.		



DEVELOPING GEOMETRY

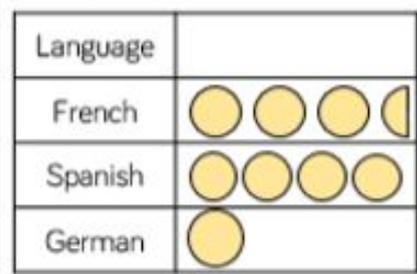
Parallel	Straight lines that never meet.	Formula	A mathematical relationship/ rule given in symbols. E.g. $L \times W = \text{area of rectangle}$.
Angle	The figure formed by two straight lines meeting (measured in degrees).	Infinity (∞)	A number without a given ending.
Transversal	A line that cuts across two or more other (normally parallel) lines.	Mirror line	A line that passes through the centre of a shape with a mirror image on either side of the line.
Isosceles	Two equal size lines and equal size angles (in a triangle or trapezium).	Line of Symmetry	Same as mirror line.
Polygon	A 2D shape made with straight lines.	Reflect	Mapping of one object from one position to another of equal distance from the given line.
Sum	Addition (total of all the interior angles added together).	Vertex	A point where two or more line segments meet.
Regular polygon	All the sides have equal length; all the interior angles have equal size.	Horizontal	A straight line from left to right (parallel to the x axis).
Congruent	The same.	Vertical	A straight line from top to bottom (parallel to y axis).
Area	Space inside a 2D object.	Pi (π)	The ratio of a circle's circumference to its diameter.
Perimeter	Length around the outside of a 2D object.	Perpendicular	At an angle 90° to a given surface.



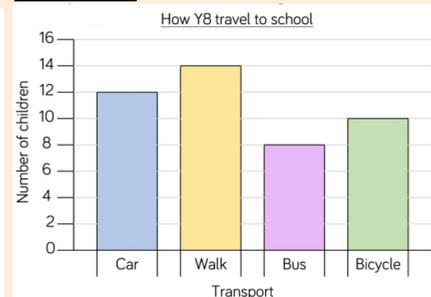
Hypothesis	An idea or question you want to test.	Total	All the data added together.
Sampling	The group of things you want to use to check your hypothesis	Frequency	The number of times the data values occur.
Primary Data	Data you collect yourself.	Represent	Something that show's the value of another.
Secondary Data	Data you source from elsewhere e.g. the internet/ newspapers/ local statistics.	Outlier	A value that stands apart from the data set.
Discrete Data	Numerical data that can only take set values.	Consistent	A set of data that is similar and doesn't change very much.
Continuous Data	Numerical data that has an infinite number of values (often seen with height, distance, time).	Spread	The distance/ how spread out/ variation of data.
Spread	The distance/ how spread out/ variation of data.	Average	A measure of central tendency – or the typical value of all the data together.
Proportion	Numerical relationship that compares two things.		

Pictograms, bar and line charts

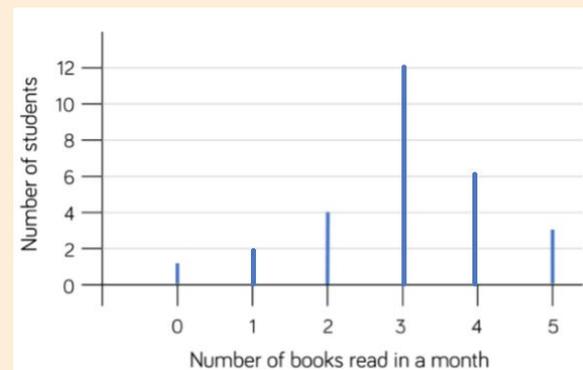
Pictogram



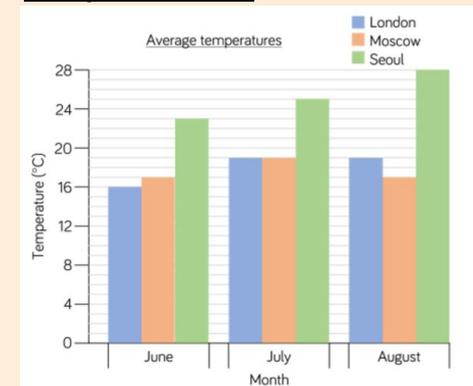
Bar Chart



Line Chart



Multiple Bar Chart





What we have & what we are

Key verbs

Avoir (the long form) - to have. having

J'ai - I have **tu as** - you have

Il a - he has **elle a** - she has

Nous avons - we have

Vous avez - you (all) have

Ils ont - they have (masc)

Elles ont - they have (fem)

Key verbs

Être (the long form) - to be, being

Je suis - I am **tu es** - you are

Il est - he is **elle est** - she is

Nous sommes - we are

Vous êtes - you (all) are

Ils sont - they are (masc)

Elles sont - they are (fem)

Articles

The definite article (the)

La - the (fem) **Le** - the (masc) **les** - the (plural)

The indefinite article (a)

Une - a (fem) **Un** - a (masc) **des** - some

Use the nouns below with the forms of avoir and the phrase:

il y a = there is/there are

Une glace - an ice cream

Des bijoux - some jewellery

Une voiture - a car une porte - a door

Une piscine - a pool un cheval - a horse

Un ordinateur - a computer

Un portable - a mobile l'eau - water

Une chambre - a bedroom

Un chien - a dog

To say what there isn't use

il n'y a pas de + the noun without the article

EG: il n'ya pas de voiture - there isn't a car

Identity & job vocabulary (use with forms of être above)

Homme - man femme - woman

Garçon - boy fille - girl

Chanteur - singer (m) Chanteuse - singer (f)

Professeur - teacher (m)

Professeure - teacher (f)

Avocat - lawyer (m) Avocat - lawyer (f)

Acteur - actor Actrice - actress

Describing objects and people c'est - it's

Triste - sad drôle - funny malade - ill

méchant(e) - nasty anglais(e) - English

Cher - expensive (m) chère - expensive (f)

Bon - good (m) bonne - good (f)

Faire - to do, doing/ to make, making

Je fais - I do/make **tu fais** - you do/make

Il fait/elle fait - he does/makes/she does/makes

Nous faisons - we do, make

Vous faites - you (all) do, make

Ils font/ elles font - they m/f do, make

Key SSC's (sound, spelling combinations) (phonics)

Qu - kuh Au - ohw Eau - ohw

Ch - sh e - eh

T/S at end of words: silent UNLESS the word that follows starts with a vowel (a,e,i,o,u).

This is called **liaison**.



Using French verbs

French long form verbs end in either ER, RE or IR

To use these in a sentence:

Je (means I) - take off ER and add **e**
Regarder - to watch **je** regarde

Tu (means you) - take off ER and add **es**
Regarder- to watch **tu** regardes

Il (means he) take off ER and add **e**
Regarder - to watch **il** regarde

Elle (means she) take off ER and add **e**
Regarder - to watch **elle** regarde

Nous (means we) take off ER add **ons**
Regarder- to watch **nous** regardons

Vous (means you all) take off ER add **ez**
Regarder - to watch **vous** regardez

Ils (means they,m) take off ER add **ent**
Regarder - to watch **ils** regardent

Elles (they,f) take off ER add **ent**
Regarder - to watch **elles** regardent

Talking about the future

Verb **aller** (to go/going)

Je vais - I go/ I am going
tu vas - you go/you're going
Il va - he goes/ he's going
elle va - she goes/she's going
nous allons -we go/we're going
Ils vont- they're going (m)
Elles vont - they're going (f)

Use the forms of **aller** in front of these words to talk about the future

Écouter - to listen
(je vais écouter - I'm going to listen)
Manger - to eat Regarder - to watch
Faire - to do/make Acheter - to buy
Visiter - to visit Chanter - to sing
Danser- to dance télécharger - to download
Voyager - to travel rester - to stay
Devenir - to become travailler - to work

Verb **faire** (to do, doing) **je fais** - I do/make
tu fais - you do/make **Il fait** - he does/makes
elle fait - she does/makes **nous faisons** - we do/make
Vous faites - you all do/make **ils font** -they do (masc)
Elles font - they do (fem)

Saying what people do/make

De la natation - some swimming
(je fais de la natation- I do some swimming)
De la planche à voile - some windsurfing
De la plongée - some diving des visites - some visits

Key SSC's (sound, spelling combinations) (phonics)

Qu - kuh Au - ohw Eau - ohw
Ch - sh e -eh

T/S at end of words: silent UNLESS the word that follows starts with a vowel (a,e,i,o,u). This is called **liaison**.



Saying what we do & what we want

AR verbs (verbs ENDING in AR)

To mean 'I' with a verb- change ending to 'o'

To mean he/she/it with a verb- change ending to 'a'

Escuchar - to listen

Escucho - I listen

Escuchas - you listen

Escucha - he/she/it listens

Cantar - to sing

Canto - I sing

Cantas - you sing

Canta - he /she /it sings

The verbs below work in a similar way:

Hablar - to talk llegar - to arrive

Comprar - to buy bailar - to dance

Necesitar- to need llevar - to wear

usar - to use caminar - to walk

Estudiar -to study

Using hay - there is/there are

Hay una chica - there is a girl

Hay un chico - there is a boy

Useful adjectives (usually follow noun)

hermosa/o - pretty activo/a - active

Verde - green amarillo/a - yellow

Azul - blue rojo/a- red feo - ugly

bonito/a - beautiful pequeño/a - small

barato/a- cheap antiguo/a - old

caro/a - expensive malo/a - bad

bueno/a - good

¿cómo es? What's it like?

(cómo usually means 'how')

Family un hermano- a brother

Una hermana - a sister un padre - a dad

Una madre - a mum una tia- an aunt

Un tío- an uncle

En mi familia hay- in my family there is...

The verb **DAR** - to give, giving

Doy - I give das - you give

Da - he/she/it gives

The verb **QUERER**- - to want, wanting

**THIS VERB CAN BE USED TO TALK ABOUT
THE FUTURE**

Quiero - I want Quieres- you want

Quiere- he/she/it wants

Quiero cantar - I want to sing

Quiero un regalo - I want a gift

Quieres escuchar - you want to listen

Quieres un hermano - you want a brother

Making plurals of nouns (more than 1 object)

Nouns that end in consonants (not a,e,i, o, u) add **es** rather than just **s** when they are plural

Articles THE

El- the (m) La- the (f) los-the (plural m)

Las - the (plural f)

Articles A

Un - a (m) una - a (f) unos - some (m)

Unas - some (f)



Describing family and using modal verbs

Verb TENER (to have, having)

Tengo I have **tienes** you have **tiene** - he/she/it has
Tenemos - we have **tienen** - they have

Use with TENER:

El perro - the/a dog
 la abuela - the grandmother
 El abuelo - the grandfather
 El primo - the male cousin
 la prima - the female cousin

Verb PODER (to be able/can)

Puedo - I can/I'm able
 Puedes - you can / you're able to
 Puede - he/she can / he/she is able to

Verb DEBER (to have to/must)

Debo - I have to/I must
 Debes - you have to /must
 Debe - he/she has to/must

Adjectives (usually follow noun)

hermosa/o - pretty activo/a - active
 Verde - green amarillo/a - yellow
 Azul - blue rojo/a - red

Saying what people DO

Hacer - to do/to make **hago** - I do/make **Haces** - you do/make
hace- he/she/it does/makes

Use with forms of HACER: la actividad - the activity el deporte - sport

El dibujo - drawing los deberes - homework
 Cuando - when para - for la noche - night la mañana- morning
 La tarde - afternoon/evening por la tarde - in the afternoon/evening

Use with forms of PODER & DEBER

cambiar - to change jugar - to play lavar - to wash limpiar - to clean
 Participar- to participate pedir - to ask for preguntar - to ask (question)
 el compañero - the classmate (m) la compañera- the classmate (f)
 El / un favor - the/a favour el material - the material algo - something
 El coche - the car la ropa - the clothes el suelo - the floor si- if
 Otro - another aunque - although
 Eg: Puedo pedir papel - I can ask for paper debe preparar la comida -
 He/she must prepare the food

AR verbs (verbs ENDING in AR)

To mean 'I' with a verb- change ending to 'o'

To mean he/she/it with a verb- change ending to 'a'

Escuchar - to listen
Escucho - I listen
Escucha - he/she/it listens

Question words:

¿Dónde? - where?
 ¿Qué? - what? / which?
 ¿Cómo? - how?
 ¿Cuánto? - how much?
 ¿Cuántos/as? - how many?
 ¿Quién(es)?- who?
 ¿Cuál(es)? - which one?

Talking about LOCATION

Debajo de - under delante de- in front of Detrás de - behind
 fuera de - outside of El este - the east el oeste- the west



Music for Events and Minimalism)

Music for events

Music is used at lots of events such as carnivals, olympics, coronation, funerals, weddings etc.

The type of event dictates how the music should sound.

Tonality:

Major - Happy/bright/cheerful sounding tone

Minor - Sad/sinister/evil sounding tone

Texture:

Monophonic - One part or many parts playing the same thing

Polyphonic - 2 or more parts/melodies playing together

Homophonic - 2 or more parts playing the same rhythm, but at different pitches (harmony)

Dynamics:

Loud forms of dynamics are often used for celebratory occasions such as festivals or carnivals,

Fortissimo - very loud

Forte - loud

Mezzoforte - moderately loud

Soft forms of dynamics are used for more sombre and serious events such as funerals and memorials

Pianissimo - very soft

Piano - soft

Mezzopiano - moderately soft

Tempo:

Vivace - lively and fast

Allegro - fast

Andante - walking pace

Lento - slowly

Slower music brings with it either a sense of focus and anticipation that is more fitting for tense or exciting events like before a 100m sprint, or feelings of romance or sadness.

Hearing music that is allegro might suggest intensity or celebration like the start of a football match.

Minimalism

A musical style that uses a small amount of musical material on which to build a piece. It is characterised by extreme sparseness and simplicity.

When - The style originated in the late 1960's

Where - Minimalist music has its origins in New York Cities Downtown Scene

Who - Key minimalist composers La Monte Young, Terry Riley, Steve Reich, and Philip Glass

What - Some famous minimalist pieces include: Pendulum Music, Clapping Music and Tubular Bells

Minimalist techniques

Minimalist music is based on the use and development of small musical ideas. The following techniques are used to develop these:

Note addition - starting with a short amount of material and adding a note each time

Note subtraction - starting with a longer amount of material and removing a note each time

Layering - Adding a new part on each repetition evenly

Augmentation - Lengthening the value of a note (doubling)

Diminution - Shortening the value of a note (halving)

Ostinato - Continuously repeated pattern of notes (can be rhythm or melody)

Metamorphosis - changing one note of the melody each time to make a new one

Sequence - Same thing repeated at a higher or lower pitch

Imitation - One part copying another

Pedal Note - A long held low pitched note (inverted pedal = long held high pitched note)

Inversion - Repeating the pattern using opposite intervals, e.g. if originally your first two notes went up by 3 notes, when inverting you would go down by 3 notes

Retrograde - A pattern of notes played in reverse (backwards)

Phasing - having a slightly longer and shorter version of the same melody repeating until they are back in sync with one another

Music for events - Music Festival

Lots of planning is required for a festival, some things to consider are:

Artist, venue, promotion, refreshments, tickets, security, staffing, health and safety, schedule, funding, marketing, merchandise etc.

Some of the job roles involved in the event are:

Promoter, live sound technician, performers, lighting engineer, security, medical etc.



The Romantic Era and Programme Music

Romantic period facts: Date approximately 1800-1910

- Compositions became increasingly **expressive** and **inventive**.
- Romantic music focuses on **emotion** and **passion**. Music was used to evoke **stories, places** or **events**.
- Pieces took inspiration from **art** and **literature**. **Nature** was a particularly popular subject.
- Instrumental music continued to develop and **virtuoso** compositions were created, demanding a high degree of skill in technical playing.
- For Romantic composers **originality** and **self expression** were key to their methods of composition.

Romantic composers and famous works:

- Pyotr Ilyich Tchaikovsky 1840-1893 -
- Edvard Grieg 1843-1907
- 'Peter Gynt Suite'
- Johannes Brahms 1833-1897 - 'Brahm's Lullaby
- "Cradle song".

Romantic orchestra instruments - larger scale than the classical era:

- **Strings** - violin, viola, cello, double bass - laeger numbers
- **Woodwind** - flute, piccolo, oboe, clarinet, bassoon, double bassoon
- **Brass** - trumpets, french horn, trombone (tubas added later in the period)
- **Percussion** - full percussion section and **piano**

Compositional features/key terms:

- **larger orchestras**
- use of **rubato** - slight tempo variations throughout the piece
- adventurous **harmonies** and **modulations** (*change of key*)
- lots of **dynamic contrast** including exaggerated **diminuendo**, **crescendo** and **sforzando** (*a sudden force/accnt*)

Composer: **Ludwig Van Beethoven** (1770-1827). Born in Bonn

- A German composer and pianist.
- Taught music by his father and **Haydn**
- Deaf by middle age
- **Defining figure** in western music history, he wrote - 1 opera, **9 symphonies**, 31 orchestral and 77 choral works, 87 songs, 92 chamber pieces
- Study piece: Beethoven Symphony No.5 in C Minor.**
- Recognised by the 4 note opening **motif** known as the "**fate**" rhythm
- This **motif** forms the basis of the piece

Key Information:

- Symphony - louder and longer**
- Written for an **orchestra**
- Large scale work with **4 movements** (*sections*)
- Better instrument build and more players meant lots of **timbral colour** (*the tone of the instrument sound*).
- **Tone poem** (*orchestral piece representing a poem's contents*)
- **Italian Opera** was transformed by Verdi to include political, social and nationalistic themes

Programme Music is music that:

- Tells a story
- Represents a character/place
- Represents a mood/emotion

This type of music has existed in some form from the Renaissance Period and still exists today as a descriptive and narrative musical form.

Some examples:

- Vivaldi's The Four Seasons (1723)
- Rameau's storm entr'acte from Les Boréades (1763)
- The instrumental accounts of the divine spark, or whales and donkeys from Haydn's The Creation (1798)
- Debussy's La mer (1905)
- Messiaen's Quartet for the End of Time (1941)

Study piece: **Camille Saint-Saëns** **Danse Macabre (1874).**

- Also called the Dance of Death
- A **tone poem** based on a poem by Henri Cazalis
- An orchestral piece originally written for voice and piano
- The voice was replaced by a solo violin who acts as "death" conducting his orchestra of skeletons
- Set on halloween
- Was used as the theme music for crime drama Jonathan Creek

Ensure musical analysis explains the features and how these develop.

Texture:

- **Monophonic** - One part playing or every part playing the same thing
- **Polyphonic** - Different melodies playing together at the same time
- **Homophonic** - More than one person playing the same rhythm, different pitch

Structure:

- **Binary form** - 2 different sections AB
- **Ternary form** - 3 sections ABA
- **Rondo form** - 5 sections ABACA



Film Music and Musical Theatre

Film music:

Silent film - a film with no sound (*dialogue or sound within the film itself*).

- Progression: 1 live musician (piano/organ) playing with the film
- Group of performers using cue sheets to tell them when to play what song.
- Live music was used to help tell the story, or represent the mood of the film.
- Developed into pre-recorded pieces and then into what we have today.

Key terminology:

Genre - a style or category of an artform based on specific characteristics

Example film genres include: horror, science fiction, romance, western.

Major tonality - music that sounds happy, cheerful, positive in mood

Minor tonality - music that sounds sad, sombre, dark, sinister in mood

Dissonance - a clash of notes - harsh unpleasant sounding

Pedal note - long held note

Ostinato - continuously repeated pattern of notes

Sequence - same thing repeated at a higher/lower pitch

Motif - a short musical idea on which a piece of music is built

Leitmotif - a short musical idea that represents a place, character or object

Diegetic sound - when you can see the source of the sound on screen, e.g. *dialogue, music playing from a radio, car engine*

Non-diegetic sound - when you cannot see the source of the sound on screen, e.g. *music bed, narrator etc.*

Ambient sound - the background noises present at a location/in a scene

Influential composer: John Williams - American composer born 1932

- Composer, conductor, pianist and trombonist
- Has written some of the most influential film scores of all time including, *Harry Potter, Star Wars, Indiana Jones, Jurassic Park, Schindler's list.*
- Written for more than 100 films, many directed by Steven Spielberg
- He has also composed symphonies and concertos for various instruments

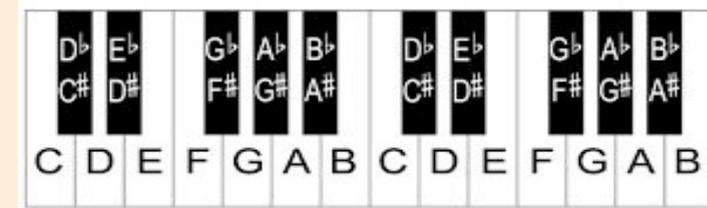
Study piece 1) Theme from Jurassic Park

- Centred around **2 main musical themes** - trumpet fanfare on the "Journey to the island" and the slower, more graceful one "Theme from Jurassic park".
- "Theme from Jurassic Park" is based on a **3 note motif**.

- Helps to reinforce the emotion of the scenes and help the audience connect

Study piece 2) Hedwig's theme from Harry Potter

- Opening theme is played by a **solo celesta** (*like a piano with a bell sound*)
- Is used throughout the film franchise and developed based on the changing events in the story and emotions/feelings of the characters



TREBLE LINES: E G B D F	TREBLE SPACES: F A C E
BASS LINES: G B D F A	BASS SPACES: A C E G

Musical theatre:

- Form of performance that includes **singing, dancing and acting**
- Earliest forms trace back to **Ancient Greece**
- First musical performed in America was called the '**Black Crook**' 1866
- Many performances in **London's West End** or **Broadway** in New York
- Musicals began with a focus on show stopping numbers, but eventually returned their focus to the plot line
- **Golden age** of Musical theatre was **1940's**
- **Mega musicals** were shown in Britain with large budgets using advanced technology, lighting and special effects
- **Jukebox musicals** use music from an era or an artist to tell a story

Influential composer 1: Stephen Sondheim - Sweeney Todd

- Well known for challenging and complex writing, particularly for vocalists
- Wrote music based on 5/6 short musical ideas that refer to different characters and these are then blended when they meet

- Sweeney Todd is a darker and less conventional musical theatre work

Influential composer 2: Andrew Lloyd Webber - Phantom of the opera

- English composer and theatrical producer who wrote a lot of works in partnership with Tim Rice - the first of which was "Joseph"

- Other musicals include "**Cats**", "**Phantom of the Opera**" and "**Evita**".

- Has written for a lot of different genres and still has musicals in the West End today.



Definitions

Health – State of complete physical, social, emotional well-being.

Balanced diet – includes food from all food groups to fulfil a person's nutritional needs.

Calories – Units of energy, the energy people get from the food and drink they consume.

Nutrients – Nutrients are the substances that our bodies process to enable them to function.

Rules/regulations

Netball	<ol style="list-style-type: none"> 1M rule - When marking a player in possession you must be 1M away from them Shooting - You are only allowed to attempt to shoot when positioned in the attacking D
Badminton	<ol style="list-style-type: none"> Doubles - In doubles game play they court layout is 'short and wide' Net serve - If the serve hits the net and lands in your opponents service area you replay the point.
Rugby	<ol style="list-style-type: none"> Play of the ball - The ball must go backwards when restarting play after a player is tackled Knock on - If the ball is dropped forwards then the game is stopped and the opposition team receive the ball
Football	<ol style="list-style-type: none"> Offside - this is when an attacking player is goes past the line of defenders when the ball is played to them, Throwings - Both feet must be kept on the floor when restarting play with a throwing.

Sporting Context

<u>Key term</u>	<u>Definition</u>
Lofted pass	A powerful kick used to send the ball in the air to a teammate.
Side foot shot	Striking the ball with the inside of the foot typically used for accuracy and placement .
Offload	Releasing the ball to a teammate before being tackled to the floor
Two handed kick	Holding the ball in both hands kicking the bottom of the ball for height or distance .
Overhead clear	Holding the racket above your head with the aim to hit the shuttle high and to the back of the court .
Doubles	Two players playing a competitive game against another two players following set rules.
Switch of play	Moving the ball from one side of the area to another as quick as possible
Possession	Keeping the ball for a period of time within your team
Pivot	You can move you non landing foot one step in any direction
Marking	Following a player who is in the same area of the court as you to stop them finding space to receive the ball

Cardiovascular System



Cardiovascular System and the role in sport	
<u>Key term</u>	<u>Definition</u>
Heart Rate	The speed at which the heart beats in one minute.
Stroke Volume	The amount of blood that is pumped out of the heart by each ventricle during one contraction/beat.
Cardiac Output	The amount of blood that is pumped out of the heart in one minute.

Rules & Regulation	
<u>Fitness</u>	<ol style="list-style-type: none"> Warm up - Before participating in any fitness activity you must complete a 5 stage warm up. Cool down - After participating in any fitness activity you must complete a cool down to prevent any muscles soreness.
<u>Cross Country</u>	<ol style="list-style-type: none"> Course route - start and finish lines must be marked and clear for all participants. The course must be marked with flags and guides. Team running - When competing in a team event the participants must remain in a designated area before setting off.
<u>Gymnastics</u>	<ol style="list-style-type: none"> Flight - Participants must ensure that they land two footed and have bent knees when performing any flight activity. Trampettes/springboards - Participants must jump with two feet when using the equipment

Sporting Context	
<u>Key term</u>	<u>Definition</u>
Pacing	Maintaining a steady speed suitable for the event
Sprint finish	At the end of the race you increase your speed further to cross the line.
HITT training	This method of training is High Intensity Interval Training. This is where you work as hard as possible for a set period of time , followed by a period of rest .
Interval Training	Interval training is a type of training exercise that involves a series of high-intensity or low intensity workouts interspersed with rest or periods .
Counter balance	A weight that balances another weight for example to people leaning on each other to balance .
Counter tension	This is any balance where a person uses another person's weight to stay balanced by pulling away from them .
Levels of movement in Dance	Performing a range of different movements on the ground and in the air .



Definitions

Sportsmanship – A set of unwritten rules that athletes stand by, such as shaking hands..

Gamesmanship – Bending the rules to gain an advantage over the opponent.

Rules/regulations

Cricket	<ol style="list-style-type: none"> Wide - If the ball is bowled too wide of the batter, it is considered a no ball and a run is awarded to the opposite team. 4 runs scored- When the ball is struck by a batsman and reaches the boundary having bounced before getting there
Athletics	<ol style="list-style-type: none"> Handover - During the handover in a relay race, the baton must be passed without dropping it and the receiver must be moving.
Rounders	<ol style="list-style-type: none"> Over running - If a batter is waiting at a base, the next batter must not outrun them around the bases otherwise the first batter would be called out. No ball - A no ball is called when the ball is bowled above the head, below the knee or is too wide to be hit.

Sporting contexts

<u>Key term</u>	<u>Definition</u>
Long Barrier	Turning your leg to create a barrier to stop the ball from rolling past you when fielding
Underarm throw	The back to front swing of the arm and hand, used for accuracy and shorter distances when throwing
Hitting	Sideways stance with the bat at shoulder height, the performer should swing though using their hips
Crouched start	A crouched starting position when starting an athletics race, participants start in a low position with their knees bent and move to a standing position with their legs extended.
Dipped finish	When finishing a race lean forwards towards the finish line
Change over	Passing the baton over from one runner to another during a race
Glide technique	When preparing to throw a shot put, using your feet in a gliding motion towards the throwing line to generate more power.
Legal throw	Not crossing the throwing line when attempting a field event



PSHE TERM 1: Financial awareness & Political Awareness

Term 1a: Financial awareness

Want:	A desire to possess or do something e.g. you want a sports car
Need:	When you require something because it is essential or very important rather than just desirable e.g. water
Income:	Money (or some equivalent value) that an individual or business receives, usually in exchange for providing goods or service
Expenditure:	An outflow of money, or any form of fortune in general, to another person or group to pay for an item or service
Budgeting:	This is looking at how much you earn and how much you spend. It is an estimate of income and expenses.
Credit:	A credit card means you can buy something now but you don't have to pay for it until later
Debit:	A debit card means that the money will instantly be deducted from your current account

Term 1b: Politics

Democracy:	The word comes from two Greek words that mean 'rule by the people' - a democracy the people have a say in how the government is run
Voting:	Where the people decide who should represent them in parliament. The system used in the UK is 'first past the post'
FPTP	First Past The Post is a voting system: the candidate who wins the most votes in each constituency is elected
MP:	A member of parliament is the representative of the people who live in their constituency
Political parties:	An organized group of people who have the same ideology, or who otherwise have the same political positions

Term 1a: Why is being financially aware important?

Students who learn to manage their finances early often become adults who are better equipped to live independently. By teaching students to make good financial decisions, they learn to pay down debt or avoid it altogether. They can learn to budget so they know how much money they can or can't spend.

Students who learn to navigate the world of debt and credit will tend to have more money for savings, which can help pay for large expenses without relying on credit, and they can set aside money for retirement accounts.

Term 1b: Types of political party

The UK political system is a multi-party system. Since the 1920s, the two dominant parties have been the Conservative Party and the Labour Party. Before the Labour Party rose in British politics, the Liberal Party was the other major political party, along with the Conservatives.

Who you can turn to for support:

- Parents or trusted family member
- School safeguarding team or any member of staff
- Turn 2 Us: <https://www.adviceuk.org.uk/turn2us-benefits-calculator/>
- Citizens advice: <http://www.citizensadvice.org.uk/>



PSHE Term 2: Online Safety & Sex/ Relationships

Term 2a: Online safety

Social media	Social media is any digital tool that allows users to quickly create and share content with the public. Social media encompasses a wide range of websites and apps.
Cyber safety	Online safety, cyber safety or E-Safety is trying to be safe on the internet and is the act of maximizing a user's awareness of personal safety and security risks to private information and property associated with using the internet
Sexting	Sexting is sending, receiving, or forwarding sexually explicit messages, photographs, or images, primarily between mobile phones, of oneself to others
Grooming	Online grooming is when someone uses the internet to trick, force or pressure a young person into doing something. Someone who's grooming others online will sometimes build their trust before talking about doing anything sexual. It's not easy to know if someone's trying to groom you
Dark web	Sometimes, the dark web is also called the dark net. The dark web is a part of the deep web, which just refers to websites that do not appear on search engines

Term 2b: Sex and Relationships

Consent	Consent is permission for something to happen or agreement to do something
Contraception	A method or device used to prevent pregnancy. These sometimes also protect against sexually transmitted diseases
Teenage pregnancy	Teenage pregnancy is defined as the number of conceptions per thousand young women under 18 years of age
Pornography	Printed or visual material containing the explicit description or display of sexual activity, intended to stimulate sexual excitement

Term 2a: The laws around sexting

Anyone who has or sends indecent images of someone under the age of 18 is breaking the **law**. Both having and distributing images of this nature is an offence under the Sexual Offences Act 2003. Encouraging someone to send pictures or 'sexts' can also be illegal.

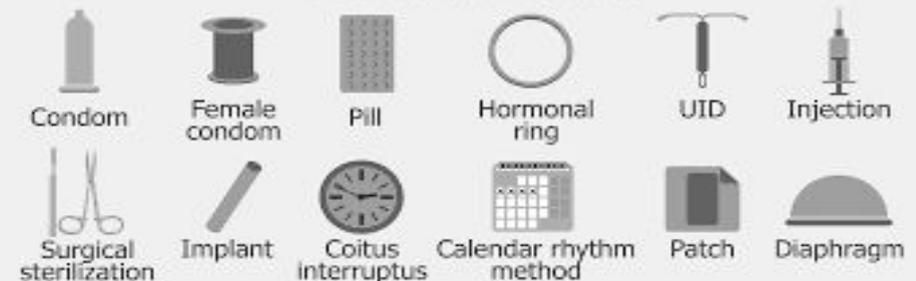
Who you can turn to for support:

- Parents or trusted family member
- School safeguarding team or any member of staff
- NSPCC: <https://www.nspcc.org.uk>
- Victim Support: <https://www.victimsupport.org.uk>
- Rainn: <https://www.rainn.org>
- Childline: <https://www.childline.org.uk/info-advice/bullying-abuse-safety/online-mobile-safety/online-grooming/>

Term 2b: Myths and stereotypes around consent

- The clothes a person wears does not mean they should expect to be raped.
- The majority of rape cases are where the offender and complainant know each other
- Trauma can affect memory and create inconsistency
- Being drunk makes the complainant vulnerable. It does not mean they were 'asking for it'
- Late reporting may be due to inability to cope with the trauma of the incident, fear of repercussions, maturity with age recognising the abuse, control of the complainant or fear of going to court

Birth control methods





PSHE Term 3: Your Health & The Wider World

Term 3a: Looking after your health

Nicotine addiction	An addiction is an urge to do something that is hard to control or stop. In this instance, somebody who smokes may be addicted to Nicotine
Vaping	E-cigarettes and vape pens use a battery to heat up a special liquid into an aerosol that users inhale. It's not just harmless water vapor. The e-juice that fills the cartridges usually contains nicotine (which is extracted from tobacco), propylene glycol, flavourings and other chemicals
Cancer awareness	Cancer is a condition where cells in a specific part of the body grow and reproduce uncontrollably. The cancerous cells can invade and destroy surrounding healthy tissue, including organs. Cancer sometimes begins in one part of the body before spreading to other areas
First aid	First aid is the first and immediate assistance given to any person suffering from either a minor or serious illness or injury, with care provided to preserve life, prevent the condition from worsening, or to promote recovery
Domestic conflict	Domestic abuse is any type of controlling, bullying, threatening or violent behaviour between people in a relationship. It can seriously harm children and young people and witnessing domestic abuse is considered as a form of child abuse

Term 3b: The wider world

Climate change	Climate change includes both the global warming driven by human emissions of greenhouse gases and the resulting large-scale shifts in weather patterns
Ethical consumerism	Ethical consumerism is a type of consumer activism. It is practiced through the buying of ethically-made products that support small scale manufacturers and local artisans, protect animals and the environment and the boycotting of products that exploit children as workers, test on animals or damage the environment
Sweatshops	A workplace with very poor, socially unacceptable or illegal working conditions
Child labour	Child labour is a violation of childrens' rights - the work can harm them mentally or physically, expose them to hazardous situations or stop them from going to school.
Fair trade	Trade between companies in developed countries and producers in developing countries in which fair prices are paid to the producers

DANGER

RESPONSE

AIRWAY

BREATHING

CIRCULATION

Term 3a: Vaping facts

- Vaping is less harmful than smoking, but it's still not safe
- Vaping is bad for your heart and lungs
- Electronic cigarettes are just as addictive as traditional ones
- A new generation is getting hooked on nicotine



Who you can turn to for support:

- Parents or trusted family member
- School safeguarding team or any member of staff
- Action Addiction: <https://www.actionaddiction.org.uk>
- NSPCC: <https://www.nspcc.org.uk>
- Childline: <https://www.childline.org.uk/info-advice/bullying-abuse-safety/online-mobile-safety/online-grooming/>
- Ethical Consumer: <https://www.ethicalconsumer.org>

Term 3b: Fairtrade products

Buying Fairtrade is easy. There are over 6,000 Fairtrade products, so when you shop, look for the FAIRTRADE Mark.

- Bananas
- Chocolate
- Coffee
- Clothes
- Flowers
- Tea
- Wine
- Beauty products
- Herbs and spice



HINDUISM

Key People/beings	
Brahmin	A teacher or priest
Brahman	The ultimate reality of the universe, invisible Spirit and source of all matter.
Guru	A greatly respected wise person and teacher
Key Places	
Badrinth	A city in India whose temple is dedicated to Vishnu and is often visited by pilgrims
Ganges	A sacred river in India where Hindu pray and perform cleansing rituals.
Mandir	A Hindu temple
Varanasi	A city in the Himalayas visited by many pilgrims
Key Practices	
Arti	Means 'complete love'. Arti is a form of worship and is performed by waving a lighted candle in front of a deity.
Havan	Means 'to offer'; a fire ceremony is used to make the offerings
Puja	Worship that takes place at home or in a temple
Upananyana	Sacred thread ceremony when a boy enters the student stage of his life.
Key Festivals	
Diwali	An autumn festival which celebrates the return of Rama and good overcoming evil
Holi	A spring festival which celebrates the defeat of the wicked Princess Holika

Key Concepts

Atman	Soul, spirit, true or unique self
Dharma	The 'moral code' in Hinduism, making up the basic laws of life and the universe.
Karma	Law of cause and effect in nature
Moksha	Means 'liberation' when all negative karma is overcome and the atman becomes one with Brahman
Murti	An image or statue of a god or deity
Samsara	The process of birth and rebirths over many lifetimes
Samskara	Sixteen stages of life each of which has a special ceremony

The Tri-Murti

Brahma



- Represents God the creator.
- Has four hands symbolising the four corners of the cosmos
- Has four faces symbolising the four Vedas (the ancient Hindu books)
- Holds a book as a symbol of knowledge
- Wears a crown to show his authority.

Vishnu



- Represents God the preserver of life.
- People who only worship Vishnu are called Vaishnavites
- Shown in two ways:
 - Dark blue, standing up, with four arms each holding a shell (represents 'Aum'), a mace (represents mental and physical strength), a discus (represents the mind) and a lotus flower (represents enlightenment)
 - Lying down on the coils of a snake

Shiva



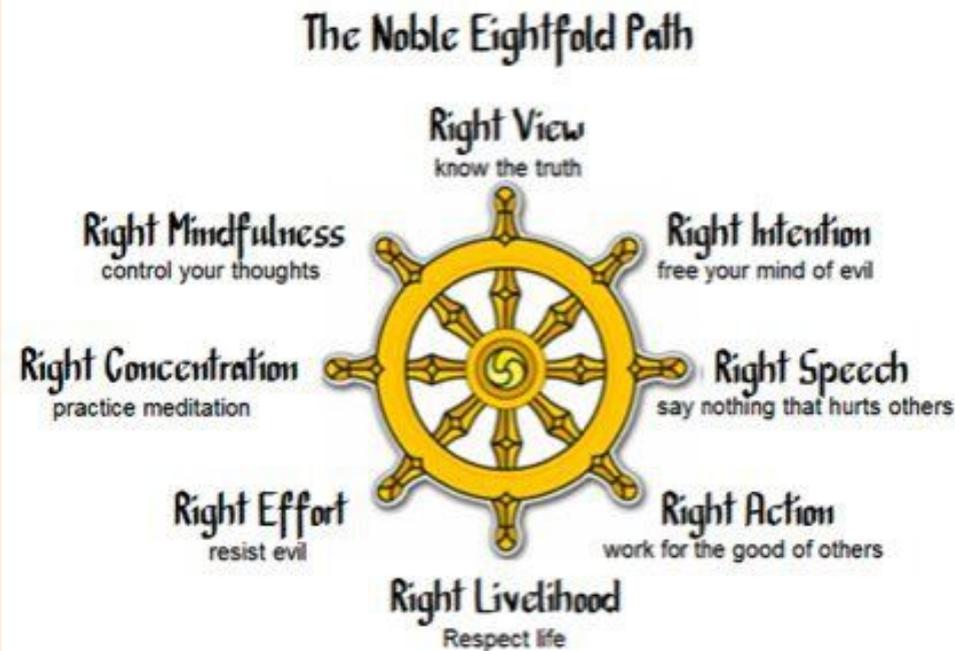
- Represents God who transforms the universe.
- Transforms the universe by preserving and destroying it.
- People who only worship Shiva are called Shaivites
- Shiva is shown in many ways:
 - The Lord of the Dance with fire surrounding him whilst he beats a drum. Represents the constant motion of matter and his power to create and destroy.
 - In meditation. He is focused on God.



BUDDHISM

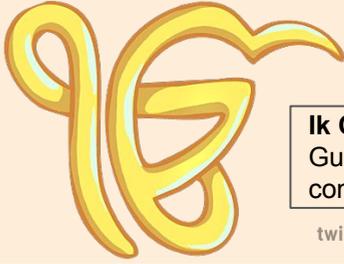
Key People	
Ashoka	An Indian Emperor who between 272 and 231 BCE and became the first Buddhist ruler
The Buddha	The name given to Siddhartha Gautama, an Indian prince born in 563 BCE, after he achieved enlightenment; the central figure of Buddhism.
Channa	Siddhartha's servant
Devadatta	Siddhartha's cousin
Mara	The demon Lord who tried to prevent Siddhartha from achieving enlightenment under the Bodhi tree.
Siddhartha Gautama	An Indian Prince born in 563 BCE who become the Buddha. He died in 486 BCE
Yashodhara	Siddhartha Gautama's cousin and wife

Key Vocabulary	
Bhikku	A Buddhist monk; nuns are called bhikkhunis
Bodh Gaya	The holiest site in Buddhism, where Siddhartha meditated under a Bodhi tree and became the Buddha
Brahmins	Priest in ancient India who interpreted Queen Maya's dream when she was pregnant with Siddhartha
Dhammapada	A Buddhist scripture that contains the teachings and sayings of the Buddha
Dharma	The Buddha's teachings
Dukkha	The suffering or dissatisfaction of all living beings
Eightfold Path	Eight instructions taught by the Buddha to help people overcome suffering and reach enlightenment
Enlightenment	The state of being awakened to the truth about life
Five precepts	Five rules that all Buddhists are expected to follow
Four Noble Truths	The basis of the Buddha's teachings: all creatures suffer; suffering is caused by selfish desires; suffering can be ended; the way to end suffering is to follow the Eightfold Path.
karma	The forces that influence people's fortune and future rebirth
meditation	The practice of focussing the mind
Middle Way	A lifestyle between luxury and having nothing at all
Nirvana	A state of bliss experienced by those who have found enlightenment
Pali Cannon	The main sacred text for many Buddhists.
Samsara	The continual process of life, death and rebirth
Sangha	The community of Buddhist monks and nuns





SIKHISM



Ik Onkar - "There is only one God" as written in the Gurmukhi script. The belief in one God is a central concept in Sikhism

twinkl

Key People

Jarnail Singh Bhindranwale	A Sikh leader who, with his supporters, occupied the Golden Temple in 1984, demanding right for Sikhs
Indira Gandhi	An Indian Prime Minister who ordered the army to clear Sikh protesters from the Golden Temple in 1984; she was later murdered by two of her bodyguards
Duleep Singh	Thought to be the first Sikh to live in the UK
Guru Nanak	The first Guru and founder of Sikhism
Ravinder Singh	A British Sikh who founded Khalsa Aid in 1999

The 5 K's

The five articles of faith worn by the Khalsa

Kesh	Uncut hair
Kangha	A wooden comb
Kara	A steel bracelet
Kachera	Special cotton underwear
Kirpan	A short sword

Key Concepts

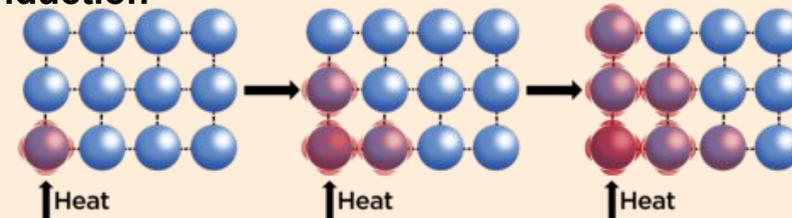
Atma	The Soul
Gurmukh	Someone who puts God and the teachings of the Gurus at the centre of their life
Gurpurb	A festival to mark the birth or death of a guru
Guru	A religious teacher or guide who leads a follower from ignorance to enlightenment
Guru Granth Sahib	The Sikh holy book
Karma	The forces that influence people's future rebirths
Khalsa	The community of Sikhs founded by the tenth Guru
Langar	A word mean 'free kitchen'; a communal eating area found in every Sikh place of worship
Manmukh	Someone who is self-centred and does not put God at the centre of life
Maya	The temporary and illusory nature of the world
Mukti	Union with Waheguru; to escape the world of illusion and the cycle of life, death and rebirth
Sewa	Selfless service to others
Vaisakhi	The Sikh festival marking the start of the new year; it also remember the foundation of the Khalsa by Guru Gobind Singh in 1699
Waheguru	The most common name used by Sikhs to describe God meaning 'wonderful Lord/Guru'



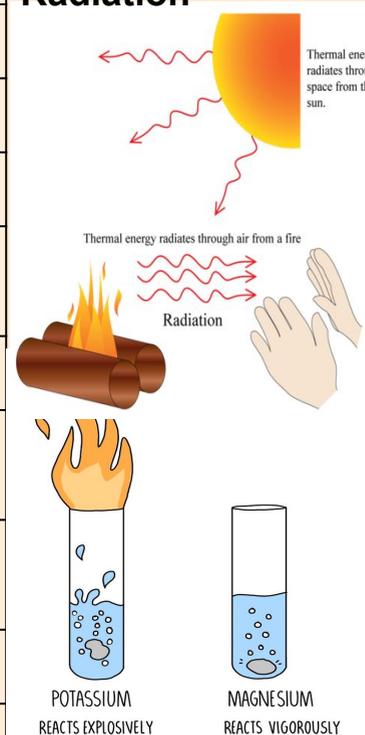
Heat Transfer and Reactivity

Key Definitions	
Thermal Energy	Heat energy - this heat is generated by the movement of tiny particles within an object
Temperature	A measure of the warmth or coldness of an object or substance
Thermometer	Used to measure the temperature of an object
Conduction	The transfer of heat energy in solids
Convection	The transfer of heat energy in a liquid or a gas.
Radiation	The transfer of heat energy by electromagnetic waves without involving particles
Conductor	A good conductor will allow heat to travel through it
Insulator	A material that does not let heat pass through it. They usually have air trapped in them.
Infrared	Infrared radiation is a type of light that feels warm but cannot be seen
Malleable	Can be bent or hammered into shape without shattering
Ductile	Capable of being stretched into a thin wire without becoming weaker
Sonorous	Produces a ringing sound when struck
Reactivity	The tendency of a substance to undergo chemical reaction
Displacement	When a more reactive metal replaces a less reactive metal in a compound

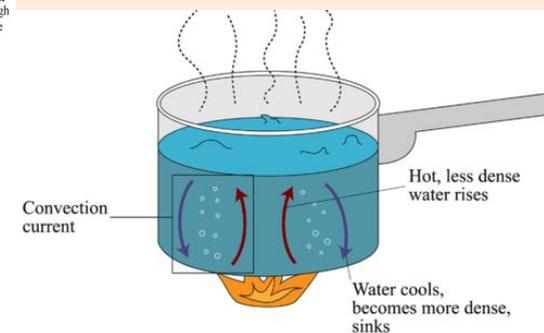
Conduction



Radiation



Convection



potassium	most reactive	K
sodium		Na
calcium		Ca
magnesium		Mg
aluminium		Al
carbon		C
zinc		Zn
iron		Fe
tin		Sn
lead		Pb
hydrogen		H
copper		Cu
silver		Ag
gold		Au
platinum	least reactive	Pt

magnesium and sulfuric acid	●●●●●●	magnesium sulfate
aluminium and hydrochloric acid	●●●●●●	aluminium sulfate
zinc and nitric acid	●●●●●●	aluminium chloride
aluminium and sulfuric acid	●●●●●●	zinc nitrate
lead and hydrochloric acid	●●●●●●	lead chloride



Respiration and Variation and Evolution

Key Definitions	
Gene	Made of DNA and control our characteristics
Variation	Differences between individuals
Species	A group of organisms that can reproduce to make fertile offspring
Inherited	Characteristics we get from our parents
Extinct	There are no more of the organism alive
Endangered	There are very few organisms left
Breathing	The process of taking air into and out of the lungs
Respiration	The reaction that occurs in cells to release energy
Alveoli	Tiny air sacs in the lungs where gas exchange occurs
Aerobic	Aerobic respiration occurs when there is plenty of oxygen
Anaerobic	Anaerobic respiration occurs when there is not enough oxygen

glucose + oxygen → carbon dioxide + water

glucose → ethanol + carbon dioxide + energy

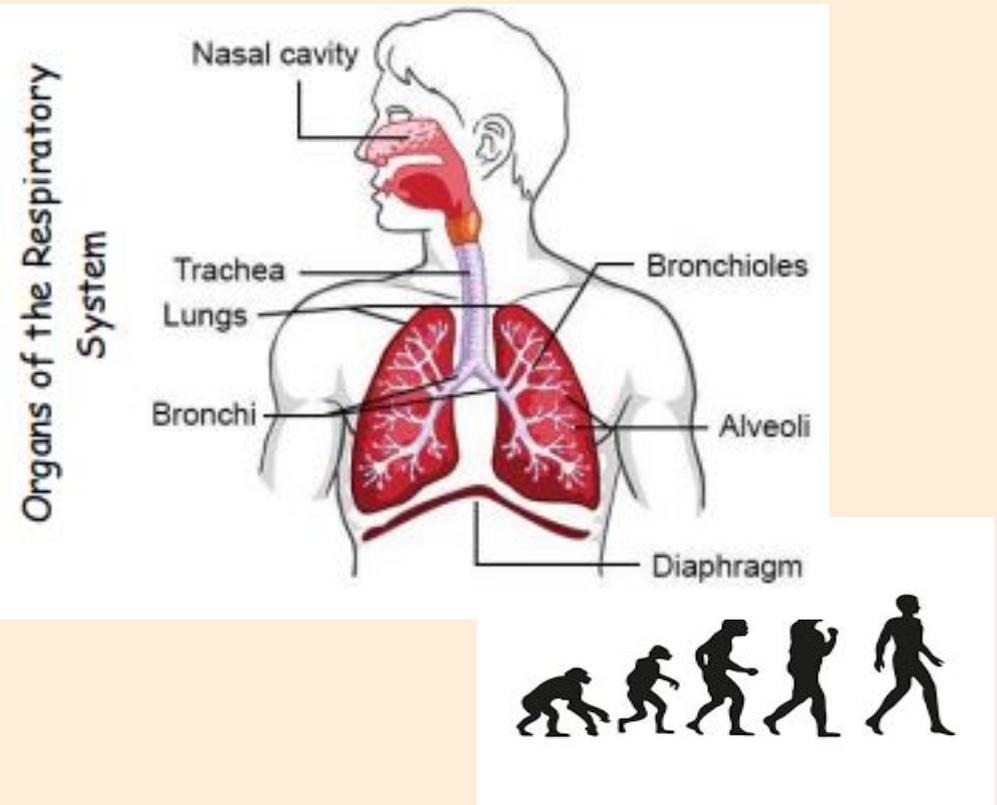
Facts

Fossils provide evidence of how living things were different million of years ago

Charles Darwin introduced the theory of natural selection in his book 'On the Origin of Species'

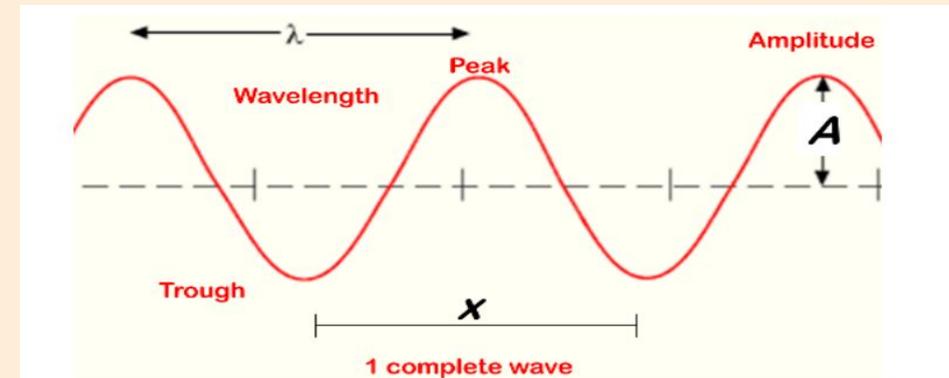
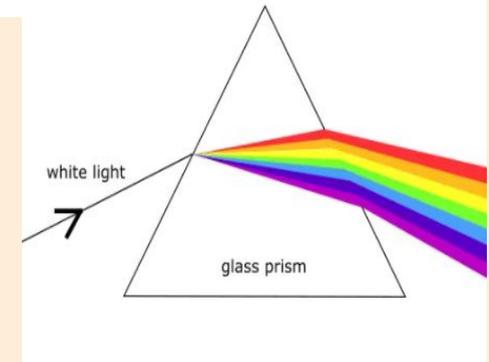
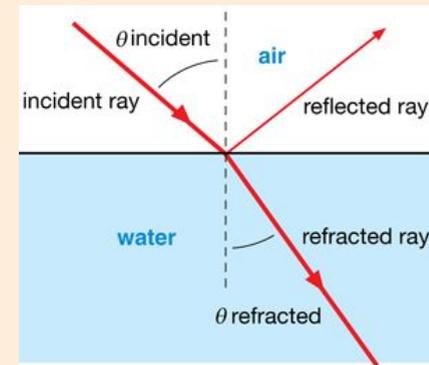
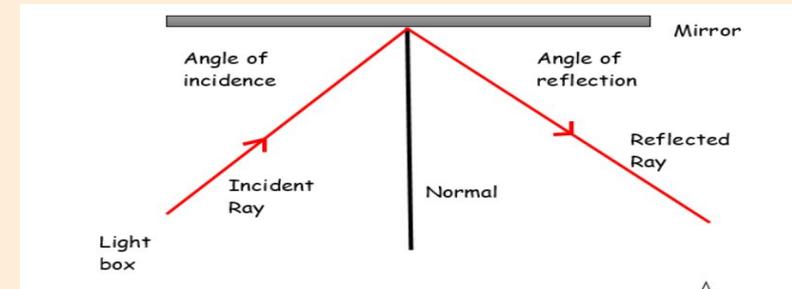
Natural Selection ('survival of the fittest') is the process by which living things which are better adapted to their environment survive, whereas those that are not well suited become extinct.

Living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents.





Key Definitions	
Luminous	An object that gives off light
Non-luminous	An object that does not give off light
Light intensity	A measure of the amount of light given off
Reflection	When light bounces off a surface
Refraction	Light waves change speed when they pass across the boundary between two mediums with different densities.
Angle of Incidence	The angle between the normal and the incident ray
Angle of reflection	The angle between the normal and the reflected ray
Normal	Drawn at 90° to the surface the light ray is hitting
Retina	The part of the eye which detects light
Wave	Waves transfer energy from one place to another with no transfer of mass
Wavelength	The distance between two identical parts of a wave
Wave Speed	How far one part of a wave can travel in a second
Frequency	The number of waves per second
Amplitude	The height of a wave for the mid-line to the top of a crest or bottom of a trough
Oscilloscope	Used to represent a wave



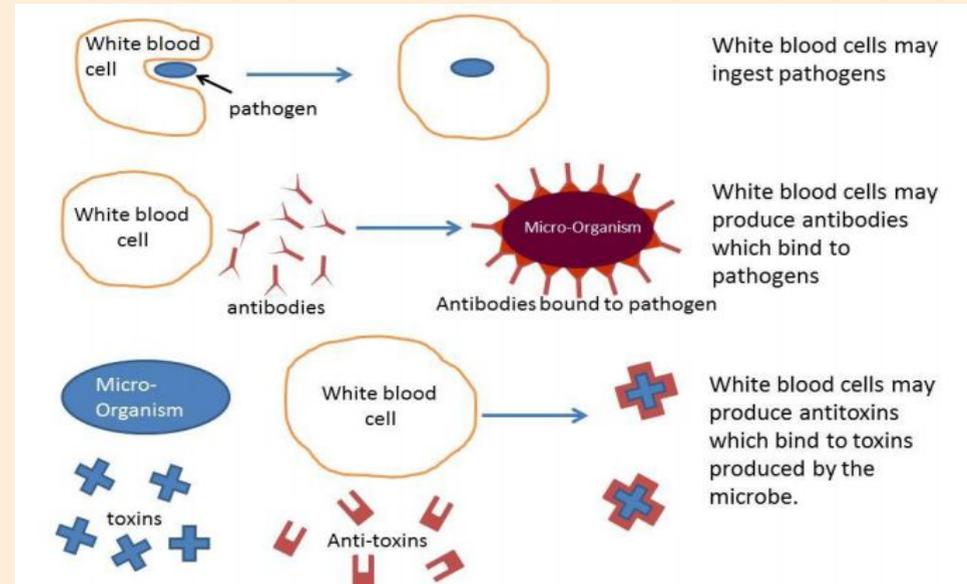
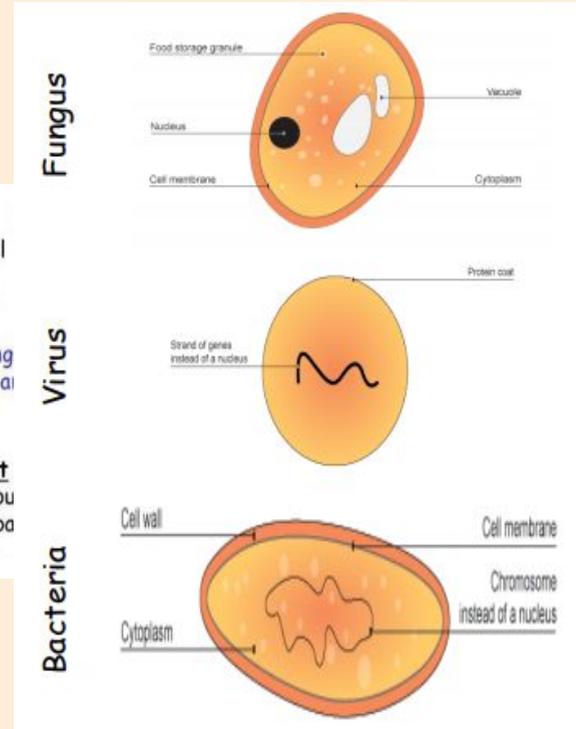
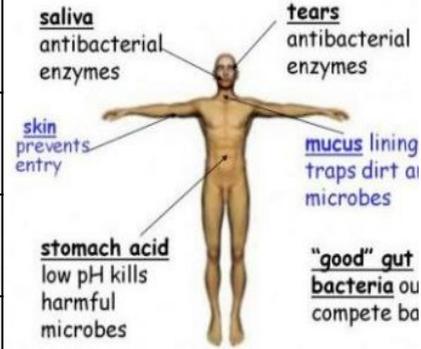
$$V = f \times \lambda$$

$$\text{WAVE SPEED (m/s)} = \text{FREQUENCY (Hz)} \times \text{WAVELENGTH (m)}$$



Microbes

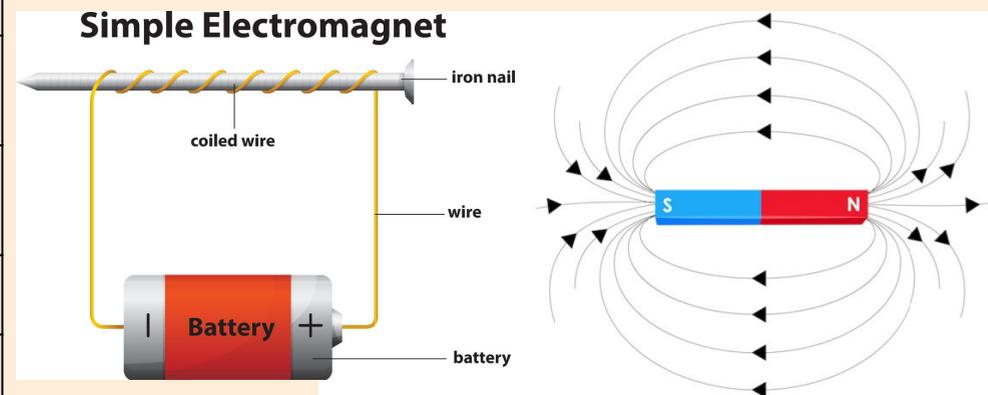
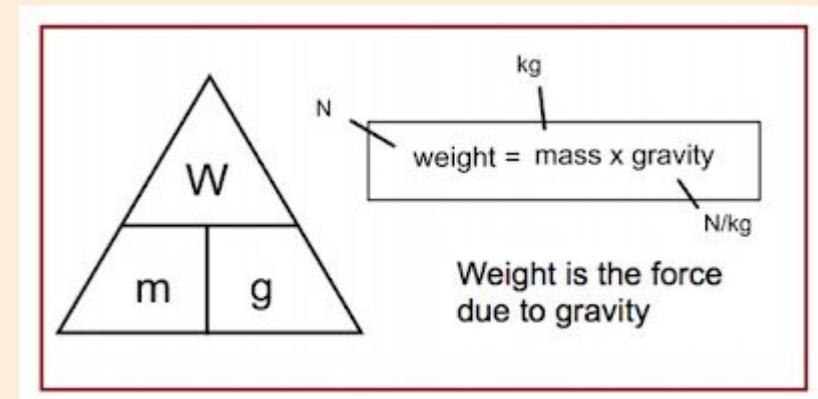
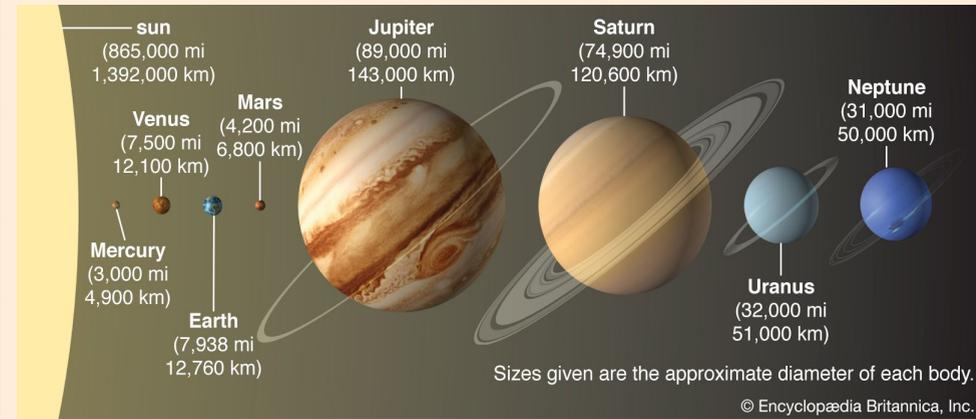
Key Definitions	
Pathogen	A microorganism which causes disease
Microbe	A microscopic organism
Bacteria	Bacteria are among the smallest living things, they are single cell organisms which can be friendly or harmful
Virus	A pathogen which can cause diseases such as cold, flu and chickenpox
Fungi	A pathogen which can cause diseases such as athlete's foot and thrush
Immune	The ability of the body to defend against a specific type of pathogen
Vaccination	An injection containing a dead or weakened pathogen to trigger the immune system
White blood cells	Cells which protect your body against pathogens
Antibodies	Proteins produced by the white blood cells which are specifically made to defend against a specific type of pathogen
Antitoxins	Produced by the white blood cells to counteract the effects of toxins produced by bacteria cells
Engulf	White blood cells can surround and destroy harmful pathogens
Physical Barriers	These are ways your body prevents pathogen from entering e.g. skin, stomach acid, enzymes in tears.
Antibiotics	Drugs which kill bacteria





Space and Gravity and Magnetism

Key Definitions	
Gravity	A forces which acts between masses
Mass	The amount of matter or 'stuff' something is made up of. Unit - Kg
Weight	The force of gravity acting on an object. Unit - N
Solar System	Consists of the sun surrounded by planets, comets and asteroids in orbit.
Satellite	An object that is in orbit around a planet
Orbit	The path an object takes around a central object
Season	Is a period during the year linked to the position of the parts of the Earth in relation to the sun.
Axis	The imaginary line down down the centre of an object that spins e.g. the earth's axis.
Magnetic field	The area around a magnet in which there is a magnetic force
Magnetic Pole	Area at each end of a magnet where the external magnetic field is strongest
Induced Magnetism	When a magnetic material is close to a magnet it becomes a magnet itself
Electromagnet	A magnet that turn on and off with electricity
Magnetic Materials	Magnetic materials include Iron, Cobalt, Nickel and any alloys containing those metals.



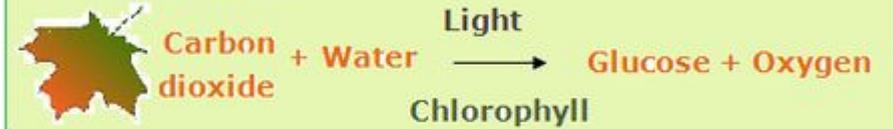


Photosynthesis

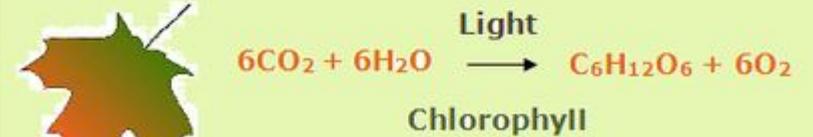
Key Definitions	
Photosynthesis	A chemical reaction that takes place inside a plant, producing glucose and oxygen.
Iodine	An indicator used to test for starch. Turns from orange to blue-black when starch is present
Palisade Cells	Plant cells where the majority of photosynthesis occurs
Chloroplast	Parts of plant cells, which contain chlorophyll, where photosynthesis occurs
Chlorophyll	A green pigment contained in the chloroplasts which absorbs sunlight for photosynthesis
Stomata	Tiny opening or pores in plant tissue that allow for gas exchange
Epidermis	The outer layer of tissue in a plant
Waxy Cuticle	Thin layer at the top of a leaf that reduces the rate of water loss from the leaf
Guard cells	Cells that surround the stomata, which swell in size and shrink to open and close the stomata
Limiting factors	These are conditions which affect the rate of photosynthesis e.g temperature, carbon dioxide concentration, light intensity.
Starch	A store of glucose created by photosynthesis
Xylem	The plant organ which transports water from the roots to the leaves
Phloem	The plant organ which transports glucose

Photosynthesis

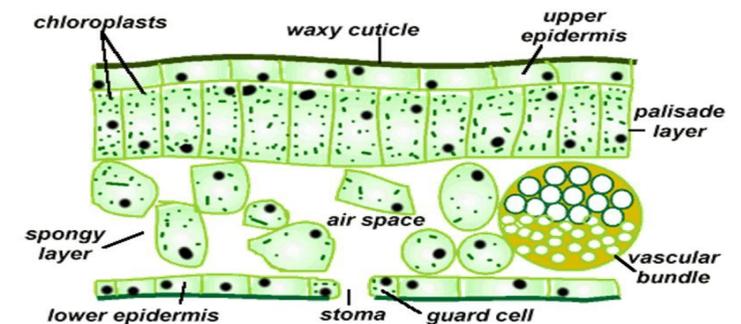
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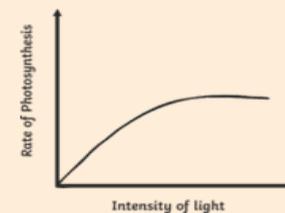
Symbol equation



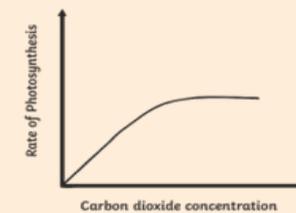
Leaf Structure



Light



Carbon Dioxide



Temperature

