

Year 9

Knowledge Organiser

April- July 2023

AMBITION, CONFIDENCE, CREATIVITY,
RESPECT, DETERMINATION

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Why do we have knowledge organisers?

Knowledge organisers are a collation of the basic essential knowledge for success in each subject area that will underpin your learning for the term.

They are designed to provide the information you will need to be committing to your long term memory through recall exercises in Low Stakes Quizzing.

How do we use knowledge organisers?

You should be using these KOs to create your homework quizzes so that you are practising retrieving information.

1. You can do this by testing yourself on the definition of key terms (both recalling the key term and then swapping to recall the definition), practice labelling diagrams, retrieves reasons and justifications for the main learning points.
2. They can also be used for 'memory dumps' where you try to recall as much of the information about a topic as possible and then use the KP to fill in the gaps.
3. They can also be used in class to assist with retrieval of the core knowledge needed for each subject.

You should have these with you at all times in school and out on your desk in all lessons.

If you lose your KO or it becomes too dishevelled, please purchase a new one from the Head of Year or the School Office.

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Year 9 Term 3 Rhetoric and Revolution Knowledge Organiser

Key speeches.

Race and Nation

William Wilberforce: a key abolitionist who was instrumental in the abolition of slavery. An MP in England, he successfully lobbied parliament and the laws surrounding the legality of slavery were overturned in 1833.

Frederick Douglass: a USA abolitionist who fled for slavery in the Southern States of America and campaigned in the North for the abolition of slavery.

Winston Churchill: Conservative Prime Minister for the UK for the duration of World War 2

Elizabeth 1: Tudor monarch who successfully ensured the defence of England and the realm for the Spanish Armada in 1588

Gender rights

Emmeline Pankhurst: Suffragette who campaigned for the right for votes for women in 1918

Emma Watson: 21st century actress who advocates for gender equality in society.

Martin Luther King: Black American Baptist minister and prominent member of the civil rights movement which took place in America in the 1960s.

Malcolm X: Black Civil rights movement leader who advocated for black rights by 'any means necessary.' His pursuit of black empowerment was at odds with non-violent teaching of Martin Luther King.

Environment

Greta Thunberg: 21st century environmentalist whose one girl protest when viral on the internet in 2018 and inspired a new generation to fight for green issues.

David Attenborough: 20th and 21st century broadcaster who is widely respected due to his numerous TV series which document the effect of mankind on the planet and hugely influential in environmental matters.

Key vocabulary:

Race and nation

- **Abolition:** the ending of something (The abolition of slavery is what Wilberforce and Douglass campaigned for.)
- **Colonialism:** the act of acquiring full or partial political control over a country and exploiting it economically. This includes the natural resources of a country and may also include the exploitation or citizens of that country.
- **Slavery:** the forced labour of someone without consent and proper payment.
- **Exploitation:** the act of taking advantage of someone unfairly.
- **Pacifist:** someone who seeks change through peaceful means.

Gender

- **Equality:** ensuring that all individuals are treated equally and without discrimination due to gender.
- **Equal Opportunities Act** protected characteristics: the things which are illegal to discriminate against. It is illegal to discriminate against somebody based on age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, gender and sexual orientation.

Environment

- **Activist:** a person who campaigns to bring about political or social change.
- **Environmentalism:** somebody who promotes the importance of 'green issues' over capitalism and seeks to change policies and public thinking.
- **Global Warming:** a gradual increase in the temperature of the earth's atmosphere, generally attributed to the greenhouse effect.
- **The Green House Effect:** global warming caused by increased levels of carbon dioxide, CFCs and other pollutants.
- **Environmental issues:** those issues which affect the environment and are a result of man's actions rather than the act of natural disaster. These include pollution, overpopulation, waste disposal, climate change (see global warming.)

Year 9 English KO Rhetoric and Revolution Speech Writing

Persuasive techniques/ rhetorical devices:

- Repetition
- Tripling
- Anaphora
- Epistophe
- Provocative statements
- Emphatic/ exclamatory statements
- Personal pronouns
- Collective pronouns
- Direct address
- Call to action
- Hyperbole (exaggeration)
- Emotive language
- Rhetorical questions
- Statistics
- Facts
- Anecdotal evidence
- Expert opinion
- Ethos
- Pathos
- Logos

Non-fiction extended writing success checklist (Language Paper 2

Q5)

- Varied ambitious vocabulary
- Range of paragraph lengths for effect
- Appropriate genre conventions
- Suitable purpose, audience and form.
- Developed and focused points
- Use of language and structural techniques
- Accurate SPAG
- Control range of punctuation

Useful discourse markers (to link clauses, sentences and paragraphs).

- Meanwhile
- Above all
- Significantly
- Equally
- For instance
- Consequently
- Thus
- Alternatively
- Moreover
- Likewise
- Similarly
- Therefore
- Such as
- Ultimately
- In addition
- In contrast
- Conversely,
- Contrary to,
- Despite this,
- Nonetheless,
- However,
- This proves that
- Clearly
- Correspondingly

Sentence Starters for non-fiction writing

- Experts have claimed...
- After some consideration...
- The evidence overwhelmingly suggests that...
- Another essential point...
- Whilst this is the case...
- The traditional interpretation is...
- Most importantly...
- There is limited evidence for...
- These factors contribute to...
- Studies have shown...
- It has become increasingly clear that...
- Common sense dictates that...
- Indeed, the best solution would be...

Non fiction Genre Conventions

Speech:

Directly addresses the audience with use of **personal pronouns** . It may start 'ladies and gentlemen' or similar. Aim for contrast – move from light-hearted to serious, problem to solution, question to answer.

Magazine Article:

Needs a **headline** and may use **sub-headings**. Likely to be 'lively', so make sure language choices are entertaining and descriptive. Think carefully about the intended audience. May include direct speech/quotes from interviews.

Report:

Needs a **header** to explain what the report is about and who it is written for. Must make use of **sub-headings**. First will be the rationale – why the report has been written. **Next is the current situation/issues and then finally the recommendations**; use a **formal tone**.

Review:

Make use of the **language of evaluation** in review writing. You need to explain what you thought of the very aspects of the 'thing' you are reviewing and *make recommendations* on who would be most likely to enjoy the use of the product. Reviewers are often **witty and descriptive with use of hyperbole**.

Blog:

Blogs tend to be **quite formal but it depends on the audience**. The blogger gives their views/ideas on a topic of their choice. They will often support their ideas with **references to other 'experts'**, to give more authority to what they write.

Key vocabulary

Colloquial

Language used in ordinary and familiar conversations; informal expression, dialogue and tone.

Concise

Giving a lot of information clearly and in a few words (to the point).

Courteous

Polite and respectful (well-mannered).

Provision

Providing or supplying something. (to give)

Reiterate

To say something a number of times; to repeat, emphasise.

Elaborate

To develop or present something in further detail.

Proposal

A plan, suggestion or recommendation.

Inadequate

Not good enough; substandard, insufficient.

Negligible

Small and unimportant.

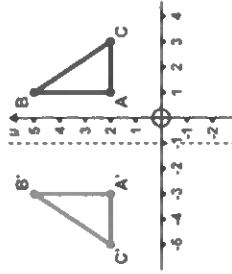
Recipient - Someone who receives something (from the sender).

Likely audiences: Headteacher, editor of a paper, peers, other teenagers, Prime Minister, Local authority/ council and parents.

Purpose - why

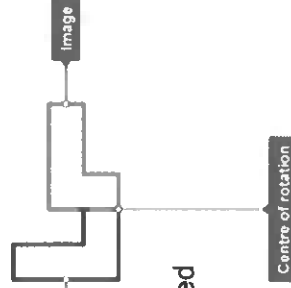
Audience - who

Form - what (type of writing)



Reflection

The line of reflection is called the mirror line.



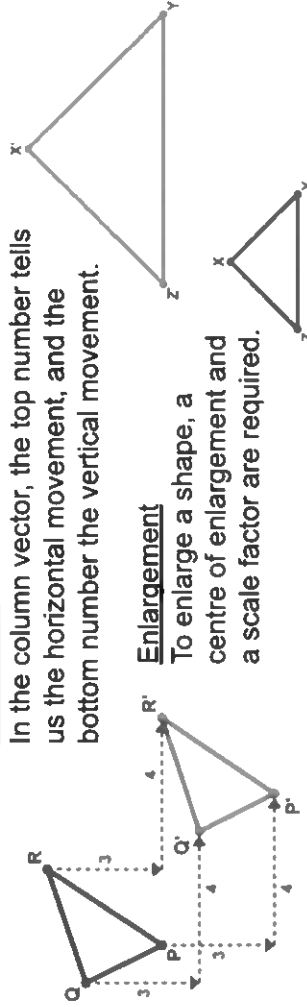
Rotation

Three pieces of information are needed to rotate a shape:

The centre of rotation, the angle of rotation, and the direction of rotation.

Translation

In the column vector, the top number tells us the horizontal movement, and the bottom number the vertical movement.



Enlargement

To enlarge a shape, a centre of enlargement and a scale factor are required.

Averages From a Grouped Frequency Table [M287]

The modal group is the group with the highest frequency.

To find the median, add up the frequency column to find how many items there were in total. Divide by 2, and count up through the frequencies to find the group that number falls in.

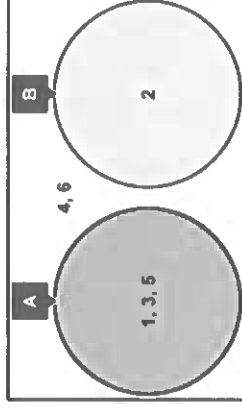
To find the mean:

1. Create a midpoint column. To find the midpoint add up the two ends of each group and divide by 2.
2. Multiply each frequency with the midpoint for that group.
3. Total all your answers from step 2.
4. Total the frequency column.
5. Divide step 3 by step 4.

Product Rule

To find the total number of outcomes for two or more events, multiply the number of outcomes for each event together

Mutually Exclusive Events



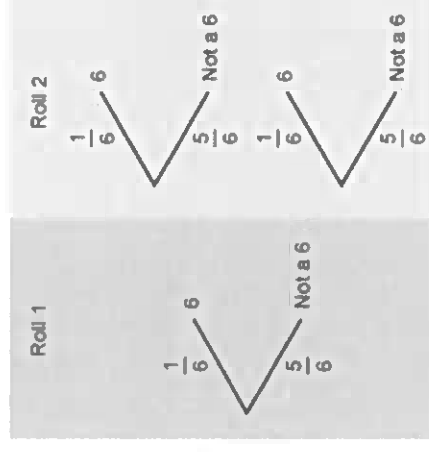
The circles in the Venn diagram do not overlap.

$$P(A \text{ or } B) = P(A) + P(B)$$

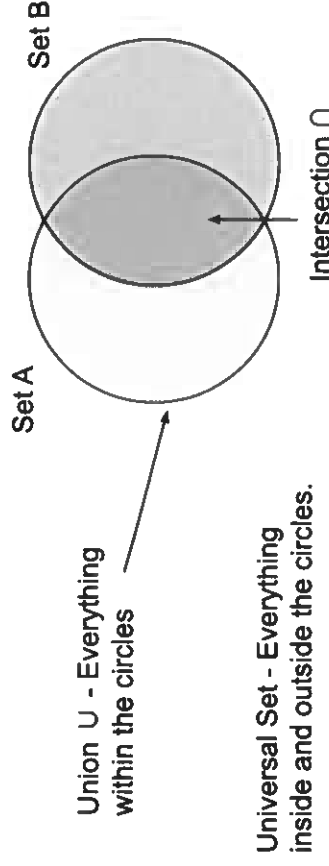
Two events are independent if the probability of the first event happening has no impact on the probability of the second event happening.

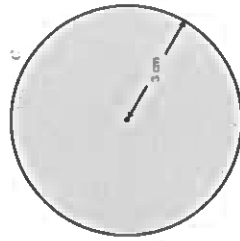
Probability Tree Diagrams

- Branches labelled with outcomes at the end of each branch.
- Branches labelled with probability along each line.
- When following the branches, multiply to find the probability.



Venn Diagrams





Circle

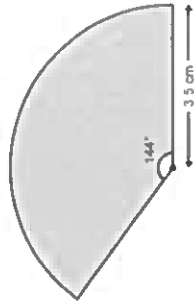
$$\text{Area} = \pi r^2$$

$$\text{Circumference} = \pi d$$

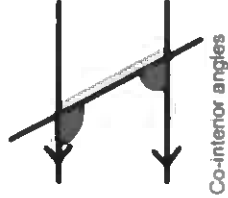
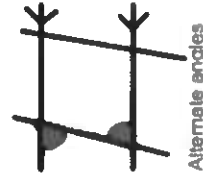
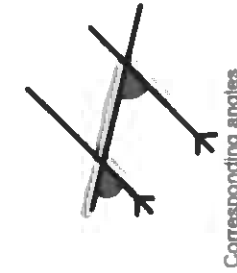
Sectors

$$\text{Arc length} = \frac{\text{angle}}{360^\circ} \times \pi \times d$$

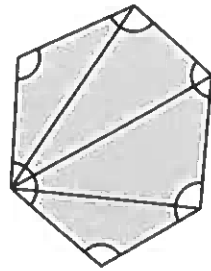
$$\text{Sector area} = \frac{\text{angle}}{360} \times \pi \times r^2$$



Angles in Polygons [M606, M653]

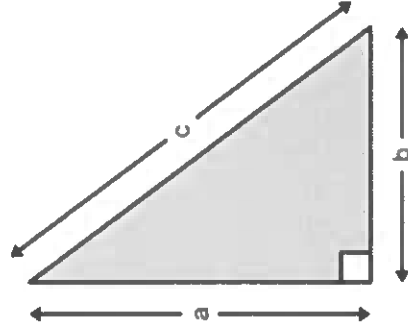


Corresponding Angles are equal.
Co-interior Angles sum to 180°



$$\text{Sum of Interior Angles in a Polygon} = (n - 2) \times 180^\circ$$

$$\text{Sum of Exterior Angles in a Polygon} = 360^\circ$$



Pythagoras' Theorem

In a right-angled triangle, $a^2 + b^2 = c^2$

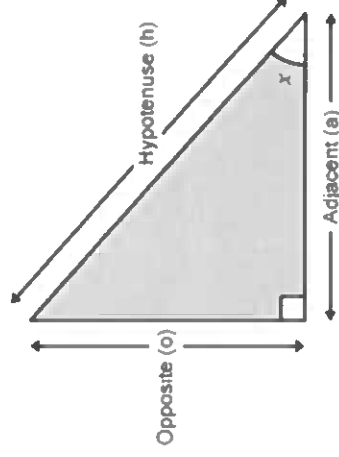
Where c is the hypotenuse. The hypotenuse is the longest side of the triangle and is always opposite the right-angle.

Trigonometry

The hypotenuse (h) is the longest side. It is opposite the right angle.

The opposite side (o) is opposite the angle in question (x).

The adjacent side (a) is next to the angle in question (x).



S	OH	C	AH	T	OA
	↓		↓		↓
Sine(θ) =	$\frac{\text{opp}}{\text{hyp}}$		$\frac{\text{adj}}{\text{hyp}}$		$\frac{\text{opp}}{\text{adj}}$
			Cosine(θ) =		Tangent(θ) =

Year 9 Physics Knowledge Organiser – Energy 2

Box 1 - Energy Resources

Energy resources are used for generating electricity, heating and transport. Demand for energy is increasing.

Renewable energy resources are ones that are being (or can be) replenished (replaced) as they are used.

Non-renewable energy resources are being used at a faster rate than they can be replenished.

The resources we use need to change over time. There needs to be less reliance on fossil fuels and we need to use more renewable resources. Factors such as reliability and cost mean this is not always easy.

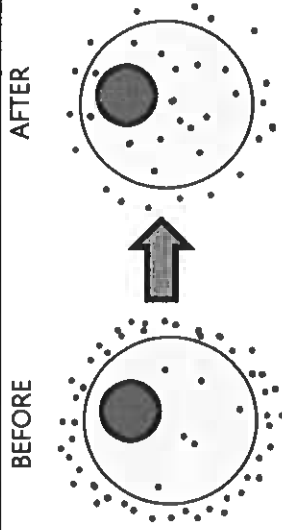
Energy resource	How it works to generate electricity	Uses	Positive	Negative
Fossil Fuels (coal, oil and natural gas)	Burnt to release thermal energy used to turn water into steam to turn turbines	Generate electricity, heating and transport	Cheap to extract and reliable	Non-renewable. Burning fossil fuels releases carbon dioxide which contributes to global warming. Burning coal and oil releases sulfur dioxide, which contributes to acid rain.
Nuclear	Nuclear fission process releases thermal energy, then as above (water>steam>turbine>electricity)	Generate electricity	No greenhouse gases produced. Lots of energy transferred from small amounts of fuel. Reliable	Non-renewable. Dangers of radioactive materials being released. Start up costs, running costs and decommission costs very expensive. Toxic waste difficult to dispose of.
Biofuel	Plant matter burnt to release thermal energy, then as above (water>steam>turbine>electricity)	Transport and generate electricity	Renewable. They are 'carbon neutral'.	Large areas of land needed to grow fuel crops. Habitats destroyed and food not grown.
Tides	Every day tides rise and fall, so water turns turbine as it moves through a barrage.	Generate electricity	Renewable. Predictable due to consistency of tides. No greenhouse gases produced.	Expensive to set up. A dam like structure is built across an estuary, altering habitats.
Waves	Up and down motion turns turbines	Generate electricity	Renewable. No waste products.	Can be unreliable and not currently large scale
Hydroelectric	Falling water spins a turbine	Generate electricity	Renewable. No waste products. Reliable	Habitats destroyed when dam is built.
Wind	Movement causes turbine to spin which turns a generator	Generate electricity	Renewable. No waste products.	Unreliable – wind speed varies. Visual and noise pollution.
Solar	Sunlight absorbed by photovoltaic cells creates electricity or directly heats liquid in solar panels	Generate electricity and sometimes heating	Renewable. No waste products.	Making and installing solar panels expensive. Unreliable in the UK
Geothermal	Hot rocks under the ground heats water to produce steam to turn turbine	Generate electricity and heating	Renewable. Clean. No greenhouse gases produced.	Limited to a small number of countries. Geothermal power stations can cause earthquake tremors.

Year 9 Biology Knowledge Organiser Cell Biology 2 - Exchange and Transport

Box 1 – Exchange and Transport

All organisms **exchange** substances with their environment to stay alive. This means they must **transport useful substances into cells and waste substances out of cells**.

Substances can be transported into or out of cells by: **diffusion, osmosis or active transport**.



Box 2 – Diffusion

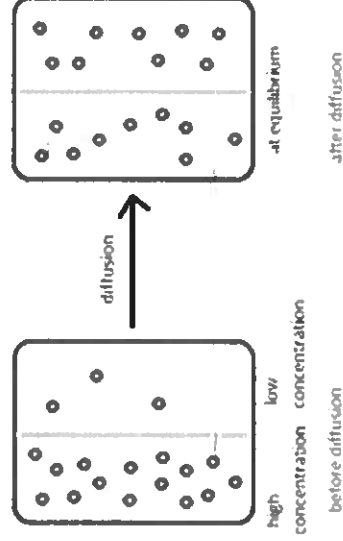
Diffusion is the spreading out of particles from an area of higher concentration to an area of lower concentration.

The random motion of particles in liquids and gases means that particles will spread out until the concentration is equal throughout. Overall, the **net movement** of the substance will be from higher to lower concentration.

The **rate** of diffusion is affected by:

- the **concentration gradient** (the difference in concentration between two places) – the bigger the difference in concentration, the faster diffusion is.
- the **temperature** (a higher temperature increases the rate of diffusion as particles have more energy in their kinetic stores)
- The **surface area** of the membrane (a larger surface area of cell membrane increases the rate of diffusion into/out of a cell).

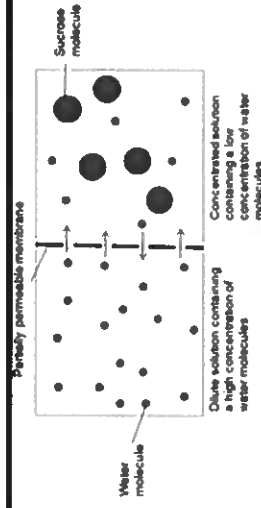
Diffusion is the process the transports oxygen into the bloodstream and into cells, and transports carbon dioxide out (in the lungs, or gills of fish). It is also how the waste product **urea** moves from cells into the bloodstream, before removal in urine.



Box 3 – Osmosis

Osmosis is the **movement of water from a more dilute solution to a more concentrated solution across a partially permeable membrane**.

Osmosis stops once the solution concentration is equal either side of the partially permeable membrane.



Key Terms

Definitions

diffusion	The spreading out of particles from an area of higher concentration to an area of lower concentration.
concentration gradient	The difference in concentration of a substance between two places. A 'steeper' concentration gradient means there is a bigger difference in concentration and diffusion happens faster.
osmosis	Osmosis only describes the movement of water. It is the movement of water molecules from a dilute solution to a more concentrated solution across a partially permeable membrane.
partially permeable membrane	A membrane that only allows some substances through – others are prevented from travelling through. (e.g. a cell membrane). Small molecules pass through easily.
active transport	The movement of substances against the concentration gradient – from lower to higher concentration. This requires energy from respiration.

Box 4 – Active transport

Active transport is the

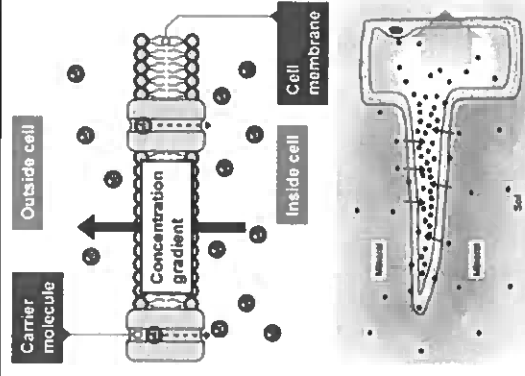
movement of substances from a **lower concentration to a higher concentration and requires energy from respiration**.

Active transport happens in:

- Root hair cells** to allow the cells to absorb mineral ions (like magnesium ions and nitrate ions) from the very dilute solution in the soil. They need ions like these for healthy growth.

- The **cells in the small intestine** to allow them to absorb all of the sugar (e.g. glucose) that is in the intestine. The sugar is needed by all cells in the body for respiration.

Cells that are carrying out active transport have a lot of mitochondria.



Year 9 Biology Knowledge Organiser Cell Biology 2 - Exchange and Transport

Box 5 – Adaptations for efficient exchange and transport

Unicellular organisms have a very large surface area to volume ratio (SA:V ratio) compared to multicellular organisms. They are small enough that diffusion straight into their cells is enough to meet their needs.

As multicellular organisms increase in size, their SA:V ratio decreases. They need organs with specialised exchange surfaces with a high SA:V ratio.

Without exchange surfaces (eg lungs, gills, leaves), multicellular organisms wouldn't be able to obtain enough of the substances they need to survive, or be able to get rid of waste products efficiently.

Box 6 – Specialised exchange surfaces

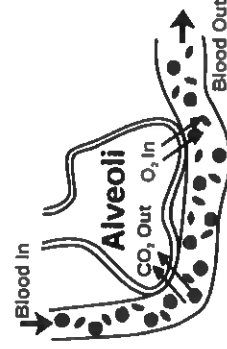
The following features make exchange surfaces effective:

- A **large surface area: volume** – to give a larger space for exchange
- Be **thin** (often just one cell thick) – for a short diffusion pathway
- Have an **excellent blood supply** (animals) – to maintain the concentration gradient
- Be **ventilated** (animals with lungs) – ventilation (breathing in and out) increases effectiveness by maintaining the concentration gradient with each breath.

Box 7a – Exchange surfaces and their adaptations in animals and plants

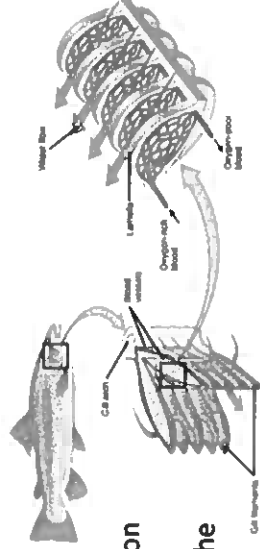
Alveoli (air sacs) in the lungs

- There are **millions of tiny alveoli**, giving a large surface area
- They are **one cell thick**, giving a short diffusion pathway
- They have an **excellent blood supply**, maintaining concentration gradient.
- They are **ventilated**, maintaining concentration gradient



Fish gills

- The **branching gill filaments**, giving a large surface area
- They are **one cell thick**, giving a short diffusion pathway
- They have **good blood supply**, maintaining the concentration gradient



Key Terms

Definitions

surface area to volume (SA:V) ratio

Indicates how effective a surface is at exchange. A higher SA:V ratio is better. Generally, the smaller an organism is, the larger the surface area to volume ratio.

small intestine

The organ in the digestive system where products of digestion are absorbed into the bloodstream.

lungs

The organ where gas exchange takes place. Oxygen is absorbed from the air and carbon dioxide is transferred into the air. The air sacs where gases are actually exchanged are called **alveoli**.

gills

The organ in fish where gas exchange takes place. Oxygen is absorbed from the water into the blood, and carbon dioxide is transferred to the water.

leaves

The plant organ responsible for gas exchange. Carbon dioxide is absorbed from the air and oxygen and water is released into the air.

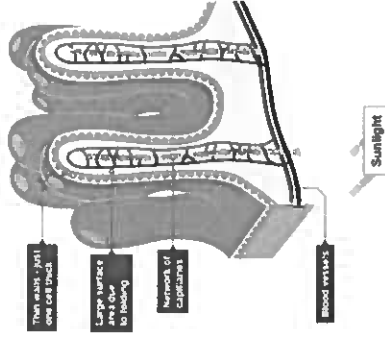
ventilation

Technical term for breathing in and out.

Box 7b – Exchange surfaces and their adaptations in animals and plants

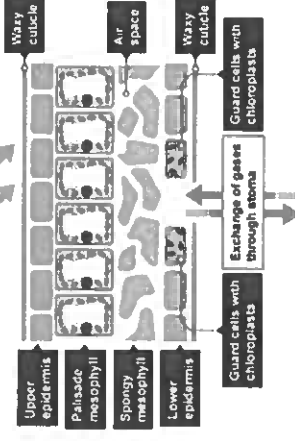
Small intestine

- The small intestine has **millions of villi**, giving a large surface area
- The surface of the villi is **one cell thick**, giving a short the diffusion pathway
- Every villus has a **good blood supply**, maintaining the concentration gradient.
- The outer cells of the villi are **packed with mitochondria** to provide the energy needed for active transport



Leaves

- **Flat and broad**, giving a large surface area
- **Air spaces** inside the leaf, giving a large surface area
- **Thin and flat**, shortens the diffusion pathway.



Year 9 Biology Knowledge Organiser – Organisation 1

Box 1 - Cells, tissues, organs and organ systems

Cells are the smallest units of life; all living things are made from cells. Cells are the basic building blocks of all living organisms.

Tissues are groups of similar cells working together to perform a particular function. The cells in tissues are usually specialised cells.

Organs are structures made of different types of tissue. The tissues within the organ work together to allow the organ to perform specific functions.

Organ systems are made of several organs that work together.

Multicellular organisms are living things that contain multiple organ systems working together to perform the functions of life.

Box 2 - The Digestive System

The digestive system is an **organ system**.

The food that is eaten passes through the digestive system and is gradually **digested** (broken down) and **absorbed** into the bloodstream. Each organ performs a different function on the food that passes through it.

The order food passes through the organs of the digestive system is:

Mouth – food enters the body and digestion starts. Chewing food increases the surface area of food so digestive enzymes break down food more quickly, and the digestive enzyme amylase in saliva breaks down the starch in food.

Oesophagus – carries food from the mouth to the stomach.

Stomach – contains hydrochloric acid and the digestive enzyme protease, the muscular walls of the stomach churn food to mix it with the acid and protease. The acid kills any bacteria present and the protease breaks down protein.

Small intestine – the main place food is broken down by digestive enzymes and absorbed into the bloodstream.

Large intestine – where water is absorbed from food.

Rectum/Anus – the remains of food is stored before being removed from the body as faeces.

Other organs that food does not pass through but are involved include:

Liver and Gall bladder – the liver makes bile and the gall bladder stores the bile until it is needed.

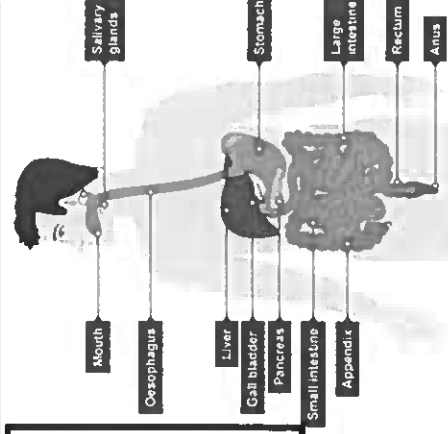
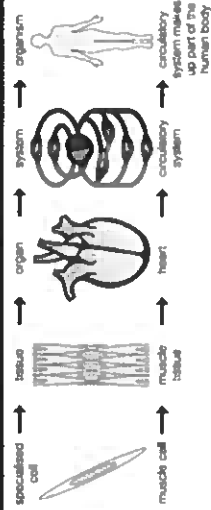
Pancreas – makes digestive enzymes that are used to break down food. The pancreas makes amylase, protease and lipase that break down food molecules in the small intestine.

Box 3 - Digestion

The food we eat is mainly made of **starch** (a type of carbohydrate), **protein** and **fat**. These molecules are **too large to be absorbed**.

The digestive system (shown right) is where these large molecules are **broken down into smaller molecules** that can be **absorbed**.

Once absorbed, the smaller molecules are transported around the body in blood, to the cells that need them. The products of digestion are used by cells to make new molecules we need, and the **glucose** is broken down during respiration and releases energy.



Key Terms	Definitions
Digestion	Digestion is the process that takes place in the Digestive System. During digestion, large food molecules are broken down into smaller, soluble molecules. These smaller molecules can be absorbed.
Carbohydrate	Carbohydrates are a type of molecule used by all living things to release energy . There are two main types of carbohydrate: starch and glucose .
Starch	Starch is a large carbohydrate molecule. It is the main substance in bread, rice, pasta and potatoes – all foods in the food group “carbohydrates”. Starch is made of many glucose molecules joined together. Starch is too large to be absorbed.
Glucose	Glucose is a small carbohydrate molecule; it is also known as a sugar. Sugars are molecules that are sweet and soluble. Glucose is small enough to be absorbed.
Protein	Protein is a large molecule found in meat, fish, dairy, and pulses and beans. It is used in the growth of cells and repair of tissues in the body. Protein is made of many amino acid molecules joined together. Proteins are too large to be absorbed.
Amino Acids	Amino acids are small molecules used to make proteins. The protein in food is made of amino acids; during digestion the protein is broken down to amino acids that are then absorbed, so our cells can then make use of them to make proteins of their own.
Fat	Fats are a type of molecule used by living things to store energy . Fats are found in meat, fish, dairy and oils (like vegetable oils). Fat molecules are too large to absorb without being broken down first. One fat molecule is made of one glycerol joined to three fatty acids.
Fatty acid and glycerol	Fatty acids and glycerol are small molecules that join together to make fat molecules. The fatty acids and glycerol that we absorb can be made into fat molecules inside cells or broken down to release energy .
Soluble	Soluble substances can dissolve in a solvent (a liquid, often water). Blood is mostly made of water, so substances need to be soluble to dissolve in blood for transportation around the body.
Digestive Enzymes	Digestive enzymes are molecules that work in the digestive system and break down large food molecules into smaller molecules that can be absorbed into the bloodstream.
Bile	Bile is made in the liver and stored in the gall bladder until it is needed. It is released into the small intestine as food arrives from the stomach and helps digestion in two ways: 1. It neutralises the acid from the stomach and provides the correct conditions for digestive enzymes to work. 2. It emulsifies fats into smaller fat droplets, which increases the surface area of fat to make it easier for lipase to break fat down.

Year 9 Biology Knowledge Organiser – Organisation 1

Box 4 - Enzymes and digestion

Enzymes are **biological catalysts** made of **protein**. They increase the rate of reactions. All organisms make many different types of enzyme to control the chemical reactions that take place inside cells (Topic link to **Metabolism**).

Enzymes in the digestive system increase the rate that large food molecules are broken down into smaller, soluble food molecules that can be absorbed. There are three main digestive enzymes to know about, see the table below:

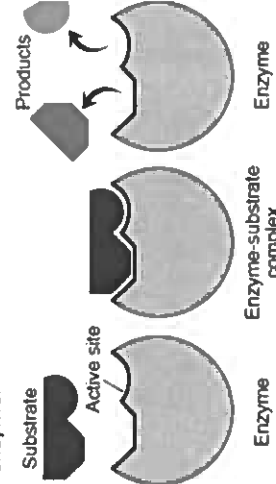
Digestive enzyme	Place of production	Place of action	Substrate	Product
Amylase (also called carbohydrase)	Salivary glands (in the mouth), pancreas, small intestine	Mouth, small intestine	Starch	Glucose
Protease	Stomach, pancreas, small intestine	Stomach, small intestine	Proteins	Amino acids
Lipase	Pancreas, small intestine	Small intestine	Lipids	Glycerol and fatty acids

Place of production means where the enzyme is made.

Place of action means where the enzyme breaking down food.

Box 5 - Lock and Key Theory

Enzymes are highly **specific**, because of the unique shape of the **active site** of each type of enzyme: only one type of substrate molecule will fit into the active site of each enzyme.



The diagram above shows the **lock and key theory** of enzyme action:

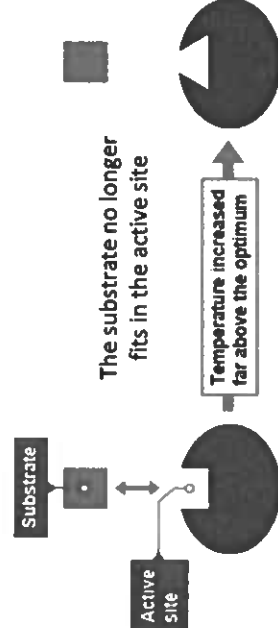
The enzyme and substrate come together and the substrate fits into the active site. The enzyme and substrate form the enzyme substrate complex and a reaction occurs. The products that have been made are released. The enzyme is unchanged by the process and can break down another substrate molecule.

Box 6 - Factors that affect enzymes

Enzymes are affected by the temperature and pH of their environment. Each enzyme has conditions that are needed for them to work best – these conditions are called their **optimum** conditions.

If the conditions of an enzyme are not optimum the enzyme will work more slowly. If the conditions are too different to the optimum conditions the enzyme will **denature** – which changes the shape of the active site.

When an enzyme has denatured it no longer works at all. See the diagram below:



Key Terms

Enzyme

Metabolism

Specific

Substrate

Product

Active site

Complementary

Optimum

Denature

Definitions

Enzymes are protein molecules that act as biological catalysts. **Catalysts** increase the rate of chemical reactions.

All the chemical reactions that take place in the body, some absorb energy (endothermic) and some release energy (exothermic).

When referring to enzymes and **substrates**, specific means that each enzyme only works with one substrate, and each substrate is only broken down by one enzyme.

The molecule an enzyme reacts with to make the **product**.

The molecule made when a substrate is broken down by an enzyme.

The part of an enzyme where the substrate fits. The active site has a specific shape that is complementary to the substrate.

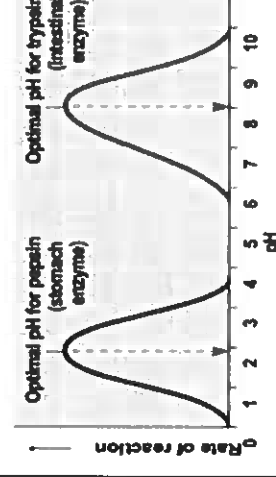
When two things fit together, like the pieces of a jigsaw puzzle.

The ideal or perfect condition for an enzyme. Enzymes are affected by temperature and pH.

This occurs when an enzyme is in conditions that are not optimal – the shape of the active site changes and will no longer fit the substrate.

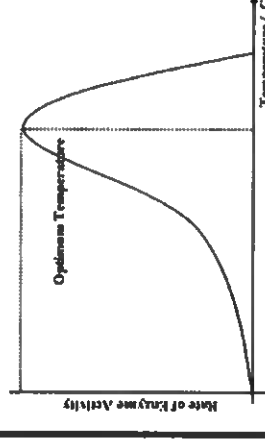
Box 7 The effect of pH

The enzyme from the stomach (acidic) works best in acidic conditions - pH 2 is the optimum. The one from the intestine (alkaline) works best in alkaline conditions - pH 8 is the optimum. The graph shows that the rate of activity decreases quickly when the conditions change from the optimum – the enzyme is **denatured**.



Box 8 The effect of temperature

The rate of reaction increases as the temperature increases until the optimum temperature is reached – here the enzyme works at the highest possible rate. If the temperature is too high (for most enzymes, above about 45°C), the enzyme **denatures**.



Year 9 Biology Knowledge Organiser – Organisation 1

Box 9 – Required practical: food tests

Aim: To use **qualitative** reagents to test for a range of carbohydrates, lipids and proteins. To include: Benedict's test for sugars, iodine test for starch, the emulsion test for lipids and the Biuret reagent for protein

A **qualitative** test indicates if a substance is present or absent in a sample - but it doesn't tell you how much is present (you cannot quantify it).

Observations are essential in this practical; you are looking for colour changes in particular which can indicate if a substance is present or absent:

Food Test	Colour of reagent	Positive test result	Negative test result
Iodine for starch	orange-brown	blue-black	orange-brown (no change)
Benedict's for sugar	light blue	green to brick-red	light blue (no change)
Ethanol for lipid	colourless	cloudy emulsion	colourless (no change)
Biuret for protein	blue	lilac-purple	blue (no change)

Important hazards

- Biuret solution contains copper (II) sulphate which is dangerous and iodine is an irritant - wear goggles
- Sodium hydroxide in biuret solution is corrosive, if any chemicals get onto your skin wash hands immediately
- Ethanol is highly flammable; keep it away from the Bunsen burner used in the Benedict's test (you should turn the Bunsen off completely)

Box 10 – Required practical: Enzymes and pH

Aim: To investigate the effect of pH on the rate of reaction of amylase
Amylase is an enzyme that digests **starch** (a polysaccharide of glucose) into **maltose** (a disaccharide of glucose)
Starch can be tested for easily using **iodine solution**. If starch is present then the iodine will turn **blue-black**.

To investigate the breakdown of **starch** by amylase at different pHs you need **iodine solution, starch solution, amylase solution (containing the enzyme)** and **pH buffer solutions** of a range of different pHs.

Buffer solutions produce a particular pH, and will maintain it if other substances are added.

In a series of test tubes the pH buffer and the amylase solution are mixed. After 1min the starch solution is added.

A sample is removed from the test tubes every 10 seconds to test for the presence of starch. **Iodine solution** will turn a blue-black colour when starch is present, so **when all the starch is broken down the iodine solution will remain orange-brown**.

Bo

1 IODINE ADDED TO SPOTTING TILE

2

1 cm³ pH 7 BUFFER SOLUTION

2 cm³ AMYLASE SOLUTION

STARCH SOLUTION

ADD AMYLASE + BUFFER TO A TEST TUBE, MIX THEN ADD STARCH SOLUTION, START STOPWATCH

pH 5 = 80 SECONDS

pH 9 = 90 SECONDS

pH 14 = NO REACTION

Important hazards

- Amylase solution may cause allergic reactions.
- Iodine solution is irritant. Avoid contact with skin and eyes. Wear safety goggles.

Physics Knowledge Organiser – Electricity I

Box 1 - Electric charge and current

Electric current is the flow of electrical charge.

Electric charge comes from the particles inside atoms: protons and electrons. The electrical charges that move through electrical circuits are normally electrons, but in some situations are ions.

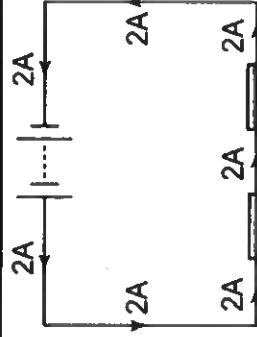
When electrical charges flow, work can be done (energy is transferred)

To make charges flow, a **closed**, or complete circuit is needed and a source of **potential difference: cells, batteries and mains**

Potential difference provides the force to make the **electric charges** in conductors **flow**.

The size of an electric current is the **rate** of flow of electric charge: current (I) = $\frac{Q}{t}$

In a circuit, in any **closed loop** of the circuit, the size of the **current** is the **same throughout** the loop (see diagram to the right).



Box 2 - Current, resistance and potential difference

A component is any part of a circuit (e.g. a resistor, a bulb a motor etc. – see box 4).

The **current** through a component depends on the **potential difference** across the component and the **resistance** of the component.

The greater the resistance the smaller the current for a given potential difference.

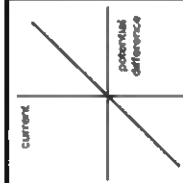
The smaller the resistance, the greater the current for a given potential difference.

When potential difference increases the current in the circuit also increases. The change in current depends on the type of component – see box 3.

Current, potential difference and resistance can be calculated using the equation below.

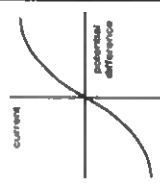
Potential difference = Current x Resistance

Box 3 Resistors - I-V graphs



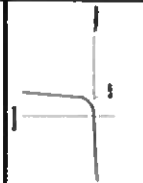
Ohmic conductor

At a constant temperature, current is **directly proportional** to the potential difference across the resistor. **Resistance is constant.**



Filament lamp

As the potential difference increases the current increases. As **current increases, the resistance increases**. The temperature increases as current flows.



Diode

Current flows in one direction only (forward.) Very high resistance in reverse.

Thermistor - Resistance of a thermistor decreases as temperature increases. Used in thermostats (e.g. ovens or central heating)

LDR - Resistance of a thermistor decreases as light intensity increases. Used to turn on night lights when it gets dark.

Key Terms

Charge (Q)

The particles that carry energy in a circuit. Also called charge flow. Charges can be positive or negative – in electrical circuits the charges are usually electrons. Measured in coulombs (C).

Current (I)

The rate of flow of charge. Measured in amps (A).

potential difference (V)

The potential difference is a measure of how much work is done per coulomb of charge. Measured in volts (V).

Resistance (R)

Resistance is the opposition to the flow of current. Measured in ohms (Ω).

Equation

$Q = I t$

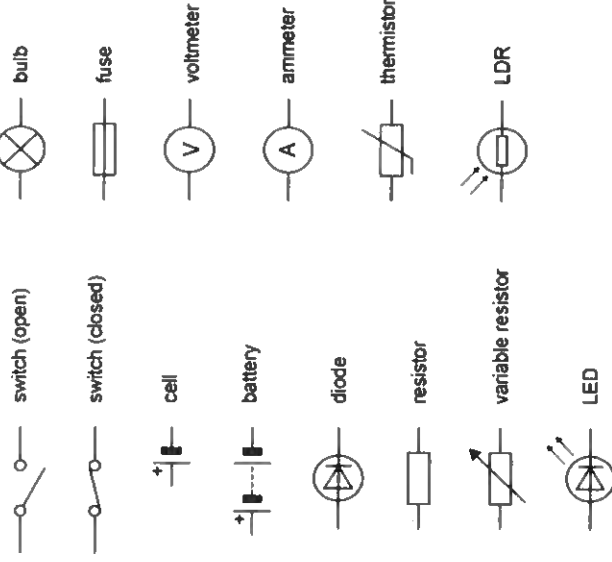
Charge flow = current x time
 $Q = \text{charge flow (coulombs, C)}$
 $I = \text{current (amps, A)}$
 $t = \text{time (seconds, s)}$

$V = I R$

Potential difference = Current x resistance
 $V = \text{potential difference (volts, V)}$
 $I = \text{current (amperes, A)}$
 $R = \text{resistance (ohms, } \Omega \text{)}$

Meanings of terms in equation

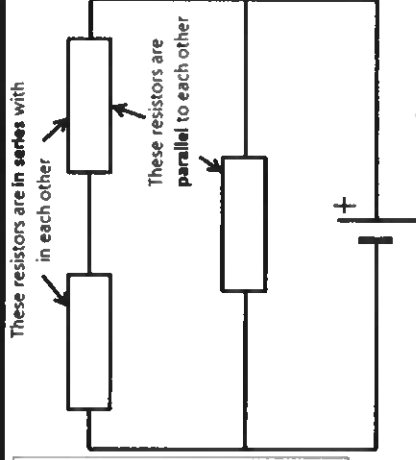
Box 4 – Circuit components and symbols



Physics Knowledge Organiser – Electricity I

Box 5 - Series and parallel circuits

There are two types of electrical circuit: series circuits and parallel circuits. In some circuits there are components connected in a series arrangement AND in a parallel arrangement. See the diagram to the right.

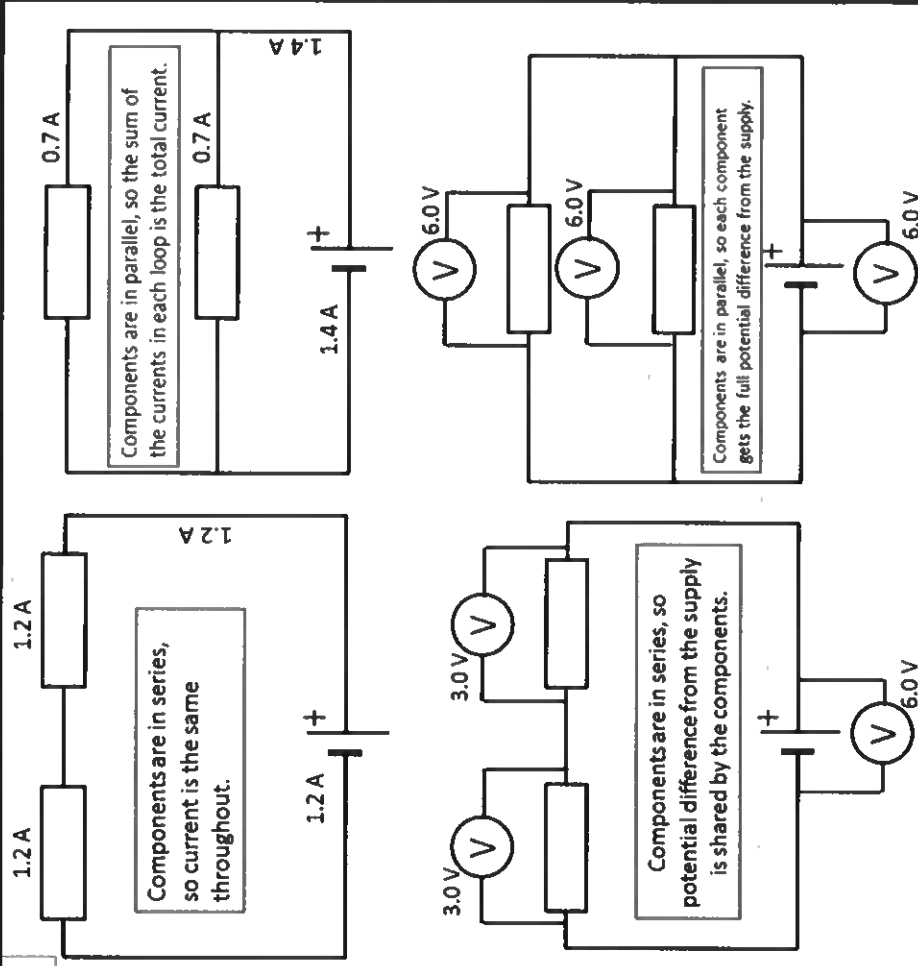


Box 6 – Current, potential difference and resistance in series and parallel circuits

Quantity	Components connected in series...	Components connected in parallel...
Current	The current through each component is the same .	Shared between the loops. The total current through the whole circuit is the sum of the currents through each loop of the circuit.
Potential difference	The potential difference provided by the power supply is shared between the components in series (not necessarily equally shared out – it depends on the resistance of each component).	The potential difference across loop is the same , and the same as the potential difference provided by the power supply.
Resistance	The total resistance of two components is the sum of the resistance of each component (see equation).	The total resistance of two components in parallel is always less than the resistance of the smallest individual resistor.

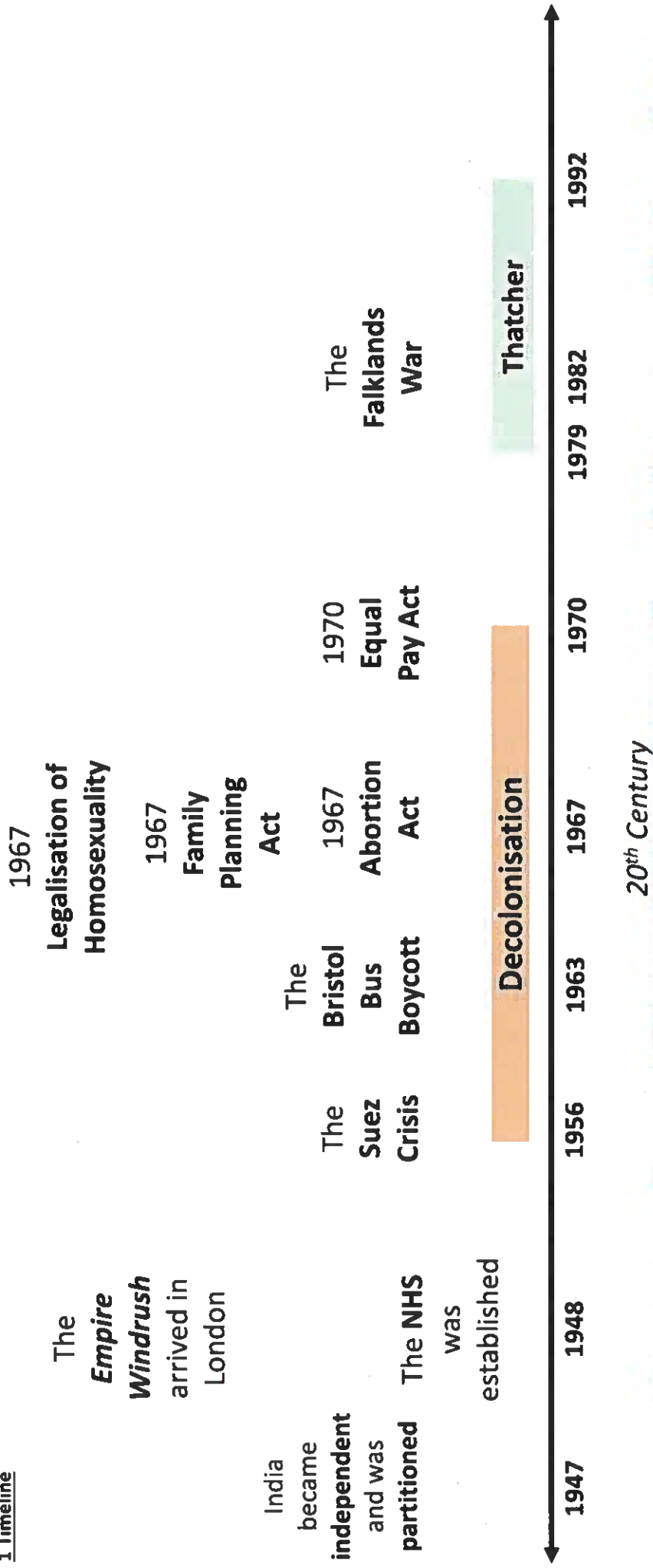
Key Terms	Definitions
series circuit	Components are connected one after another in a closed loop. There is only one route for the current to travel through.
parallel circuit	Components connected in different loops of a circuit. There are branches in the circuit with more than one way for the current to travel.
resistor	An electrical component that regulates current in a circuit.

Equation	Meanings of terms in equation
For series circuits: $R_{total} = R_1 + R_2$	R_{total} = total resistance (ohms, Ω) R_1 = resistance of first component (Ω) R_2 = resistance of next component (Ω) – and so on



History: Knowledge Organiser Year 9: How did Britain change in the postwar period?

1 Timeline



Modern Period

History: Knowledge Organiser 9: How did Britain change in the postwar period?

2. The Suez Crisis

In 1956, Britain's embarrassing attempts to keep hold of the Suez Canal in Egypt led to rapid decolonisation

1. The Suez Canal

- The **Suez Canal** in Egypt was vital to the British because it allowed easy access to India
- It also helped Britain protect oil supplies in the **Middle East**

2. Nasser

- The Egyptian president, **Nasser**, opposed the British Empire
- In 1956, Nasser took control of the **Suez Canal**

3. Invasion of Egypt

- The British prime minister, **Anthony Eden**, made a secret plan with **France** and **Israel**
- The three countries invaded **Egypt** and planned to remove **Nasser**

4. The World's Response

- The **USA** threatened to stop loans to **Britain** unless they left **Egypt**
- The **Soviet Union** threatened to launch **nuclear weapons**
- The British public protested against the war

- 5. **Consequences of Suez**
 - **Anthony Eden** was forced to resign
 - The crisis revealed that Britain could not stop colonies demanding **independence**
 - After **Suez**, most British colonies became **independent**, including
 - **Nigeria** (1960)
 - **Jamaica** (1962)
 - **Kenya** (1963)
 - This was called **decolonisation**

3. Social change in the 1960s

The 1960s witnessed a variety of law changes that made Britain a more liberal and equal society

Liberal means *accepting of different ideas and ways of living*

Gay Rights

- Same-sex relationships had been illegal in the UK since 1533
- In 1967, homosexual relationships were **legalised**
- However, same-sex couples only gained equal rights to marriage in 2014

Abortion Act

- Before the 1960s, **contraception** was unreliable and **abortions** were illegal and dangerous
- The **1967 Abortion Act** legalised **abortion** with permission from two doctors
- The **1967 Family Planning Act** made **contraception** widely available through the **NHS**

Equal Pay Act

- Women were usually paid less than men, even for the same work
- **Strikes** by female workers put pressure on the Minister for Employment, **Barbara Castle**
- She passed the **1970 Equal Pay Act**, making it illegal to pay women less for the same work
- However, a **gender pay gap** still exists today

History: Knowledge Organiser 9: How did Britain change in the postwar period?

4 The Bristol Bus Boycott

In the 1960s, Black British people protested for equal rights

Bristol's Caribbean Community

- By the 1960s, Bristol had a growing population of migrants from the **Caribbean**
- **Caribbean migrants** opened shops, cricket clubs, music venues, and churches
- In 1968, the first **St Paul's Carnival** was held to celebrate **Caribbean** culture and history

The Bristol Bus Boycott

- However, Black people in **Bristol** continued to face racist attitudes
- For example, the **Bristol Bus Company** refused to employ Black bus drivers
- In 1963, Black residents in **Bristol** organised a **boycott** of the city's buses to protest against this
- This put pressure on the government to pass the **1968 Race Relations Act** which made it illegal to **discriminate** on the grounds of a person's race

5 Europe : In 1973, Britain voted to join the European Union

The European Union

- The European Union (EU) was set up after the Second World War to try to prevent further wars in Europe.
- Members agreed to:
 - Open their borders to allow easy trade, especially in goods like iron and coal
 - Allow people to migrate between countries to live and work
 - Share new scientific and technological discoveries
- 1975: Referendum**
- The British government was eager to join the EU because:
 - As a result of decolonisation, **Britain** had lost it's empire and needed another way **to influence** world affairs
 - EU members like **France** and **Germany** had enjoyed **economic booms** and **Britain** wanted to share in their wealth
- In 1975, the British people voted in a **referendum** to join the **European Union**

Impact of EU Membership

- **Migration:** British people migrated to warm countries like **Spain** and people from poorer EU nations such as **Poland** migrated to Britain to find work
- **The Economy:** Membership of the EU allowed Britain to trade freely with Europe and the EU funded the development of poorer areas such as **South Wales** and **Cornwall**
- **Laws:** Britain had to obey laws and standards agreed in the **European Parliament**

History: Knowledge Organiser 9: How did Britain change in the postwar period?

6 Thatcher

During the 1980s, Margaret Thatcher's Conservative government cut back the welfare state and attempted to improve Britain's position in the world

Margaret Thatcher

- **Margaret Thatcher** became Britain's first female prime minister when she was elected in 1979
- However, during her 13 years as **prime minister** she only appointed one other woman to a government role

Return to Laissez-faire

- Thatcher emphasised **individual responsibility** and **laissez-faire** over government support
- Her government cut back the **welfare state** and sold off **council houses** without building new ones
- **Poverty** and **inequality** increased rapidly

The Falklands War

- In 1982, **Argentina** invaded the **Falklands Islands**, one of the last remaining British colonies
- **British** forces defeated the **Argentines** in 2 months
- The victory seemed to show that **Britain** was still a powerful country

Key Vocabulary

decolonisation	being similar to everything else
liberal	accepting of different ideas and ways of living
contraception	methods of preventing pregnancy
to legalise	to make something allowed by law
abortion	ending a pregnancy
to discriminate	to treat someone differently
economic boom	a period of wealth and economic growth
referendum	a vote on a single question
to influence	to change what someone else is doing
laissez-faire	not interfering in people's lives
poverty	the state of being very poor

Y9 History Knowledge Organiser: The Miners' Strike

1.1 Coal Mining in Britain

'King Coal'

Britain's main natural resource is coal. Coal is found under the ground in coalfields and must be mined. The largest UK coalfields are in South Wales, Yorkshire, and Northumberland.

Coal became important after the Industrial Revolution because it could be used to power steam ships and trains, fuel power stations, and produce coke, which was used to make steel. It became known as 'King Coal' because it was so important to the economy.

By 1913, British coal mines produced 300 million tonnes each year. Britain exported more coal than the rest of the world.

Mining Villages

Before World War I, 1.2 million people were employed in coal mining. Small communities - known as pit villages - developed around coal mines for the families of miners.

Mining was dangerous and demanding work. Miners spent long days deep underground where they faced the risk of mine shafts collapsing. Miners often suffered from black lung - a disease caused by coal dust. Explosions were also common: in 1913 a gas explosion killed 493 men in Senghennydd, South Wales.

These dangers were made worse by mine owners who cared only about profit, not the safety of miners.

Trade Unions

Miners formed trade unions to protect themselves against health risks, wage cuts, and unemployment.

Unions used the threat of strike action to win demands from mine owners. They became powerful because of the idea of solidarity - all miners taking responsibility for each other.

The National Union of Mineworkers (NUM) was the most powerful trade union in Britain. By World War II, the NUM - along with other unions - had won important victories, including the weekend, the 8-hour work day, and wage increases.

The biggest victory came in 1947 when coal was nationalised. This meant the miners now worked for the government, not mine owners, and would be treated better. A government organisation called the National Coal Board was placed in charge of coal mining and miners.

1.3 Causes of the 1984-5 Miners' Strike

In March 1984, NUM members across the country began strike action against the Conservative government's plans to close coal mines. The miners spent over a year on strike.

Arthur Scargill

Scargill was the leader of the NUM. He believed the government wanted to destroy the miners. Thatcher was elected prime minister in 1979. She was a conservative and wanted revenge for Heath's defeat.

Scargill was a militant. He argued that strike action was the only way to save jobs. His experience in the Battle of Saltley Gate convinced him that the NUM could win. She believed in laissez-faire and wanted to reduce the size of the welfare state and privatisate coal.

Pit Closures:

In 1984, the government announced that 20 pits would close and 20,000 jobs would be lost. There were secret plans to close 75 more pits. The government claimed these pits were 'uneconomic' because they did not make profit.

The NUM responded by arguing for 'coal not dole' and threatened to call a strike if the closures were not stopped. When the closures continued, NUM members went on strike.

1.4 Miner's Tactics

Pickets

The NUM's goal was to stop the supply of energy to the country and force the government to give in. To do this, the miners needed to shut mines across the country.

Striking miners - known as pickets - formed a picket line outside their mines to stop other miners from going to work or coal being taken out. Miners who continued to work were known as scabs and they were often abused and intimidated. Pickets often clashed with police who were sent to protect working miners and keep the mines open.

Flying Pickets

Although almost all miners in South Wales, Yorkshire, and Scotland came out on strike, there was less support in other areas, such as Nottinghamshire.

Scargill sent flying pickets - bus loads of miners from areas that strongly supported the strike - to areas such as Nottinghamshire. The flying pickets tried to stop miners going to work and to prevent coal being moved.

Miners' Support Groups

During the strike, the miners - who were all men - did not get paid. In response, miners' wives set up support groups such as Women Against Pit Closures to raise funds. The support groups ran soup kitchens, organised jumble sales, and wrote leaflets supporting the strike. This allowed the miners to stay on strike for longer and put extra pressure on the government.

Other groups showed solidarity with the miners by raising funds. For example, an LGBT group called Lesbian and Gays Support the Miners (LGSMT) raised thousands of pounds.

Y9 History Knowledge Organiser: The Miners' Strike

2.5 Failure of the Miners' Strike

The 1984-5 Miners' Strike was a failure for the NUM and a significant victory for Thatcher's government. Miners returned to work in 1985 and the mines were privatised. From over 1000 pits in 1913, there are now just 3, employing just 4,000 people. Britain imports almost all its coal. Former pit villages have become areas of high unemployment. There were several reasons for the failure of the strike:

1. Government Preparation

- The Conservative government spent years preparing for the strike. The government
 - a) stockpiled enough coal to fuel the country for 6 months
 - b) switched power stations to gas
 - c) recruited extra police officers

2. Police Tactics

- The government trained the police in new military-style techniques to deal with striking miners, this included using
 - mounted officers, riot shields, and baton charges.
- Using these tactics police were able to stop pickets closing mines and power stations.

3. Economic Pressure

- The strike was technically illegal - because the NUM had not held a ballot - this allowed the government to stop benefits for striking miners. The government bribed miners to return to work.
- Many miners were forced to return to work in 1985 because their families were starving.

4. The Role of the Media

- All the major newspapers supported the government. Tabloids portrayed the miners as selfish and violent. The BBC publicised the number of miners returning to work. Thatcher called the NUM 'the enemy within' and used her speeches to turn public opinion against the miners.

5. Divide and Conquer

- Some areas did not support the strike. In Nottinghamshire, which produced 25% of the country's coal, miners did not strike. This was partly because the government promised to protect their jobs. Nottinghamshire miners were also already well-paid and worked in good conditions.

6. No National Ballot

- The law said that unions had to have a national ballot before taking strike action. The NUM did not do this. The NUM's failure to hold a national ballot allowed the government to portray them as undemocratic and caused some miners - such as those in Nottinghamshire - to not support the strike.

2.6 The Battle of Orgreave

Events

On 18th June 1984, the NUM sent 5,000 flying pickets - led by Scargill - to Orgreave to stop lorries carrying coke leaving the plant. The police arrived with 6,000 officers in riot gear, dogs, and 42 mounted officers.

When the first lorries arrived, the pickets tried to push their way through the police lines, but they failed. In response, the mounted police charged. They were followed by police with batons who hit the unarmed miners. After this, some miners threw stones back at the police.

After a two hour break, in which miners sunbathed and played football, the police charged again, forcing the miners to flee.

95 miners were arrested and charged with rioting, which meant they could face years in prison. However, all these charges were dropped as no evidence could be found. The police were forced to pay £425,000 in compensation.

Role of the Media

- The media presented the miners as responsible for the violence at Orgreave.
- On the news later that evening, the BBC edited the video footage to show the miners throwing missiles before the police charged. They also deleted footage which showed police chasing and beating miners. The report also highlighted the use of weapons by the miners. Later, the BBC was forced to admit that it had edited the footage and given a misleading account. Nevertheless, the public got the impression that miners were violent.
- The tabloid newspapers also supported the police. The next day The Sun described 'rock-hurling' miners and suggested that Scargill should feel 'shame' for encouraging violence.
- The pro-government media coverage had a significant impact of public opinion. By December 1984, a poll found that 88% of the public disapproved of the miners' methods.

VOCABULARY

Ballot	A vote
BBC	The British government-owned media organisation
Baton	A stick used to hit people
Black lung	A lung disease cause by inhaling coal dust
Coalfields	Areas where coal can be mined
Coke	A substance that can be produced from coal and makes steel
Conservative	Political party
Compensation	Money to make up for a mistake
Dole	Slang for unemployment benefit
Edited	Changed
Export	Sell goods to other countries
Flying Pickets	Miners bused to other places to close mines
Footage	Video
Import	Buy goods from other countries
Laissez-Faire	Political idea of opposing government intervention
Media	TV / radio / newspapers
Militant	Wanting confrontation, especially strikes
Mine owners	Businessmen who own mines
Misleading account	A story that exaggerates or changes details
Mounted	On horseback
Nationalise	Bring under government control
NUM	The National Union of Mineworkers (the miners' trade union)
Nottinghamshire	A county in central England
Picket	A miner who is on strike and trying to close his mine
Picket line	A group of pickets trying to close a mine
Pit Villages	Communities that depended on a mine
Privatise	Remove from government control and sell to businessmen
Profit	Money
Public opinion	The ideas that ordinary people have
Recruited	Hired
Riot gear	Shields / helmets / etc
Scabs	Miners who did not go on strike
Seized	Took control of
Solidarity	Showing support for others
Stockpile	Build up a supply
Strike	Stopping work in protest
Support groups	Groups who raised money to support the NUM
Tabloid newspapers	Cheap and popular newspapers
Tactics	Plans / methods
Trade unions	Organisations of workers
Undemocratic	Not based on voting
Uneconomic	Not making profit

Y9 History Knowledge Organiser: Black British 20th Century History

1.1 Black British History before 1914

Black people have lived and worked in Britain since earliest times. By the start of the 20th Century, Britain's empire meant there were established Black British communities.

Early Black Britons:

Ivory Bangle Lady was buried in York in the 3rd Century. Her grave goods show that:

- ✓ She was wealthy
- ✓ She was Christian
- ✓ Analysis of her skeleton has shown that she had African heritage

John Blanke lived in England in the 1500s working as a trumpeter for Henry VIII. His records show:

- ✓ That African people lived in Britain before slavery
- ✓ African people in England could get well respected jobs

Black Britons in the late 19th and early 20th Centuries:

Many Black people living in Britain had links to empire, living in Britain for:

- ✓ Work, or arriving as seafarers
- ✓ Studying at University

John Richard Archer was born in Liverpool in 1863 to Barbadian and Irish parents. During his life Archer:

- ✓ Travelled the world working on ships
- ✓ Moved to London and became involved in local politics, winning a seat as a local councillor
- ✓ In he became 1913 Mayor of Battersea.

Despite his success he still faced racism; some people opposed him becoming mayor because of his race.

✓ 1.2 The First World War

During the First World War many Black Britons and Black people in the British Empire volunteered to fight for Britain. Despite this many still faced racist attitudes and policies from the British authorities

During the First World War many Black people from the Empire volunteered to fight including:

- ✓ 1000s of Ghanaians fought in the Gold Coast Regiment
- ✓ One million Africans worked as 'carriers' in Africa for the army
- ✓ 15,000 volunteered for the British West Indies Regiment

However the British government resisted this:

- ✓ The War Office did not want Black soldiers to fight white soldiers, incase it weakened the racial hierarchy
- ✓ As a result, Black regiments rarely fought on the Western Front but in Africa and the Middle East

Experiences of Black volunteers:

Walter Tull:

- ✓ A professional footballer with Barbadian and English parents
- ✓ Tull volunteered and fought on the Western Front, he was promoted to lead a unit of white soldiers

However mistreatment and racism persisted:

- ✓ Many Black Britons were turned away because of their race
- ✓ Many Black volunteers from the Empire returned home disillusioned by the racism they faced

1.3 The aftermath of the First World War

The immediate post war period highlighted the racism of the British government:

- ✓ During victory parades white British and white colonial soldiers were allowed to march, Black soldiers were not
- ✓ When a pay rise was announced for colonial soldiers, Black soldiers were left out until they mutinied

An economic depression after the First World War left many returning soldiers without work. White soldiers blamed Black workers for this, leading to race riots in London, Cardiff, Newport and Liverpool where:

- ✓ White Britons attacked Black people
- ✓ Black people, many of whom had been born in Britain were taken into police custody for their won safety
- ✓ Homes and hostels where Black people lived were destroyed
- ✓ One man, Charles Wooten a Black Briton, was killed. He was chased into Liverpool docks where he drowned, watched by a crowd of hundreds

1.4 The Second War

The Second World War saw two different stories: the experiences of Black GIs in Britain, and the treatment of Black soldiers in the British army.

Black GIs in Britain

In the 1930s America was a segregated country. In general Black GIs were treated better in Britain than in the USA:

- ✓ American racism was more obvious, involving segregation and beatings, the British were proud that they did not behave in the same way
- ✓ The British government still allowed segregation within American facilities
- ✓ Some businesses in Britain refused entry to Black people when white GIs were there

Black soldiers from the Empire

The British army initially opposed using Black colonial soldiers in the army, however eventually they allowed black soldiers to fight in Europe:

- ✓ Over 372,000 Africans fought for Britain, mainly in Africa, but also in Burma in Asia
- ✓ 16,000 West Indians men and women volunteered for the British Army
- ✓ 6,000 West Indians volunteered for the Royal Airforce
- ✓ Over 600 Honduran foresters were sent to work in the forests of Scotland, and 350 West Indian engineers worked in Liverpool

Y9 History Knowledge Organiser: Black British 20th Century History

2.1 Post-war migration

After the Second World War Britain needed over 1 million workers to help it rebuild. Despite this the British government tried to discourage Black citizens from the Empire migrating to Britain.

Reasons for migration to Britain from the Caribbean:

Push factors:

- ✓ Jamaica's economy had been hit hard by hurricanes, one in 1944 and a huge one in 1951

Pull factors:

- ✓ Britain portrayed itself as the *Mother Country* to citizens in the Empire

- ✓ Many West Indians had been to Britain during the Second World War, they were some of the first migrants after 1945

- ✓ The USA restricted Caribbean migration from 1952

Reception

The government:

- ✓ Ten MPs wrote to the Prime minister against allowing the Windrush to dock in Britain
- ✓ The British government looked for ways to reduce Commonwealth migration without upsetting the Commonwealth

Businesses:

- ✓ the NHS, bus and rail companies and hotels all actively recruited workers from the Caribbean
- ✓ Many highly skilled workers still found themselves in low skill jobs

2.3 Stephen Lawrence and his legacy

In 1993 Stephen Lawrence was murdered in a racist attack in London. The poor policing that followed highlighted the racism of the police towards the Black community.

Who was Stephen Lawrence?

A young 18 year old, who wanted to be an architect. His parents had emigrated from the Caribbean to London, where Lawrence was born.

What happened?

Lawrence was murdered in April 1993 on his way home. A group of five white youths attacked and stabbed Lawrence.

The police identified the five murder suspects within three days, but they were not arrested until two weeks later. **Stephen's family have worked to ensure that Stephen is not forgotten and to improve the lives of other young people:**

- ✓ The Stephen Lawrence Trust which works to help young people
- ✓ Stephen's mother Doreen Lawrence was made a peer in recognition of her campaigning
- ✓ As a result of the Lawrence family's work, the Macpherson Report stated that the Metropolitan Police were institutionally racist

2.2 Impact of an increased Black presence in Britain An increased Black presence in Britain

Cultural

Notting Hill Carnival was established 1959 by Claudia Jones to:

- ✓ Shows strength and solidarity within the Caribbean community
- ✓ Improve relations with other communities in the area

It is now has 2 million attendees each year

Blues parties were informal clubs which played reggae and dub music:

- ✓ Many Black people were excluded existing venues
- ✓ They were safe spaces for Black people to dance and socialise

Political

1968 Commonwealth Immigration Act. This act:

- ✓ Stated migrants from the Commonwealth either had to be born in the UK or have a grandparent born there
- ✓ This made it harder for Black people to migrate

During the 1960s and 1970s there was an increase in support for racist organisations like the National Front

- ✓ Saw a rise in votes for racist groups at local elections
- ✓ Saw an anti-racist response from people of all races who were disgusted by the racism they saw.

In 1987 three Black and one Asian MPs were elected to Parliament, the first Black MPs since 1865.

- ✓ Diane Abbott, Paul Boateng, Bernie Grant and Keith Vaz
- ✓ All four were elected to the Labour Party

Social

Notting Hill riots, 1958. During the riots:

- ✓ For two nights in the summer of 1958 400 white men attacked the homes of Black people
- ✓ On the third night Black men in the area organised themselves to protect their homes, which caused the police to act

Bristol Bus Boycott, 1963.

- ✓ Paul Stephenson led a boycott of Bristol's bus company as the buses refused to hire Black or Asian workers
- ✓ The boycott forced the Bus Company to change their policies.

In the 1980s there were large uprisings of mainly Black youths in London, Liverpool and Bristol. These were caused by:

- ✓ Unfair police policies which targeted Black youths
- ✓ Unemployment which disproportionately affected Black youths

Year 9 Geography - Topic 5 – Is China a superpower?

KP1: Key words

Nation-state: a nation which also has a government.

BRICS: an acronym for five leading emerging economies: Brazil, Russia, India, China, and South Africa.

Consumerism: Refers to the theory that spending money and consuming goods is good for the economy and a person's happiness.

Contested: In competition for a position of power.

Exploitation: taking advantage of a resource

GDP: Gross Domestic Product: the total amount of goods and profits a country owns

Global shift: An increase in the proportion of global manufacturing carried out in NEEs and LICs

Hard power: when countries use threats and force to try to get other countries to do what they want.

Interdependence: when one or more

countries are dependent on each other
Nation: community of people based on their shared history, culture, ethnicity or language.

Soft power: when countries use persuasion and culture to achieve these goals.

Sovereignty: the authority of a state to govern itself or another state.

Superpower: "A superpower is a state which has both hard (economic, military, geographical) and soft (cultural) influence to project power globally".

Topographical map: a map that indicates the features of the land's surface, such as mountains, hills, and valleys

KP11: What is a superpower?

"A superpower is a state which has both hard (economic, military, geographical) and soft (cultural) influence to project power globally".

- **Why is geographic size important?** - Countries with a large land area are important because they tend to have greater natural resources and can extend influence over a larger number of neighbours. For example, Russia has a very large land area with huge natural resources. It has 14 neighbours who it tries to influence.

- **Why is population important?** - Countries with a large population are seen as important because cheap workers can help to promote economic growth. For example, China and India and larger populations encourage economic growth through markets e.g., European Union.

- **Why are resources important?** - Countries with resources necessary for economic development should hold significant power. For example, Russia has a large supply of natural gas, and the Middle East has a large supply of oil. However, some raw materials aren't that valuable e.g., Australia and iron ore.

- **Why is military power important?** - Military force can be used to exert pressure. Countries with a large military could be viewed to be more powerful. The type of weapons owned is more important than the number of soldiers. Countries in possession of nuclear weapons: USA, Russia, UK, France, China, India, Pakistan, North Korea, (Israel). Additionally, some countries can project power round the world with military bases and aircraft carriers.

- **Why is economic power important?** - Countries with the largest economies have a big influence over global economies. These countries have: around 2/3 of world GDP, control investment, use the world's most powerful currencies (\$, £ and €) and determine economic policies which affect the globe.

- **Why is cultural power important?** - This is how appealing a nation's way of life, values and beliefs are to others. It is sometimes called soft power. It is often happening through film, the arts and food. Britain has a lot of soft power due to the language and the entertainment industry. Some superpowers seek to project their beliefs onto others. For example, the USA promotes 'western values' of individual liberty, free-market capitalist economics and consumerism.

KP12 – How do countries get power and influence?

Countries can get power and influence through hard and soft power:

- **Hard power** is when countries use threats and force to try to get other countries to do what they want.
- **Soft power** is when countries use persuasion and culture to achieve these goals.

Examples of hard power:

- **Threat of conflict:** Threaten war or conflict unless they do what YOU want.
- **Freeze assets:** Stop them from accessing their overseas bank accounts
- **War:** Declare war to try to force countries to do what you want
- **Expel diplomats:** Tell foreign embassy workers to GET OUT and STAY OUT of your country
- **Ban or limit trade (embargos and sanctions):** Limit or prevent any trade between countries
- **Close embassy:** Tell your ambassador and her team to come home
- **Espionage:** Spying, assassination or sabotage

Examples of soft power:

- **Panda diplomacy:** Loaning important artefacts to other countries
- **International sports:** Demonstrate your sporting power against rivals
- **Open embassy:** Provides a representative for you in another country
- **Deals and pacts:** To show friendship, improve trade or defend each other
- **Increase trade:** To increase economic links between countries
- **Promote culture:** Influence their culture by promoting your music, films, TV shows, etc
- **Give loans or aid:** To make them like you, owe you or depend on you

KP13 – How does China's physical landscape help it develop?

- Climate suitable for farming e.g. rice
- Tourism opportunities in the Gobi Desert and Himalayas
- Complex relief has discouraged foreign invasion
- Long coastline: large ports and trading opportunities
- Two extensive river systems (Yellow & Yangtze Rivers) played a major role in moving goods and commodities from production sources
- Large geographical land mass; typically, more resources
- Influence over many neighbouring countries

Year 9 Geography - Topic 5 – Is China a superpower?

KPI 4 - How did China rise in power from being 'the workshop of the world'?

What are the reasons behind China's economic growth?

- **Labour supply:** China has a plentiful supply of people available for work, as you would expect from the world's largest population.
- **Poverty reduction:** Since 1990, 439 million people have been lifted out of poverty, creating a growing market for consumer goods, leading to further industrial growth.
- **Large percentage of female workers:** This has meant that women have been involved in child-raising for a much shorter period than most countries, adding to an already large labour supply.
- **Investment infrastructure:** The government has built many new roads, rail systems and made rivers navigable. China has 5 of the 10 largest container ports in the world.
- **Low wages:** Low wages increase the amount of profit industries can make
- **Energy supply:** China is the largest producer and consumer of coal in the world and is the world's largest user of coal-fired power stations. As the economy of China has grown, so has the consumption of coal-generated electricity.
- **Natural resources:** China has about 12% of the world's mineral resources, with only the USA and Russia possessing larger proportions.
- **Political systems and strong leadership:** In China the government controls the economy rather than private businesses. The government makes all the decisions and can plan for the long term. This provides clear direction and stability in which the economy has thrived.
- **Location:** China is located close to the strong economy and market of Japan and also the Newly Emerging Economies of other Asian countries, such as India and South Korea, as well as Russia and the Middle East.

Why have factories started to shift away from China?

- Trade wars with the USA
- LICs / less industrialised countries offering cheaper alternatives
- China now producing higher value goods
- Workers demanding better conditions, pay and security
- The rise of the 'middle classes' in China; China's middle class has started showing its hunger for consumer goods and products of much higher quality
- Environmental concerns of smog & air pollution

KPI5 – Is China helping to create an independent world?

The Belt and Road Initiative

A development campaign where China is trying to boost trade and economic growth across Asia by getting LICs to borrow money for huge infrastructure projects such as deep-water ports, airports, bridges, motorways, dams, power plants and broadband connections.

Road initiative: It involves establishing sea trading routes linking China's south coast to east Africa and the Mediterranean.

Belt initiative: involves a series of overland corridors connecting China with Europe.

Many people around the world suspect that China is actually tricking LICs by creating these 'debt traps'. For example, Kenyans have recently raised concerns over China's plans to take over one of its strategically important seaports, as a result of Kenya being unable to repay the debts it owes to China to build the project in the first place.

South China Sea dispute: The contested space of the South China Sea includes some small island chains. It is contested because:

- The Paracels and the Spratlys may have reserves of **natural resources** around them. (**OIL & GAS**)
- The sea is also a **major shipping route** and home to **fishing grounds** that supply the livelihoods of people across the region.
- It would give China access to shipping lanes (\$5.3 Trillion & 1/3 of global maritime trade)

KPI6 – Inter-governmental organisations

Intergovernmental organisations are international groups, made up of several different countries who play a large part in the making of international laws. We need them to allow states to cooperate and coordinate in specific fields while retaining their sovereignty and help to hold states/ individuals accountable for injustice- can act to foster peace and uphold international law.

Examples:

The **United Nations (UN)**: aims to maintain peace and security across the world, to improve relationships between countries, to encourage nations to work together to solve international problems.

World Trade Organisation: an organisation to help trade flow as freely as possible and to remove or reduce trade barriers

The **International Monetary Fund (IMF)**: works to encourage global monetary cooperation, secure financial stability, facilitate international trade, promote high employment and sustainable economic growth, and reduce poverty around the world.

World Health Organisation: WHO is responsible for giving direction on international health issues, setting standards, and providing information for governments to make decisions.

Year 9 Topic 4 Knowledge Organiser – How dangerous are tectonic hazards?

KPI1 – What causes tectonic plates to move?

Structure of the Earth

1. The **inner core** is in the center and is the hottest part of the Earth. It is solid and made up of iron and nickel with temperatures of up to 5,500°C.
2. The **outer core** is the layer surrounding the inner core. It is a liquid layer, also made up of iron and nickel.
3. The **mantle** is the thickest section of the Earth at approximately 2,900 km. The mantle is made up of semi-molten rock called magma.
4. The **crust** is the outer layer of the Earth. It is a thin layer between 0 - 60 km thick. The crust is the solid rock layer upon which we live. It is either **continental** or **oceanic**. The earth's crust is broken into plates.

How do tectonic plates move?

Theory 1: Convection Currents

Heat rising and falling inside the mantle creates convection currents. The convection currents move the plates floating on the mantle. Where convection currents diverge (separate) near the Earth's crust, plates move apart. Where convection currents converge (move together), plates move towards each other.

Theory 2: Slab Pull

The denser plate sinks back into the mantle under the influence of gravity. It pulls the rest of the plate along behind it.

Theory 3: Ridge Push

Magma rises as the plates move apart. The magma cools to form new plate material. As it cools it becomes denser and slides down away from the ridge. This causes other plates to move away from each other.

KPI2 – How are tectonic hazards caused?

Destructive Plate Margin

1. A **destructive plate margin** usually involves an **oceanic** plate and a **continental** plate.
2. The plates move **towards** one another, and this movement can cause earthquakes.
3. As the plates collide, the oceanic plate is forced beneath the continental plate. This is known as **subduction**. This happens because the oceanic plate is denser (heavier) than the continental plate.
4. When the plate sinks into the mantle it melts to form magma. The pressure of the magma builds up beneath the Earth's surface. The magma escapes through weaknesses in the rock and rises up through a **composite volcano**. The volcanic eruptions are often violent, with lots of steam, gas and ash.

Constructive Plate Margin

1. At a **constructive plate margin** the plates move **apart** from one another.
2. When this happens the magma from the mantle rises up to make (or construct) new land in the form of a **shield volcano**.
3. The movement of the plates over the mantle can cause earthquakes.

Conservative Plate Margin

1. At a **conservative plate margin**, the plates move past each other or are side by side moving at different speeds.
2. As the plates move, friction occurs, and plates become stuck. Pressure builds up because the plates are still trying to move.
3. When the pressure is released, it sends out huge amounts of energy, causing an earthquake.
4. There are no volcanoes at a conservative plate margin.

KPI3 – Why are some volcanoes more dangerous than others?

Structure of a volcano

Volcanoes have distinctive features:

- **magma chamber** - this is where the molten rock is stored beneath the ground
- **main vent** - this is the channel through which **magma** travels to reach the Earth's surface
- **secondary vent** - some magma may escape through the side of the volcano, particularly if the main vent becomes blocked
- **crater** - this is found at the top of the volcano, where the magma erupts from.

Why do volcanoes erupt?

1. Hot, molten rock (magma) has a low density and will rise up through the crust to erupt on the surface.
2. If magma has large amounts of gas and a high viscosity (sticky) magma will form an explosive eruption.
3. If magma has a small amounts of gas and (or) low viscosity (runny) magma will form a gentle eruption. Where the magma just trickles out of the volcano (lava flow).

Types of Volcanoes

Shield Volcano - found on **constructive plate margins**, where two plates move away from one another. Shield volcanoes have the following characteristics:

- **basic lava**, which is non-acidic and very runny
- gentle sides as the lava flows for long distances before it solidifies
- no layers, as the volcano just consists of lava
- less violent eruptions
- shorter periods between eruptions

Composite Volcano – found when the oceanic crust sinks beneath the continental crust.

Composite volcanoes have the following characteristics:

- **Acidic lava**, which is very viscous (sticky).
- Steep sides as the lava doesn't flow very far before it solidifies.
- Alternate layers of ash and lava. For this reason, they're also known as **stratovolcanoes**.
- Strato means layers.
- Violent eruptions.
- Longer periods between eruptions.

Year 9 Topic 4 Knowledge Organiser – How dangerous are tectonic hazards?

KPI4 – What hazards are produced by volcanoes?

1. **Pyroclastic flows** - A pyroclastic flow is a thick cloud of volcanic ash and gas. As they are heavier than air, they flow from volcanoes down into valleys. Pyroclastic flows move at speeds of over 100km per hour and can easily flow 8km from a volcano. The temperatures inside a pyroclastic flow can be between 200°C and 700°C, meaning it burns and destroys everything in its path.
 2. **Ash clouds** - Volcanic ash is a mixture of rock, mineral, and glass particles expelled from a volcano during a volcanic eruption. The particles are very small—less than 2 millimeters in diameter. Due to their tiny size and low density, the particles that make up volcanic ash can travel long distances, carried by winds. Volcanic ash can be dangerous because its particles are very hard and usually have jagged edges. As a result, it can cause eye, nose, and lung irritation, as well as breathing problems. Also, while in the air, ash can cause problems for jet engines, forcing airlines to cancel flights through the affected area.
 3. **Volcanic bombs** - Volcanic bomb is pyroclastic rock that is a cooling of a mass of lava it flies thorough the air after eruption. If it is to be called a bomb, a specimen must be larger than 2, 5 inch diameter. Volcanic bombs are heavy and often fly at high speed. However, bombs do not travel very far.
 4. **Lahars** - A lahar is a fast-flowing mudflow (up to 70km per hour) that is made up of volcanic ash and either:
 - a. Hot water (from the lake in the volcanoes crater) or,
 - b. Cold water (from melting snow and ice). Lahars have a texture very similar to concrete.
 5. **Volcanic flows** - Lava flows are streams of molten rock that pour or ooze from an erupting vent. The speed at which lava moves across the ground depends on several factors including:
 - a. type of lava erupted and its viscosity
 - b. steepness of the ground over which it travels
 - c. whether the lava flows as a broad sheet, through a confined channel, or down a lava tube
 - d. rate of lava production at the vent.
- Everything in the path of an advancing lava flow will be knocked over, surrounded, buried, or ignited by the extremely hot temperature of lava. Deaths caused directly by lava flows are uncommon because most move slowly enough that people can move out the way easily.

KPI5 – Why do people live near tectonic hazards?

1. **Geothermal Energy:** Water is pumped into permeable rock, the natural heat in volcanic areas turns that water into super-heated steam, which turns the turbine to create electricity. 30% of Iceland's electricity is Geothermal energy.
2. **Farming:** Weathering of volcanic lava & ash leaves fertile soil rich in nutrients. Farming in volcanic soils supports 10% of the world's population.
3. **Mining:** Volcanic eruptions create minerals which generates thousands of jobs. Sulphur from Indonesia is used to bleach sugar, make medicines, matches & fertiliser.
4. **Tourism:** More than 100 million tourists visit volcanic sites every year, generating thousands of jobs and income for countries.

KPI8 – What causes tsunamis?

A tsunami can be triggered by events like landslides and volcanoes, however most tsunamis are caused by earthquakes at destructive plate boundaries.

1. A sudden shift in plate movement causes water displacement at the epicentre
2. Large waves move along the seabed away from the epicentre
3. As the waves move from deep water to shallow water near the coastal area, they increase in height and

KPI9 – How can we manage tsunamis?

Sea Wall: In Japan sea walls up to 14 metres high have been built to offer two key protections:

1. Bouncing back the power of the waves, which reduces damage
2. Buying time for evacuation.

Early Warning System: The Pacific Tsunami Warning System is made up of a network of seismic-monitoring stations and sea level gauges. These detect earthquakes and changes in sea level.

KPI6 – Can people manage risk living near volcanoes?

- **Prediction:** Volcanologists monitor volcanoes all over the world and take readings to determine change so they can predict when a volcano is likely to erupt. One method of prediction is thermal imaging.
- **Planning:** Helps communities to respond and recover from a natural disaster, such as a volcanic eruption. It includes drawing up evacuation plans and using hazard maps to prevent building in high risk areas where lava might flow.
- **Preparation:** Involves educating people on what to do if a volcano erupts such as preparing leaflets and videos giving advice on how to protect yourself.

KPI8- describe and explain the causes, impacts and responses of the Boxing Day Tsunami

Location and cause	26 December 2004 The earthquake measuring more than magnitude 9. The earthquake caused the seafloor to uplift, displacing the seawater above.
Impacts	250,000 people died. Two million people were made homeless. People were swept away in the waters, which arrived rapidly and with little warning. Thirteen countries were affected, the worst being Indonesia. Indonesia was hit by the tsunami first. Forty-five minutes later the tsunami reached Thailand. Short-term aid, such as water purification tablets, temporary housing and medical supplies were given from international countries.
Responses	Islands reliant on tourism and fishing, such as the Maldives, had to rebuild their industries. An early warning system between countries surrounding the Indian Ocean has been set up.

Year 9 French – Jours ordinaires, jours de fête (Routine and festivals)

1	Usually for breakfast I eat cereal and I drink some coffee	D'habitude pour le petit-déjeuner je mange des céréales et je bois du café
2	On school days, I must get up early so that I am on time	Les jours d'école, je dois me lever tôt pour que je sois à l'heure
3	I must dress myself in uniform; a red skirt and a blue blazer	Je dois m'habiller en uniforme ; une jupe rouge et une veste bleue
4	I find it quite comfortable but I would prefer to wear my own clothes	Je le trouve assez confortable mais je préférerais porter mes propres vêtements.
5	When I return home, I put on jeans and a hoodie.	Quand je rentre chez moi je mets un jean et un sweat à capuche
6	What do you wear to school? Do you like your school uniform?	Qu'est que tu portes au collège ? Aimes-tu ton uniforme scolaire ?

7	Sunday is my favourite day because I can have (do) a lie-in	Le dimanche c'est mon jour préféré, parce que je peux faire la grasse matinée.
8	What do you do on Sundays at your house?	Qu'est-ce que tu fais le dimanche chez toi ?
9	My favourite festival is Easter because I eat chocolate eggs. I love it because it's delicious.	Ma fête préférée c'est Pâques car je mange des œufs en chocolat. J'adore ça car c'est délicieux.
10	Furthermore, I love April Fool's Day (April fish) because it's very funny.	De plus, j'adore le Poisson d'avril car c'est très rigolo.
11	At mine at Christmas, we eat turkey and we exchange presents.	Chez moi à Noël, on mange de la dinde et on s'offre des cadeaux.
12	Last Christmas I decorated the Christmas tree and I spent time with family.	A Noël dernier j'ai décoré le sapin de Noël et j'ai passé du temps en famille.

Example of what LSQs should look like in MFL:

13	Next year I am going to visit my grandparents (in order) to celebrate it together.	L'année prochaine je vais rendre visite à mes grands-parents pour le fêter ensemble.
14	What do you do for Christmas?	What do you do for Christmas?
15	I'm coming from going (I have just gone) to a party with my mates and it was absolutely incredible!	Je viens d' (de) aller à une fête avec mes potes et c'était absolument incroyable !
16	A few days ago it was my birthday,	Il y a quelques jours c'était mon anniversaire,
17	I invited my friends to mine and we danced a lot.	j'ai invité mes copains chez moi et on a beaucoup dansé
18	In July my cousin is going to get married and I wait for it with impatience (I can't wait)!	En juillet ma cousine va se marier et j'attends ça avec impatience !

Questions	Answers - Test yourself
1 Live in a town which really stinks (is called) York	J'habite dans une ville qui s'appelle York
2	York
3	J'habite dans une ville qui s'appelle York
4	J'habite dans une ville qui s'appelle York
5	et qui se trouve dans le sud-ouest de l'Angleterre et qui se trouve dans le sud-ouest de l'Angleterre
6	et qui se trouve dans le sud-ouest de l'Angleterre
7	et qui se trouve dans le sud-ouest de l'Angleterre
8	C'est une petite ville près de Bristol
9	C'est une petite ville près de Bristol
10	C'est une petite ville près de Bristol

SPANISH- YEAR 9- MI GENTE (MY PEOPLE)

15	I hate Twitter because it gets you hooked.	Odio Twitter porque te engancha .
16	Often I read magazines because I find them incredible.	A menudo leo las revistas porque me parece que son increíbles .
17	I don't like to read (reading) newspapers because I think that they are boring.	No me gusta leer los periódicos porque pienso que son aburridos.
18	I prefer to read in digital format because it protects the planet.	Prefiero leer en formato digital ya que protege el planeta .

PHOTO DESCRIPTION	
P	en la foto hay una persona/dos personas
A	juega/juegan, lee/leen, descansa/descansan, come/ comen
L	está/ están en...un parque, un restaurante, un colegio, el cine
M	creo que está/ están contentos, emocionados– tristes, serios

w	pienso que hace calor, frío// pienso que es verano, invierno
---	---

Modal verbs	
Do you want to go out?	¿quieres salir?
can you help me	¿puedes ayudarme?
1. I want to go to the cinema	quiero ir al cine
2. I can't go out	no puedo salir
3. I have to study	tengo que estudiar

This how your MFL quiz should look:

Questions	Answers - Test yourself
1. Lire n'a rien de difficile (un livre) j'ai lu dans une semaine que 5 pages	Je ne
2.	J'ai lu dans une semaine que 5 pages
3.	Je ne
4. Quel est le livre que tu as lu ?	Je ne
5. Quel est le livre que tu as lu ?	Je ne
6.	Je ne
7.	Je ne
8. Quel est le livre que tu as lu ?	Je ne
9.	Je ne
10.	Je ne

SPANISH- YEAR 9- MI GENTE (MY PEOPLE)

1	In my family there are six people	En mi familia hay seis personas
2	me, my dad, my step-mum, my half sister and my younger brother.	yo, mi padre, mi madrastra, mi media hermana y mi hermano menor.
3	I have red, long hair and blue eyes.	Tengo el pelo rojo y largo y los ojos azules.
4	My dad has blonde hair and green eyes.	Mi padre tiene el pelo rubio y los ojos verdes.
5	I would say that my half sister is really serious	Diría que mi media hermana es verdaderamente seria
6	and also she is totally chatty.	y también es totalmente habladora.
7	In general I get on well with my step-mum	Por lo general me llevo bien con mi madrastra

8	because according to me she is kind and funny.	ya que según yo es simpática y graciosa.
9	However, from time to time I argue with my dad because he annoys me.	Sin embargo, de vez en cuando me peleo con mi padre porque me molesta .
10	For me, a good friend is someone who	Para mí, un buen amigo es alguien que
11	supports you and doesn't criticise you.	te apoya y no te critica .
12	I met my best friend four years ago.	Conocí a mi mejor amiga hace cuatro años.
13	I use TikTok (in order) to upload and watch videos.	Uso TikTok para subir y ver videos.
14	I really like Instagram because it's free.	Me gusta mucho Instagram dado que es gratis .

Yr 9- Is there life after death?			
Immortality	The ability to live forever; eternal life.	KPI1- Describe beliefs surrounding immortality	
Resurrection	Rising from the day – Christian belief celebrated on Easter Sunday	• Atheists and humanists believe that nothing survives death. There is no soul; we are just physical, material beings, so when we die that is the end. • Hindus, Buddhists and Sikhs say we will be reincarnated according to the law of karma. The aim of every living being is to escape from this cycle of birth and death (samsara), to gain enlightenment • Jews, Christians and Muslims believe in resurrection, heaven and hell. After death we will rise from the dead to be judged by God.	
Reincarnation	The belief that the soul is reborn into a new body	KPI2 Explain contrasting views surrounding the soul	
Materialism	Nothing else exists apart from matter.	Dualism is the belief that we are made of two separate parts: a physical body and a spiritual soul. Dualists believe that our soul (or spirit) lives in our physical body, Descartes. Materialism is the view that nothing else exists apart from matter. All we have, as human beings, is a physical body; there is no soul or spirit. Aristotle	
Soul	The spiritual part of a human being. It is believed by many that the soul is eternal.	KPI4 : Explain Christian belief in the after life	
Dualism	A physical body and a spiritual soul.	Heaven- Heaven is described as eternity in the presence of God. Heaven is the ultimate aim for all Christians in order for their soul to be reunited with God and united with Christ. “In my fathers house are many rooms” , “There will be no more pain and sorrow” .	
Apostles creed	“I believe in the resurrection of the body and life everlasting.”	Hell- Christians believe that Since God has given human beings free will, there must be an opportunity for people to reject God. This is the basis of the idea of Hell.	
Heaven	A physical place, or a state of mind, associated with God and the afterlife.	KPI3: Examine Christian belief in the resurrection	
Hell	A place of torment and punishment for those who have done wrong.	• Christians believe in resurrection and eternal life • Christians believe that just as Jesus rose again after death • Judgement Day • Those who believe in Jesus and have lived a good life will be taken to heaven. Those who have rejected God’s love and caused harm to others will be sent to hell. The Parable of the sheep and goat	
Purgatory	Roman catholic belief- some people who have sinned are purified in a 'cleansing fire'	He will come to judge the living and the dead “I am the resurrection and the life.”	

Yr 9- Is there life after death?

Atman	The essence of a being. Can refer to body, mind or soul
Samsara	Cycle of death and rebirth
Karma	Actions, and the consequences of actions.
Moksha	Ultimate goal for all atman (spirits/souls) as laid out in Hindu scripture; escape from the cycle of reincarnation.
Bhakti yoga	Devotion and developing pure love of God
Jnana yoga	A type of Hindu meditation
Atma	Sanskrit word that means soul.
Sewa	Selfless service to the community
Tan	Physical service, eg working in the langar.
Man	The mental aspect of Sewa, eg teaching the Guru Granth Sahib.
Mukti	Sikh belief/ liberation freedom of the soul

KPI5- Explain Hindu belief in the afterlife

- Most Hindus believe that humans are in a cycle of death and rebirth called **samsara**.
- When a person dies, their **atman** is reborn in a different body.
- Hindus believe in karma or 'intentional action'.
- Many believe good or bad actions in life leading to positive or negative merit, determines the atman's **rebirth**.

KPI5- Hindu belief on how to achieve good merit

Most Hindus believe that good merit is achieved by following your dharma (teaching). The Bhagavad Gita details four different ways that moksha can be achieved: Karma, bhakti, jnana yoga and meditation.

KPI6 Describe Sikh belief in the afterlife

- Sikhs believe in the cycle of **samsara** and believe that everyone has a chance to reach Waheguru in **mukti** (liberation).
- In order to reach mukti, Sikhs must live their lives with Waheguru in their mind at all times. They must also act with love and compassion towards others. Therefore, they attempt to live their lives in a God-centred way.

Sikhs believe that in order to break free from the cycle of samsara they must lead a life that is **gurmukh**, which means God centred, and not **manmukh**, which means self-centred.

"The body is the field of karma and in this age; whatever shall plant, you shall harvest." Guru Granth Sahib

KPI7 : Humanist perspectives of the afterlife

- Humanists do not believe human beings have a **soul**.
- Unlike the body, they do not see any evidence for it.
- The BHA's slogan, **'for the one life we have,'** sums up the attitude of many humanists.
- The more important question for them is not whether there is an afterlife but how we should live this life.
- Humanists also believe something of us does survive our death, so we do in a sense live on after we die, or can at least still have an impact on the world and other people. For example; atoms, genes, thoughts, works.

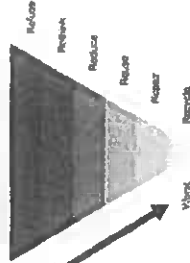
'Do not act as if you were going to live for a thousand years... while you are alive, while it is still possible, become a good person.' Marcus Aurelius (121 – 180)



Design & Technology Year 9

The 6 R's

The 6 R's are an important checklist. They are used by designers to reduce the environmental impact of products. They can also be used to evaluate the environmental impact of other products. The hierarchy of sustainability places the strategies that are best for the planet about those that have a greater negative impact on the environment.



1. Refuse

The first stage in the process is to ask whether the proposed product, part, purchase or even journey is required at all. Asking the question 'is it really necessary?' can play a major role in reducing the demand on materials. Simply not using something saves 100% of what you have chosen not to use. Example include:

- Using your own carrier bag rather than purchasing a new one.
- Walking or cycling to school instead of being driven.
- Not using products such as some pesticides that are known to be harmful to the environment.
- Not eating (or using) products that are over-farmed, over-fished or on the endangered list.

2. Rethink

Consumers have a growing number of choices to make about where and on what they spend their income. Greener and more sustainable options are not always the cheapest or the best, but making informed decision and rethinking ones spending power can play a huge part in conserving resources.

Deciding on the design of a product, e.g. the materials being used in its production, will directly affect its sustainability. The types of questions designers need to ask are:

- Are the materials locally sourced?
- Are they sustainably produced?
- Is it essential to use this material, of which there is a finite supply?

By rethinking how the product is likely to be made, the product can often be redesigned in a more responsible way.

3. Reduce

Reduction is often the result of having re-thought a design or action. Materials and energy are saved due to efficient manufacturing practices and the use of clever design, incorporating sustainable materials.

- Modern materials that are lighter and stronger than traditional ones have contributed to the miniaturisation of products, saving material and energy in manufacture and use.
- Reducing the complexity or number of parts a product uses and reducing the number of different materials in a product makes recycling easier.
- In factories, schools and hotels, fitting motion sensitive lighting and smart heating systems can significantly reduce energy usage.
- Many large companies employ staff to conduct 'energy walks' to turn off unused appliances and lights and to ensure windows and doors are shut to conserve heat.

4. Reuse

Reusing products multiple times for the same purpose is also known as **primary recycling**. Reusing a product in a different way from the one it was designed for is known as **secondary recycling**.

The classic glass milk bottle is reused many times before it reaches the end of its useful life, as which point it is recycled. A plastic milk bottle, however, is intended to be used only one, although it can have many different subsequent uses.

Donating to and buying from charity shops extends the life of products and in recent years there has been a resurgence of in products having second lives, thanks to websites such as eBay, Freecycle or Gumtree.



It is also becoming popular for furniture and other household items to be **upcycled** with a coat of paint and some minor repairs or adaptations, extending their useful life by many years.

5. Repair

Being able to repair a product when it is broken or worn is a way of extending its life and delaying the purchase of a new one. Repairing is a positive option over replacement as it means that only some parts of the product are replaced. This creates jobs for skilled people who conduct repairs and stimulates a spare parts market.

Unfortunately, repairing products has become harder over years. Growing number of products are not design to be repaired. There are a number of reasons why items may be designed this way, but it is usually because they are cheaper to replace than repair. Some products, especially modern electronic products, are designed to last only a few years as technology dates quickly and older products will be superseded by newer, faster, more efficient models. This is called **planned obsolescence**.

6. Recycle

Tertiary recycling, although a very important stage, is lower down the hierarchy of preferred options because most materials that are recycled this way tend to be of lower quality than the original material. It takes a lot of energy to recycle materials.

This form of recycling requires the reprocessing of the material and in many cases involves chemicals and/or heat to recover the recycled materials. In an ideal world, tertiary recycling would remove all recyclable materials from our household waste so that only biodegradable materials would be left. Only very few parts of the world are set up to cope with this level of processing.

7. Sustainability

Our planet has to provide all of our basic human needs, such as food, shelter and warmth.

Designers now have a much better understanding of which materials are sustainable and which are not.

The general principle is that resources fall into two categories:

Finite resources – are ones which are in limited supply or cannot be reproduced.

Non-finite resources – are ones which are in abundant supply and are unlikely to be exhausted.

8. Recyclable materials

Once all useful and recyclable materials are removed, the majority of the remaining waste is organic matter and can be processed in one of two ways; '**Recover**' or '**Rot**'. Food waste and garden waste can be processed at a high temperature and turned into compost. The waste can also be buried in **landfill** sites where the resulting methane gas from the rotting matter is collected and burned and used to generate heat or electricity in the same way.

Year 9 – Food Technology (Hospitality and Catering)

Malnutrition (Deficiencies/Excesses & Effects on Health)

Malnutrition	There is a link between a poor diet, and the risk of developing some diseases. This includes the risk of: *cancer; *Coronary heart disease (CHD); *bone health; *anaemia. Having intakes of energy and/or nutrients below or in excess of needs for long periods of time can affect health. The risk of malnutrition is increased by: *increased requirements for some nutrients *restricted range of foods; *reduction in available income; *very low income; *medical conditions; *psychological conditions.
Undernutrition	Worldwide, Kwashiorkor and marasmus are two common diseases caused by a lack of protein and energy. Fat soluble vitamins (A, D, E and K) are stored in the body so it takes time for deficiency diseases to develop.
Diet and Cancer	The World Cancer Research Fund has released nine cancer prevention recommendations *Be a healthy weight *Move more *Avoid high-calorie foods and drinks *Enjoy more grains, veg, fruit and barley. Limit intake of red meat and avoid processed meat *Don't drink alcohol *Eat less salt *Don't rely on supplements. Breastfeed your baby.
Diet & Coronary Heart Disease	It is believed that 80% of CHD and strokes could be prevented by changes to lifestyle factors, such as diet, physical activity and smoking. Changes to the diet to reduce the risk of CHD include: *increasing oily fish intake; *reducing salt intake; *increase fruit and vegetables; *decreasing alcohol consumption.
Bone Health	Calcium is important for strong bones. Vitamin D is needed for calcium to be absorbed from food.
Anemia	Iron is vital for making red blood cells. Iron from the diet forms haemoglobin, which carries oxygen in the blood. Anaemia develops if the body's stores of iron are too low.
Obesity	People who are obese are more likely to suffer from CHD, type 2 diabetes, gall stones, arthritis, high blood pressure and some types of cancers, i.e. colon, breast, kidney and stomach.
Inactivity	It is also important that the amount of time being sedentary is reduced. Over time, sedentary behaviour can lead to weight gain and obesity, which can increase the risk of developing chronic diseases in adulthood.

Food Labelling

Packaging Information	Information on the labels of pre-packed food and drink products can be legally required or just for consumer information. Legally required information is: country of origin and place of provenance (where an ingredient is from); date mark; list of ingredients (including additives and allergens); name and address of the manufacturer, packer or seller; name of food or drink; nutrition information; storage and preparation instructions; weight or volume. Consumer information (not a legal requirement) front-of-pack nutrition label; price; serving suggestions/image.
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Functional Characteristics of Ingredients

Selecting Ingredients	Ingredients are chosen for a number of reasons, *to add flavour, colour or texture *to provide a particular function, e.g. to thicken *to provide nutrients or change the nutritional profile of a dish, e.g. to increase fibre *to extend the shelf life, e.g. vinegar for pickling or chemical preservatives *cost and availability, e.g. fruit in season *to satisfy a need to buy food with a certain provenance, e.g. Red Tractor.
Adding Flavour, Colour or Texture	• Fresh and dried herbs and spices can be added to dishes to provide flavour and replace the salt in some dishes, • Fruit, vegetables, herbs and spices can all be used in recipes to add colour. • Nuts, seeds, grains, fruit and vegetables can be added to recipes to provide texture. • The cooking method and cooking time can impact the texture, e.g. steaming or microwaving vegetables quickly can retain their colour, flavour and firm texture. • Equipment used to process food can impact the texture - blending soup for a smoother texture.
Ingredient functions in recipes	browning , e.g. flour in a bread roll (dextrinisation); raising , e.g. yeast in bread (aeration); setting , e.g. scrambled eggs (coagulation); thickening , e.g. flour in a roux sauce (gelatinisation).
Raising Agents	mechanical , e.g. beating, creaming, rolling and folding, sieving, whisking; chemical , e.g. baking powder, baking powder, self-raising flour; biological , e.g. yeast. Different foods may use one or more of these to achieve a desirable end result.
Tenderisation	Mechanical tenderising – a meat cleaver or meat hammer may be used to beat the meat. Cutting into small cubes or mincing can also help. Chemical tenderisation (marinating) –the addition of any liquid to flavour or soften meat before cooking.

Glossary

Key Terms	Aeration: Incorporating air into a mixture. Caramelisation: The chemical change of heated sucrose (sugar) to caramel, which produces flavour and browning. Coagulation: The irreversible denaturation of protein molecules to thicken and set. Denaturation: A change in the structure of protein molecules, resulting in their unfolding. Dextrinisation: The reaction of dry heat on the surface of food which changes starch to dextrin, e.g. toast. Gelatinisation: The process of thickening which takes place when a mixture of starch and liquid is heated. Shortening: The effect caused when fat is rubbed into flour (rubbing in method - crumble. The fat coats the flour particles, waterproofing them to prevent gluten formation. Allergen: An ingredient that may cause an adverse reaction to food. Back-of-pack labelling: Is legally required and can help consumers make healthier choices. Front-of-pack labelling: Is voluntary but must provide certain information and can use red, amber and green colour coding. Use-by-date: Relates to the safety of the food. Food must be eaten by this date. Best-before-date: Relates to the quality of the food. Food may still be eaten beyond this date.
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ART - Skill Workshops

<u>Formal Elements</u>	<u>Colour Theory</u>	<u>Tips, Tools & Techniques</u>	<u>Keywords</u>
Line A mark that connects two or more points. These can be straight, curved, short or long. Tone The lightness or darkness or something. For darker tones use a higher grade B pencil. Colour Colour is what you see when light reflects of something. Texture How something looks or feel e.g. fluffy, rough, smooth etc. Visual Texture - implied sense of texture that the artist creates through the use of various artistic elements such as line , shading, and colour. Physical Texture - texture you can actually feel with your hand Pattern A symbol, shape or colour that repeats. Man-made patterns are designed by humans, natural patterns are formed by nature. Shape/Form Shape is 2D e.g. rectangles. Form is 3D e.g. cubes, spheres etc.	Primary Colours Colours that can't be mixed/ made from other colours e.g. red, yellow and blue. Secondary Colours Colours that can be made by mixing two primary colours. Red + Blue = Purple Yellow + Blue = Green Yellow + Red = Orange Tertiary Colours Colours that can be made by mixing a primary and secondary colour together e.g. Blue + Green = Turquoise. Complementary Colours Colours that are opposite each other on the colour wheel. Blue & Orange Red & Green Purple & Yellow Analogue/ Harmonious Colours Colours that are next to each other on the colour wheel e.g. Red, red-orange and orange. Tints/ Shades Tint - Adding white to a colour to make it lighter. Shades - Adding black to a colour to make it darker.	Blender Stick A paper stump that allows you to blend tones. Blending The smooth transition between tones. Tints Adding white to a colour to make it lighter. Tones Adding black to a colour to make it darker. Continuous Line Drawing an entire piece of work without taking your pen/pencil off the page until it is completely finished. This often makes the artwork look more gestural/ abstract. Poly-Tile Printing Carving/cutting into the surface. Carved/cut areas remain untouched by ink, only recessed area transfers colour. Oil Pastel Printing Type of mono-print (mono = one) in which oil pastels are transferred in the printing process. Card Relief Three dimensional elements are raised on a flat base. Impasto Paint is laid on an area of the surface in very thick layers, usually thick enough that the brush or painting-knife strokes are visible.	Proportion The size and relation of objects to one another. Using the grid-method is one way of helping you draw using accurate proportions. Abstraction Does not attempt to focus on accurate representation of reality but focuses rather on shapes, colours and gestural marks. Realism Accurate representation of reality e.g. a chair looks like a chair. Portraiture The art of drawing or taking a photo of a person. Landscape A piece that depicts a view of some sort e.g. mountains, the sea, fields, woodlands, buildings etc. Still Life A piece that depicts objects or something that is generally static (does not move).

Drama Term 3

Blood Brothers

Plot

⇒ Russell's BB revolves around twin boys (Mickey and Edward) who are separated at birth and brought up in completely different environments in the city.

⇒ The play, set in the 1960s, is divided into two acts, with songs throughout.

⇒ Mickey is brought up with his seven older siblings by his struggling single mother, Mrs Johnstone. His twin brother, Edward, however is brought up as the only child of the wealthy Lyons family, who live nearby, after Mrs Lyons persuaded Mrs Johnstone to hand over one of her twins at birth.

⇒ Mickey and Edward don't meet each other until they're seven years old, but immediately become best friends and blood brothers. The bond continues when the boys are teenagers and both live in the countryside, despite them both being in love with Mickey's neighbour Linda.

⇒ However, as they get older, the huge difference in their backgrounds pulls them apart and eventually leads to their tragic deaths.

⇒ Written during a period of huge changes in society and politics, *Blood Brothers* draws the audience's attention to the detrimental effect that social inequality can have on people's lives.

Useful vocabulary: Contrast Multi-role Dramatic Irony Tragedy Dole Prejudice Manipulates Consequences Vulnerable Foreboding Foreshadow Judgemental Sympathy Stigmatised Monologue Prologue Dialogue Transitions Cyclical Cautionary

Willy Russell—The Playwright

Born into a working class family, Russell grew up on a council estate in Liverpool. His father worked very hard in a variety of jobs including mining and other laborious occupations. His mother worked as a nurse. This echoes the situations of Mickey and Linda, struggling to get by during a difficult period. His plays largely focus on the problems faced by working class people. He writes a lot about social divides and how someone's class can affect who they are and the opportunities they are given.

Acting Style

Epic Theatre is a technique used in theatre created by Bertolt Brecht to remind the audience they were not watching real life. This style is shown clearly through the Narrator, who breaks the fourth wall and speaks directly to the audience, reminding us that this is theatre, a representation of events. He asks the audience direct questions and multi-roles, another Brechtian technique. Songs are also used to remind the audience that the play is not real. Adults play the children (protagonists Mickey and Edward) to further emphasise this.

Themes

Nature Vs Nurture
Money
Social Class
Fate
Superstition
Destiny / Fate
Friendship
Coming of age
Identity
Gender
Class Divide

LEARNING AIMS

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Terminology	Definition
Foreshadowing	Warning or indication of a future event
Pathos	Appeal to emotion
Multi-role	One actor playing a two or more roles
Motif	A repeated idea throughout the story
Dialogue	Conversation between two or more characters
Tension	Dramatically used to build suspense
Humour	Language used for amusing/comic effect
Dramatic Irony	When the audience know something that the characters do not
Songs	Contain lyrics that are set to music to give audience more information
Stage Directions	Instructions indicating how the actor should move/speak
Cyclical Structure	Finishes a similar way to how the text began
Prologue	A separate introduction that reveals some of the plot
Atmospheric	A distinctive mood/feel to the scene
Parallels	Similarities in the text—almost a replication of events
Tragedy	A play dealing with tragic events and having an unhappy ending for main characters

A—Examine Professional practitioners' performance work
L2 Distinction—Assess the stylistic qualities of practitioners' work using considered examples to show how roles, responsibilities and skills contribute to creative intentions and purpose across three performance styles.

B—Explore the interrelationships between constituent features of existing performance material
L2 Distinction - Explain the interrelationships between processes, skills and approaches used by practitioners, with considered reference to examples of repertoire used to demonstrate how they contribute effectively to performance work.

Context

Place
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 things went from bad to worse. Margaret Thatcher was Prime Minister at the time and was arguably to blame for some job losses.

Society
There was a large gap between working and middle class in Britain, even before the industrial decline. The Johnstones and Lyons' are class stereotypes. A lot of working class people struggles financially, even if they were in work or on the dole. The Middle class were largely unaffected by the industrial decline, as they had jobs like teaching or accountancy. There was also a **class divide** in education, whether you went to a public and private schools often decided your job in the future.

Family
Families were expected to have a 'nuclear' structure- a mother, a father and their children. Single-parent families like Mrs Johnstone were less common and were frowned upon by many.

Five Key Acting Skills

Facial Expressions - How can we show emotions through our faces?

Eye contact, eye brows, straight, emotions, gritting teeth, tense, relaxed, wrinkled, creased, staring, twitching.

Voice - How can we use our voice in performance? Tone, pitch, pace, emotion, volume, projection, dialogue, dialect, accent, intonation, whistling, SFX, interjection.

Body language - How can we use our bodies to help us create performance? Posture, blocking, positioning, front on, side on, emotions, age, open or closed.

Gestures - These are movements with meaning, how can we use them in performance? Hands, arms, speed, clicking, rubbing, waving, mannerisms.

Movement - How can movement be used to create performance? Speed, pace, acceleration, gait, mannerisms, special awareness, stage presence.

Key Terminology

Script - The written words and stage direction which are spoken and performed in a play. A script will be written by a writer and then given to a director to create a performance.

Director - This is the person who is in charge of the actors and performers. The director will tell the actors how they want them to perform and move in each scene. They will block the performance.

Blocking - When creating a performance you must first plan where all the actors are going to be standing and moving to on the stage. You must also plan what set and props are going to be used in your performance. This is called Blocking.

Stage Direction - Text in a script which tells you what you need to be doing while performing. Some scripts may have more stage directions than others. Some directors may also decide not to use all of the stage directions because they have their own ideas for what the performers should be doing.

Characterisation - Using a variety of skills, improvisation techniques and background information to become your character. These skills are your 5 key acting skills. It is important you fully understand the character you are performing. You MUST remember, you are no longer yourself when acting. You become someone else.

Performance Discipline - Maintaining extremely high and professional levels of focus and concentration throughout rehearsals and performance. This involves being on task at all times, not laughing or giggling when you are acting. It is crucial to stay focused when performing.

Ensemble - A group of performers all working together in a performance.

Freeze Frame - When a scene 'freezes' for a moment to allow the audience to really explore the moment. It is like pressing pause on live action.

Tableaux - A collection of still images which create a performance. It is like looking through a photo album.

Immersive theatre - Audience are included in the performance but don't know what is going to happen. Actors may talk to or ask the audience questions about what is happening in the performance.

Example Self-evaluation

STRENGTH During my performance, I wanted to show how my character was really angry with another character. To do this, I scrunched my eyebrows together and tilted my head slightly forward, using facial expression to show my annoyance. I also had a very big frown and narrowed whilst making a low pitched noise to display my frustration. This was successful because the audience could clearly see how angry my character was when seeing their friend after having an argument.

AREA FOR IMPROVEMENT During my performance, I wanted to show how my character was really happy to see someone. To do this, I slowly waved my hand and had a slight smile on my face whilst quietly saying 'Hello' in a soft tone. My intention was to show how I was happy but wanted to show it in a subtle way. However, the audience were confused by this and thought that my reaction was too small. If given the chance to perform this moment again, I would make my gestures much bigger, my movements quicker and my facial expressions much more exaggerated so that the audience can see my excitement much more clearly.

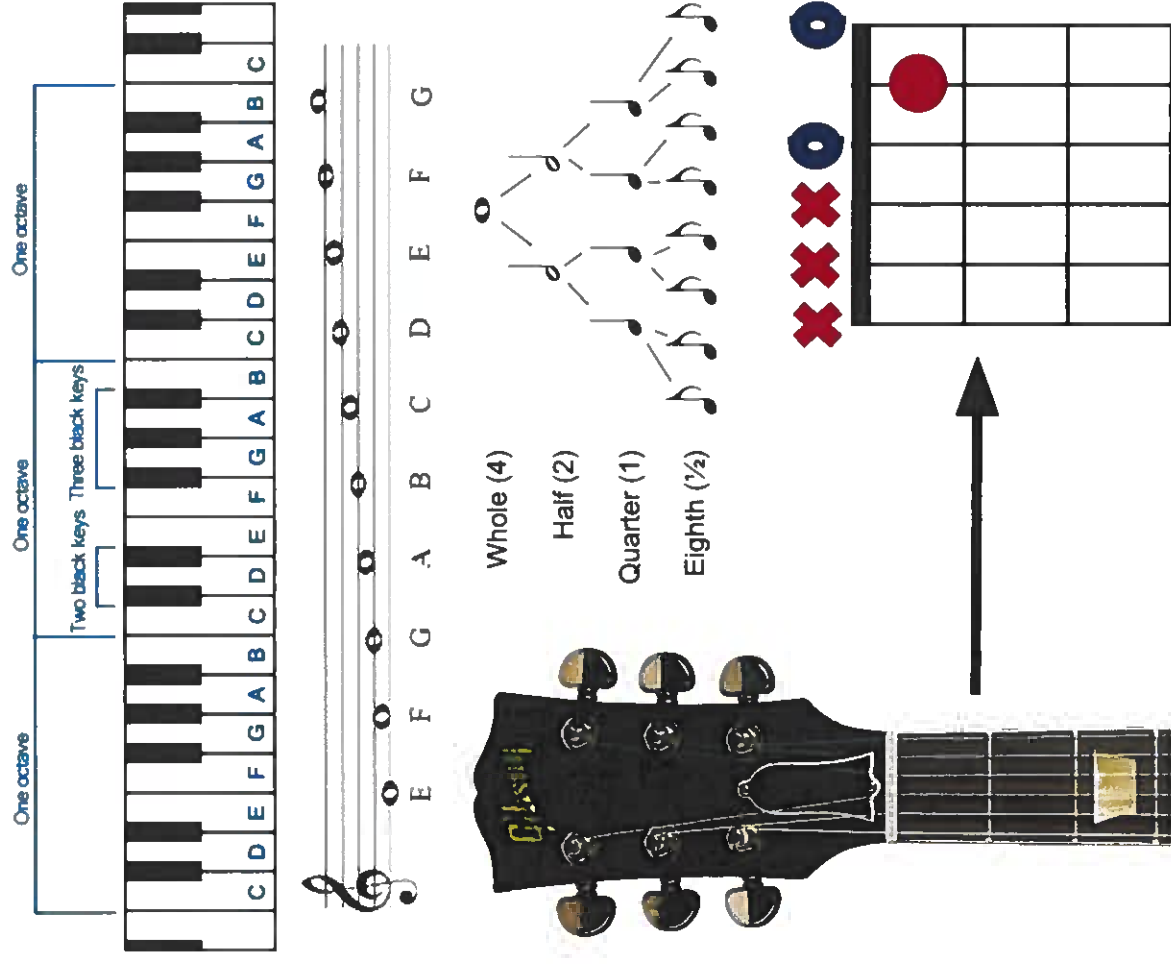
MUSIC - The Elements of Music

Key Terminology

- Conductor** - A person who directs the performance.
- Note** - A singular sound.
- Chord** - A group of three or more notes played at the same time.
- Harmony** - Different notes played or sung together.
- Melody** - A small arrangement of notes that make a tune.
- Scale** - A series of eight notes starting somewhere between A-G.
- Arpeggio** - When you play the 1st, 3rd, 5th, and 8th note of a scale one after each other.
- Rhythm** - The pattern of how notes are played.
- Beat** - The pulse or heartbeat of the music.
- Tempo** - The speed of the music.
- Dynamics** - The volume of the music.
- Octaves** - The jump between the same note going higher or lower on the piano (e.g. lower C to higher C).
- Pitch** - How high or low the notes are played.
- Guitar** - 6-stringed instrument. Can be electric or acoustic.
- Bass Guitar** - Low sounding 4-stringed instrument. Usually electric.
- Piano/Keyboard** - Percussion instrument made up of white keys and black keys.
- Drum Kit** - Percussion instrument made up of drums and cymbals.

Feedback Starters

Positives: *What I thought went well was...*
 Points for improvement: *It would be even better if...*



Year 9 Unit 5 - More Python		
Lesson 1	Write programs that display messages, receive keyboard input, and use simple arithmetic expressions in assignment statements. <pre> 1 print("Enter length of the rectangle: ") 2 length = float(input()) 3 print("Enter width of the rectangle: ") 4 width = float(input()) 5 area = length * width 6 perimeter = 2 * length + 2 * width 7 print("The area of the rectangle =", area) 8 print("The perimeter of the rectangle =", perimeter) Use selection (if-elif-else statements) to control the flow of program execution 1 print("Enter length of the rectangle: ") 2 length = float(input()) 3 print("Enter width of the rectangle: ") 4 width = float(input()) 5 area = length * width 6 perimeter = 2 * length + 2 * width 7 print("The area of the rectangle =", area) 8 print("The perimeter of the rectangle =", perimeter) 9 ~ if area > 20: 10 print("The area is too big.") 11 ~ else: 12 print("The area is not too big.") </pre>	Keywords Algorithm An algorithm is a list of instructions, used to solve problems or perform tasks. Program A program is a set of operations for a computer to perform. Programming language A programming language is a language that can be used to control a computer. Program translation A translator is a program that converts source code (python) into code that the computer can use. Program execution To execute a program is to run the program in the computer, Interpreter A computer program that directly executes instructions written in a programming language Programming environment A program that contains language specific editors and source level debugging facilities. (Replit.org) Input Data that is entered into or

	Create lists and access individual list items <pre>1 fruit = ["apple", "banana", "pear", "pineapple"] 2 print("The first fruit in the list =", fruit[0]) 3 print("The second fruit in the list =", fruit[1])</pre>	received by a computer Output The information that it displays on a screen or prints on paper as a result of a particular program. Variables A variable is a value that is stored by a computer. Assignment A statement in computer programming that is used to set a value to a variable. Operators An operator is a specific mathematical or logical action or process. Expressions A combination of values and functions that are combined to create a new value Integer and string type Integer is a numeric value, while string is a character value represented in quotes. Execution To execute a program is to run the program in the computer Selection Where a section of code is run only if a condition is met
Lesson 2	Perform common operations on lists or individual items <pre>1 fruit = ["apple", "banana", "pear", "pineapple"] 2 print("The first fruit in the list =", fruit[0]) 3 print("The second fruit in the list =", fruit[1]) 4 fruit.append("cherry") 5 fruit.insert(1, "grape") 6 fruit.pop(3) 7 fruit.remove("apple") 8 fruit.sort() 9 print(fruit)</pre>	

Lesson 3	Use iteration (while statements) to control the flow of program execution <pre> 1 fruit = ["apple", "banana", "pear", "pineapple"] 2 exit = False 3 ~ while exit == False: 4 print("Enter the next fruit or x to exit: ") 5 nextFruit = input() 6 ~ if nextFruit == "x": 7 print("Goodbye!") 8 ~ else: 9 fruit.append(nextFruit) 10 print(fruit) </pre> Perform common operations on strings or individual characters <pre> 1 print("Enter the first piece of text: ") 2 text1 = input() 3 print("Enter the second piece of text: ") 4 text2 = input() 5 print("The first letter in text1 = ",text1[0]) 6 print("The second letter in text2 = ",text2[1]) 7 print("Text1 is ",len(text1), "letters in length.") 8 print("Text2 is ",len(text2), "letters in length.") 9 text2 = text2 + " " + text1 10 print(text2) </pre>	Relational operators Relational operators compare numeric, character string, or logical data. The result of the comparison, either true (1) or false (0). Examples include =, > < and <>. Logical (or Boolean) expressions An operation involving the use of logical functions, such as AND or OR. Conditions Conditions are statements which evaluate if something is true or false. Multi-branch selection Where the flow of a program can go in many different directions depending on a particular value. Iteration A sequence of instructions or code being repeated until a specific end result is achieved. Flags A flag is a variable that acts as a signal within a program.
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1 print("Enter the first piece of text: ")
2 text1 = input()
3 ~ for i in range(0,len(text1)-1):
4     print(text1[i])

1 print("Enter the times table you wish to see: ")
2 timesTable = int(input())
3 ~ for i in range(1,13):
4     print(i,"*",timesTable,"=",timesTable*i)
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Key definitions:

- Sexual consent:** The giving of permission by a person to engage in any form of sexual activity including penetrative and oral sex.
- Affirmative consent:** Consent is only given when a person agrees verbally to engage in sexual activities including penetrative and oral sex.
- Coercion:** The action or practice of persuading someone to do something they wouldn't normally do or something they don't want to do by using force or threats.
- A person who is minor:** A person who is under the age of 18 and legally considered a child.
- Contraception:** Methods that are used to prevent pregnancy from occurring during sexual activity.
- Hormonal methods:** Contraceptive methods with the use of hormones to prevent pregnancy, usually used by women only.
- Barrier methods:** contraceptive methods which prevent pregnancy by stopping the sperm from reaching the egg.
- Combination methods:** Contraceptive methods which use both hormonal and barrier methods to prevent pregnancy.
- Natural Methods:** contraceptive methods which do not use hormones or barriers, mostly focused on fertility awareness.
- Pornography:** Printed or visual material containing the explicit description or display of sexual organs or activity, intended to stimulate sexual excitement.
- Soft Porn:** Films, magazines, photographs etc. that show sexual images such as nudity but not sexual act.
- Hardcore Porn:** Films, magazines, photographs etc. that shows sex in a very detailed way, or shows very violent or unpleasant sex.
- Child Pornography:** Sexually explicit material depicting anyone under the age of 18.
- Revenge Porn:** Revealing or sexually explicit images or videos of a person posted on the internet, typically by a former sexual partner, without the consent of the subject and in order to cause them distress or embarrassment.
- Sexting:** Sending sexually explicit messages or pictures via mobile phones, instant messaging or email.

Year 9 Knowledge Organiser – Intimate Relationships

Types of Contraception			
Birth control	How to use	Prescription Needed	Protects against STIs
Oral Contraceptive	Take one pill every day as directed	Yes	No
Injection	Get injections every three months	Yes, injection given in health care providers office	No
Female condom	Insert every time before sex	No	Yes
Male condom	Partner must wear every time during sex	No	Yes

Consent is:

- Freely given. It's not okay to pressure, trick, or threaten someone into saying yes.
- Reversible. It's okay to say yes and then change your mind — at any time!
- Informed. You can only consent to something if you have all the facts.
- Enthusiastic. You should do stuff you WANT to do, not things people expect you to do. If someone doesn't seem enthusiastic stop and check in.
- Specific. Saying yes to one thing (like going to the bedroom to make out) doesn't mean you're saying yes to other things (like having sex).

Consent cannot be given when:

- When a person is drunk or high, to the point that they are unable to speak or look after themselves.
- Asleep or Passed Out – if they are not conscious they are unable to agree to any sexual activity. If someone passes out whilst engaging in sexual activity – STOP!
- They are Underage – Legally a person under the age of 16 cannot give consent to any sexual activity.
- Mental disability or learning difficulties which mean they are unable to fully understand what they are consenting to.

Pornography Laws in the UK

- It is legal to watch pornography in the UK as long as it doesn't feature under 18's, sex with animals, torture, scenes of rape or sexual assault, scenes which are violent to the point of life threatening or likely to cause serious harm.
- The legal age to buy pornographic material is 18, be this magazine, DVD's or internet access. The internet tries to prevent under-age access using credit cards or disclaimers.
- Under 18's who film or take sexual pictures of themselves or others can be charged with child pornography offences which can lead to prison sentences of up to 10 years. Even if all involved agreed.
- It is illegal to watch pornography with an under 18, this is considered a form of abuse.
- It is illegal to make and/or distribute pornographic photographs or films without all participants knowledge and consent. This can lead to up to 2 years in prison.

Ways in which pornography can distort views of relationships and sex

- Sex ends when the man ejaculates and orgasms.
- Women orgasm every time they have sex.
- People use insults and abusive language when having sex.
- Everyone wants to have sex all the time.
- Sex is an aggressive act of dominance of one partner over another.
- Women are portrayed as bored and sexually frustrated.
- People want to have sex with more than one person at a time.
- External ejaculation is expected and common.
- Anal Sex is common and popular amongst heterosexual couples.
- Sex is good every time.
- Penises are large (over 6inches)
- Sex is all about what men want and men are in control.
- Women are expected to dress up and wear make up for sex.
- Sex is loud.
- Consent to sex means all sex acts.
- You must look and dress a certain way to be considered sexy

Healthy Relationships	Unhealthy Relationships
- You know when you're in a healthy relationship because you feel happy to see and spend time with certain people - they could be members of your family, your friends, your work mates or even a romantic partner. - No relationship is ever perfect, and you will have moments when mine disagreements will rise to the surface causing frustrations with others - there are many factors that contribute to the development and maintenance of have your relationships including commitment, trust, respect and responsibility, What is needed to keep a relationship strong? - Building a relationship on friendship and being a good team. - Being realistic in your expectations and putting in effort. - Communicating well - Talking constructively about any issues when they first arise so that bigger problems don't develop. - Having good support networks - Having friends and family around you to help when life is tough.	The signs of an unhealthy relationship are easy to spot. - People stop communicating, become less close, argument frequently and show less love and respect for each other. - There are many reasons that a relationship might breakdown. Often it has to do with the personalities, attitudes and behaviours of the individual. Other causes come from outside the relationship. There are many ways to deal with or improve an unhealthy relationship – we could try listening more to others and become more aware of their needs. We could examine our own behaviour honestly and try to identify aspects of it which is causing conflict with others. However, the best way to improve an unhealthy relationship between partners is by getting advice.

Year 9 PCSHE – Intimate Relationships Topic 3	
Relationships, marriage and family	
Marriage: illegally accepted relationship between two people in which they lived together, or the official ceremony. Cohabitation: another way of saying a couple are living together. This can be formalised with a legal agreement called a cohabitation contract. This outlines the rights and obligations of each partner towards each other e.g. About how you share your property. Civil partnership: A civil partnership is a legal relationship which can be registered by two people who aren't related to each other. They are available to both same sex couples and opposite sex couples. Registering the civil partnership will give you relationship legal recognition. This will give you legal rights, as well as responsibilities. - married couples and civil partners have far more legal rights, responsibilities and protections than cohabitating couples, but marriage is a serious commitment and may not be for everyone. - Cohabitating couples have few rights and protections, but cohabitating can often be a way for couples to get to know one another and build stronger relationships. cohabitation agreements can be a good way to enshrine rights and protections if a couple decide they do not want to marry or form a civil partnership. - Stable partners have similar rights and protections to marriage couples but are restricted in the following ways: civil partnerships are not legally recognised in all countries, 'adultery', cannot be used as a reason for dissolving the relationship. - same sex couples can marry in England, Scotland, Wales and Northern Ireland. - Forced marriage is a criminal offence Attitudes towards marriage/civil partnerships <i>Why might people choose a marriage/civil partnership?</i> - To make a lifelong commitment - Love - Societal expectations - Family expectations <i>Why might people choose not to marry/form a civil partnership?</i> - Independence - Divorce rates - Potential cost - Religious connotations	

On-Screen Relationships	
<i>Why aren't there many examples of healthy and realistic relationships in TV, film and online?</i> - Romantic relationships in the media tend to be over dramatized to make them interesting and more exciting to watch - They are often a relationship has to be portrayed in a very short amount of time, so things move very quickly - People on reality TV possibly have other motives and will act differently because they know they're being watched - Casting can often be limited - There are limits to what can be shown on TV and film - They're usually designed for entertainment rather than to provide a public health message or education. <i>What impact might this have on how young people think about their own relationships?</i> - It may cause inaccurate expectations about how quickly relationships should develop - It may lead to people accepting arguments/breakups as a typical part of relationships - It could possibly desensitise to issues such as cheating - It could lead to lowered self esteem and concerns about body image compared to celebrity culture - It may lead to individuals believing they are only worthwhile if in a relationship - There are very few models of what healthy relationships look like. <i>Who are these representations of relationships appropriate for?</i> Film, DVD and online classifications can help identify what viewing is appropriate for your age range. Some films, TV programmes shown after 9:00 PM, or online content aimed at older viewers are more likely to have more graphic representations of relationships and may focus on 'grittier' storylines which represent unhealthy relationships.	

Year 9 PCSHE – Healthy Lifestyles Topic 4

Choices about Diet and Exercise What influences choice about diet and exercise: Family, friends, celebrities, media, social media, NHS guidelines, advertising campaigns. Facts: - The NHS recommends five portions of fruit and vegetables a day. - Eating too much of anything can be bad for health and highly processed meats can have a negative health effect, for example the Department of Health and Social Care suggest that there is a chance that consuming processed red meat can increase the risk of bowel cancer - Children and young people (aged 5-18) should engage in moderate-to-vigorous intensity physical activity for an average of at least 60 minutes per day across the week. This can include all forms of activity such as physical education, active travel, after-school activities, play and sports Diet: There is a general consensus that there are some foods people should eat more of/choose more often: - Fruit, Vegetables, Beans, Pulses, Eggs, Fish, Other protein There is a general consensus that there are some foods people should eat less of/choose less often: - Foods high in salt - Foods high in sugar - Highly processed food Some people might also follow very specific diets for medical reasons, under the guidance of a health of a professional. For example, some people are unable to eat certain foods due to allergies, such as to gluten, or peanuts.	Healthy Sleep What can cause problems with our sleep? - Medical issues - Technology - Hunger - Stress - Mental Health Issues - Your bed - Clutter and messy rooms - Napping and lie ins Consequences of sleep deprivation: - Emotional Affects • Irritability • Mood Swings • Fatigue / Tiredness • Lack of Motivation • Depression - Physical Affects • High Blood Pressure • Reduced Sex Drive • Lower Immune system • Disrupt hormone regulation • Higher risk of type 2 diabetes - Cognitive effects • Forgetfulness • Clumsiness • Difficulty focusing Tips for a good night's sleep: 1. Routines – set a routine which your body can recognize is a wind down for sleep. 2. Tech free bedrooms – stop using technology such as tablets and phones 2 hours before bed or use a blue light filter. 3. Clutter free bedrooms – Keeping your bedroom clutter free and tidy and help make the room feel calmer and more relaxing. 4. Reduce stimulant food intake – foods and drinks which contain a lot of sugar and caffeine can impact your sleep so try not to consume too much after 3pm. 5. Temperature - the suggested bedroom temperature should be around 18 degrees Celsius .	Dental Health Cosmetic versus dentistry for health 1. Dental check-ups, fillings to treat decay, the removal of decayed teeth or wisdom teeth and root canal treatments are all examples of dentistry for health. 2. Veneers and the replacement of existing amalgam fillings with white fillings are usually cosmetic treatments. Amalgam fillings do sometimes need replacing if there is decay underneath them or if they are defective, however if amalgam fillings that are in good condition are replaced this may provide unnecessary risk to the tooth as additional healthy tooth will be drilled away in the process. Similarly, veneers require the filing down or cutting away of part of the tooth in order to be applied, it is an irreversible process and veneers can require replacement due to cracking, wearing down or loosening. 3. Braces, crowns, scale and polish treatments and whitening treatments are sometimes cosmetic procedures but are also sometimes treatments covered by the NHS as part of dentistry for health. Treatment: • You are entitled to free NHS dental care until 19 and in full-time education. However, cosmetic procedures will incur a cost that is not covered by the NHS. • The only safe place to receive cosmetic treatments is from a qualified dental professional. Tooth whitening from beauty therapists, for example in spas or clinics, is illegal and can cause major damage to the mouth.	If you need further support... • Safeguarding team – Mr Ogden, Mrs Jones, Mrs Loveridge, Mrs Aston, Mr Hayward • Parents/Friends • Tutor/Teachers • Outside organisations: • NHS Eat Well: https://www.nhs.uk/live-well/eat-well/ • British Nutrition Foundation: https://www.nutrition.org.uk/healthy/living/lifestyle/teenagers.html • The Oral Health Foundation www.dentalhealth.org 01788 539780 • NHS Choices: www.nhs.uk • NHS Change4Life Sugar Smart: www.nhs.uk/change4life/food-facts/sugar • NHS Under-18s guide to quitting smoking: www.nhs.uk/live-well/quit-smoking/quitting-smoking-under-18s-guide • Dental Trauma UK: www.dentaltrauma.co.uk (for further information on knocked out teeth)
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