



Haggerston  
School



Year 11 Knowledge Organiser Term 1

2024

Aspiration Creativity Character



# Knowledge Organiser - Contents

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# Term 1



Art Periods/ Movements	Characteristics	Chief Artists and Major Works	Historical Events
Baroque (1600–1750)	Splendor and flourish for God; art as a weapon in the religious wars	Reubens, Rembrandt, Caravaggio, Palace of Versailles	Thirty Years' War between Catholics and Protestants (1618–1648)
Neoclassical (1750–1850)	Art that recaptures Greco-Roman grace and grandeur	David, Ingres, Greuze, Canova	Enlightenment (18th century); Industrial Revolution (1760–1850)
Romanticism (1780–1850)	The triumph of imagination and individuality	Caspar Friedrich, Gericault, Delacroix, Turner, Benjamin West	American Revolution (1775–1783); French Revolution (1789–1799); Napoleon crowned emperor of France (1803)
Realism (1848–1900)	Celebrating working class and peasants; <i>en plein air</i> rustic painting	Corot, Courbet, Daumier, Millet	European democratic revolutions of 1848
Impressionism (1865–1885)	Capturing fleeting effects of natural light	Monet, Manet, Renoir, Pissarro, Cassatt, Morisot, Degas	Franco-Prussian War (1870–1871); Unification of Germany (1871)
Post-Impressionism (1885–1910)	A soft revolt against Impressionism	Van Gogh, Gauguin, Cézanne, Seurat	Belle Époque (late-19th-century Golden Age); Japan defeats Russia (1905)



Rembrandt



Canova



Delacroix

Millet



Monet



Van Gogh



Art Periods/ Movements	Characteristics	Chief Artists and Major Works	Historical Events
Fauvism and Expressionism (1900–1935)	Harsh colors and flat surfaces (Fauvism); emotion distorting form	Matisse, Kirchner, Kandinsky, Marc	Boxer Rebellion in China (1900); World War (1914–1918)
Cubism, Futurism, Suprematism, Constructivism, De Stijl (1905–1920)	Pre- and Post-World War 1 art experiments: new forms to express modern life	Picasso, Braque, Leger, Boccioni, Severini, Malevich	Russian Revolution (1917); American women franchised (1920)
Dada and Surrealism (1917–1950)	Ridiculous art; painting dreams and exploring the unconscious	Duchamp, Dalí, Ernst, Magritte, de Chirico, Kahlo	Disillusionment after World War I; The Great Depression (1929–1938); World War II (1939–1945) and Nazi horrors; atomic bombs dropped on Japan (1945)
Abstract Expressionism (1940s–1950s) and Pop Art (1960s)	Post-World War II: pure abstraction and expression without form; popular art absorbs consumerism	Gorky, Pollock, de Kooning, Rothko, Warhol, Lichtenstein	Cold War and Vietnam War (U.S. enters 1965); U.S.S.R. suppresses Hungarian revolt (1956) Czechoslovakian revolt (1968)
Postmodernism and Deconstructivism (1970–)	Art without a center and reworking and mixing past styles	Gerhard Richter, Cindy Sherman, Anselm Kiefer, Frank Gehry, Zaha Hadid	Nuclear freeze movement; Cold War fizzles; Communism collapses in Eastern Europe and U.S.S.R. (1989–1991)



Kandinsky



Picasso



Kahlo



Lichtenstein



Anselm Kiefer



Zaha Hadid

**Self Quiz:**

1. List art periods/movements in chronological order
2. List their characteristics
3. List key artists and major works associated with each movement
4. List historical events which happened during those times

**Practical application of art history:**

1. Create a drawing of your hand in one of the styles you've learned about from this knowledge organiser.
2. Create sketches of your surroundings (room, objects such as chairs, tables, books, your pencil case, etc), people in the room in a different art style.
3. Create a composition on your table (books, stationary, clothing) and sketch it in the style of one of the above mentioned art movements.
4. Every piece of work should be evaluated using art vocabulary. Compare your work to the artists' examples.

ART





Meiosis halves the number of chromosomes	Gametes are made in reproductive organs (in animals ovaries and testes)	Copies of the genetic information are made.
	Cells divide by meiosis to form gametes	The cell divides twice to form four gametes each with single set of chromosomes.
		All gametes are genetically different from each other.

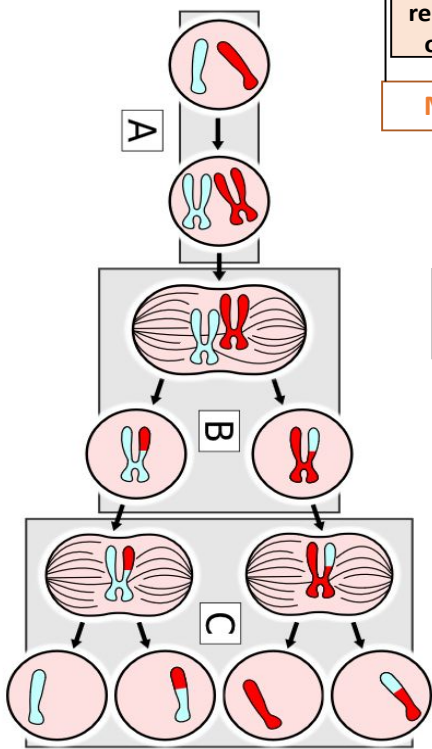
Sexual reproduction involves the fusion of male and female gametes.	<i>Sperm and egg in animals.</i>	Produced by meiosis. There is mixing of genetic information which leads to a variety in the offspring.
	<i>Pollen and egg cells in flowering plants.</i>	
Asexual reproduction involves only one parent and no fusion of gametes.	<i>e.g. cloning of females only in an aphid population.</i>	Only mitosis is involved. There is no mixing of genetic information. This leads to genetically identical clones.

**Gametes join at fertilisation to restore the number of chromosomes**

The new cell divides by mitosis. The number of cells increase. As the embryo develops cells differentiate.

**Meiosis leads to non-identical cells being formed while mitosis leads to identical cells being formed**

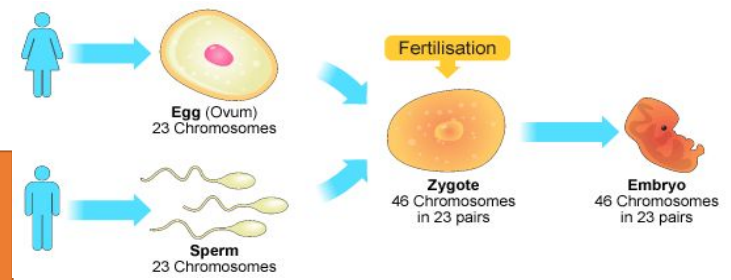
When the protein chain is complete it folds to form a unique shape. This allows proteins to do their job as enzymes, hormones or new structures such as collagen.



**DNA and the genome**

**Sexual and asexual reproduction**

**AQA GCSE INHERITANCE, VARIATION AND EVOLUTION Part 1**



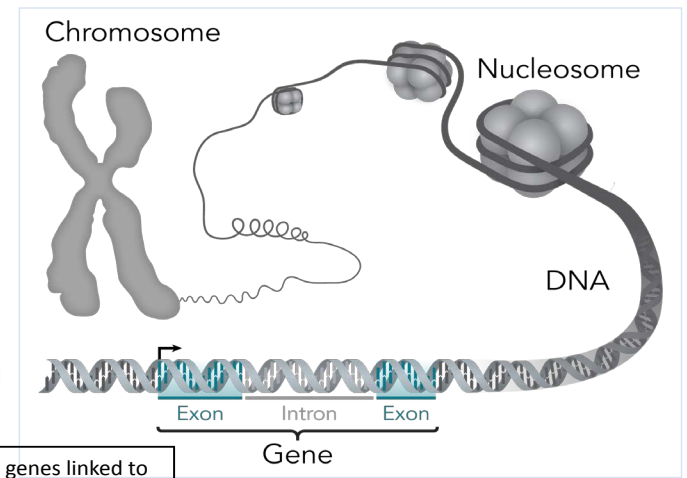
Genetic material in the nucleus is composed of a chemical called DNA.

**DNA structure**

*Polymer made up of two strands forming a double helix.*

Contained in structures called chromosomes. A gene is a small section of DNA on a chromosome. Each gene codes for a sequence of amino acids to make a specific protein.

The genome is the entire genetic material of an organism.



Some organisms use both methods depending on the circumstances	<i>Malarial parasites</i>		Asexually in the human host but sexually in a mosquito.
	<i>Fungi</i>		Asexually by spores, sexually to give variation.
	<i>Plants</i>		Produce seeds sexually, asexually by runners in strawberry plants, bulbs division in daffodils.

The whole human genome has now been studied.	<i>It is of great importance for future medical developments</i>	Searching for genes linked to different types of disease.
		Understanding and treatment of inherited disorders.
		Tracing migration patterns from the past.

BIOLOGY





Very rarely a mutation will lead to a new phenotype which if is suited to environmental change can lead to rapid change in the species.

**Embryo screening:** small piece of developing placenta removed to check for presence of faulty genes

**Gene therapy:** replacing the faulty allele in somatic cells with a normal allele

<b>Embryo screening /gene therapy issues</b>	<b>Economic</b>	Costly and not 100% reliable.
	<b>Social</b>	Not available to everyone (due to cost).
	<b>Ethical</b>	Should only 'healthy' embryos be implanted following screening.

**Embryo screening and gene therapy may alleviate suffering**

**Some disorders are inherited. They are caused by the inheritance of certain alleles**

**One pair of chromosomes carry the genes that determine sex**

	<b>Female</b>	<b>Male</b>
	XX	XY
<b>Gametes</b>	X	Y
X	XX	XY
X	XX	XY

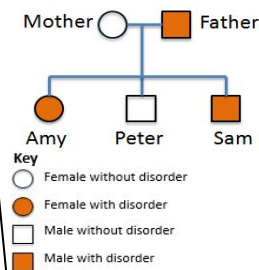
The probability of a male of female child is 50%.  
The ratio is 1:1

**Mutations occur continuously**

**Genetic causes (inheritance)**  
**Environmental causes (condition they have developed in)**  
**A combination of genes and environment**

There is usually extensive genetic variation within the population of a species e.g. hair colour, skin colour, height that can also be affected by environment e.g. nutrition, sunlight.

**Using a family tree:** if the father was homozygous dominant then all of the offspring would have the disorder. He must be heterozygous



**Inherited disorders**

**Variation:** difference in the characteristics of individuals in a population may be due to

**Variation**

**AQA GCSE INHERITANCE, VARIATION AND EVOLUTION PART 2**

**The genome and its interaction with the environment influence the development of phenotypes**

<b>Define terms linked to genetics</b>	<b>Gamete</b>	Sex cells produced in meiosis.
	<b>Chromosome</b>	A long chain of DNA found in the nucleus.
	<b>Gene</b>	Small section of DNA that codes for a particular protein.
	<b>Allele</b>	Alternate forms of the same gene.
	<b>Dominant</b>	A type of allele – always expressed if only one copy present and when paired with a recessive allele.
	<b>Recessive</b>	A type of allele – only expressed when paired with another recessive allele.
	<b>Homozygous</b>	Pair of the same alleles, dominant or recessive.
	<b>Heterozygous</b>	Two different alleles are present 1 dominant and 1 recessive.
<b>Genotype</b>	Alleles that are present for a particular feature e.g. Bb or bb	
<b>Phenotype</b>	Physical expression of an allele combination e.g. black fur, blonde hair, blue eyes.	

Some characteristics are controlled by a single gene e.g. fur colour, colour blindness.

The alleles present, or genotype operate at a molecular level to develop characteristics that can be expressed as a phenotype.

Most characteristics are as a result of multiple genes interacting.

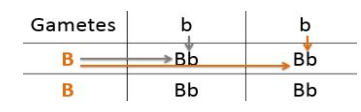
<b>Polydactyly</b>	<b>Cystic fibrosis</b>
Caused by inheriting a dominant allele.	Caused by inheriting a recessive allele (both parents have to at least carry it).
Causes a person/animal to have extra toes or fingers.	A disorder of the cell membrane. Patients cannot control the viscosity of their mucus.

Ordinary human body cells contain 23 pairs of chromosomes

Sex determination

**Using a punnett square (using mouse fur colour as an example)**

<b>Parent phenotype</b>	Black mouse	White mouse
<b>Parent genotype</b>	BB	bb
<b>What gametes are present</b>	In each egg: B, B	In each sperm: b, b



The probability of black fur offspring phenotype is 100%. All offspring genotypes are heterozygous (Bb).

**Crossing two heterozygous mice (Bb)**

<b>Gametes</b>	<b>B</b>	<b>b</b>
<b>B</b>	BB	Bb
<b>b</b>	Bb	bb

The probability of black fur is 75% and white fur 25%. The ratio of black to white mice is 3:1

**Genetic inheritance**

**The concept of probability in predicting results of a single gene cross.**

**Dominant and recessive allele combinations**

<b>Dominant</b>	<b>Recessive</b>
Represented by a capital letter e.g. B.	Represented by a lowercase letter e.g. b.

3 possible combinations:  
Homozygous dominant BB  
Heterozygous dominant Bb  
Homozygous recessive bb

**BIOLOGY**






Over time this results in the formation of new species.

**The theory of evolution by natural selection.**

*Species of all living things have evolved from simple life forms that first developed 3 billion years ago.*

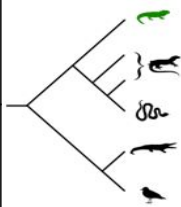
Through natural selection of variants (genotypes) that give rise to phenotypes best suited to their environment or environmental change e.g. stronger, faster. This allows for variants to pass on their genotype to the next generation.



**Classification of living organisms**

**Evolutionary trees are a method used by scientists to show how organisms are related**





Use current classification data for living organisms and fossil data for extinct organisms




Humans have been doing this for thousands of years since they first bred food from crops and domesticated animals.

**Choosing characteristics**

*Desired characteristics are chosen for usefulness or appearance*

Disease resistance in food crops.	
Animals which produce more meat or milk.	
Domestic dogs with a gentle nature.	
Large or unusual flowers.	

Selective breeding can lead to 'inbreeding' where some breeds are particularly prone to disease or inherited defects e.g. British Bulldogs have breathing difficulties.



**A change in the inherited characteristics of a population over time through the process of natural selection.**

**Evolution**

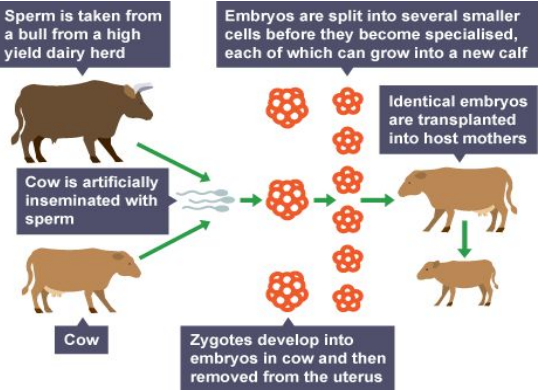
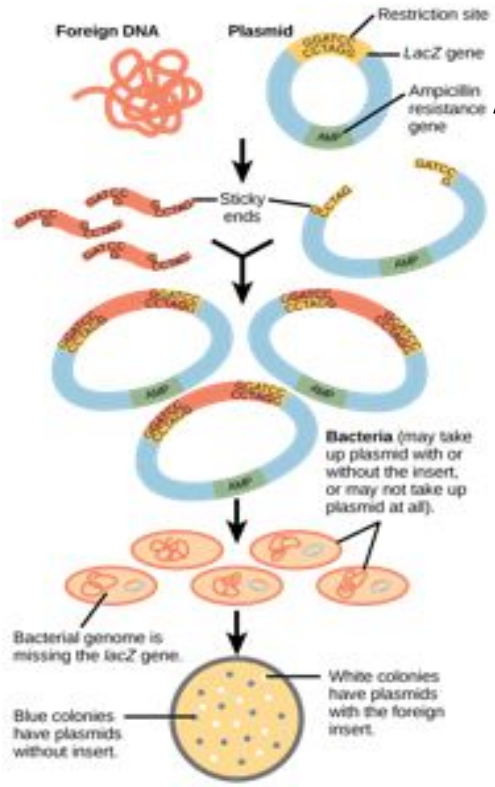
**AQA GCSE INHERITANCE VARIATION AND EVOLUTION PART 3**

**The process by which humans breed plants/animals for particular genetic characteristics**

**Selective breeding**

**Genetic engineering**

Modern medical is exploring the possibility of GM to over come inherited disorders e.g. cystic fibrosis



**Selective breeding**

*Choosing parents with the desired characteristics from a mixed population*

Chosen parents are bred together.

From the offspring those with desired characteristics are bred together.

Repeat over several generations until all the offspring show the desired characteristics.

**Concern:** effect of GMO on human health not fully explored

**Genetic engineering process (HT only)**

1. Enzymes are used to isolate the required gene.
2. Gene is inserted into a vector – bacterial plasmid or virus.
3. Vector inserts genes into the required cells.
4. Genes are transferred to plants/animals/microbes at an early stage of development so they develop the required characteristics.

**Genes from the chromosomes of humans or other organisms can be 'cut out' and transferred to the cells of other organisms.**

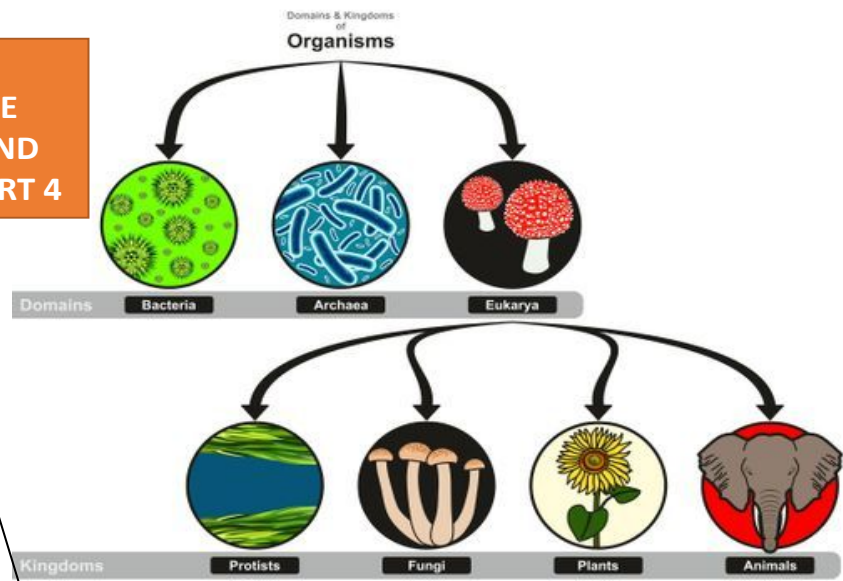
<b>Genetically modified crops (GMO)</b>	<i>Crops that have genes from other organisms</i>	To become more resistant to insect attack or herbicides.
		To increase the yield of the crop.



**Charles Darwin 'On the Origin of the Species' (1859)**  
 Published the **theory of evolution by natural selection**  
 Slowly accepted; challenged creation theory (God), insufficient evidence at time, mechanism of inheritance not yet known.

Other theories e.g. Lamarckism are based on the idea that changes occur in an organism during its lifetime which can be inherited. We now know that in the vast majority of cases this cannot occur.

**AQA GCSE INHERITANCE VARIATION AND EVOLUTION PART 4**



**Classification of living organisms**

The full human classification

<b>Carl Linnaeus classified living things</b>	<b>Kingdom</b>	Animalia
	<b>Phylum</b>	Chordata
	<b>Class</b>	Mammalia
	<b>Order</b>	Primates
	<b>Family</b>	Hominidae
	<b>Genus</b>	<i>Homo</i>
	<b>Species</b>	<i>sapiens</i>

Due to improvements in microscopes, and the understanding of biochemical processes, new models of classification were proposed.

**Carl Woese**  
 3 domain based on **chemical analysis**.  
 Archaea (primitive bacteria), true bacteria, eukaryota.

Organisms are named by the binomial system of genus and species. Humans are *Homo sapiens*

Evidence for evolution

**Fossils and antibiotic resistance in bacteria provide evidence for evolution.**

**Antibiotic resistant bacteria**  
 Mutations produce antibiotic resistant strains which can spread  
 Resistant strains are not killed.  
 Strain survives and reproduces.  
 People have no immunity to strain and treatment is ineffective.

**Extinction**  
 When no members of a species survive  
 Due to extreme geological events, disease, climate change, habitat destruction, hunting by humans.

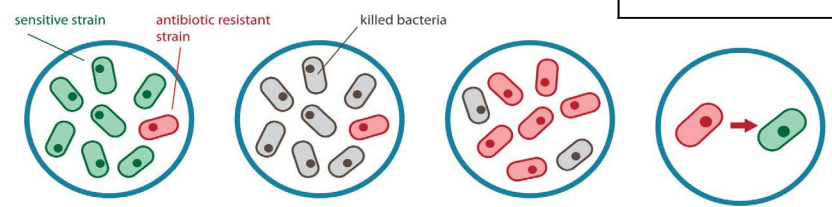


Fossils tell scientists how much or how little different organisms have changed over time.

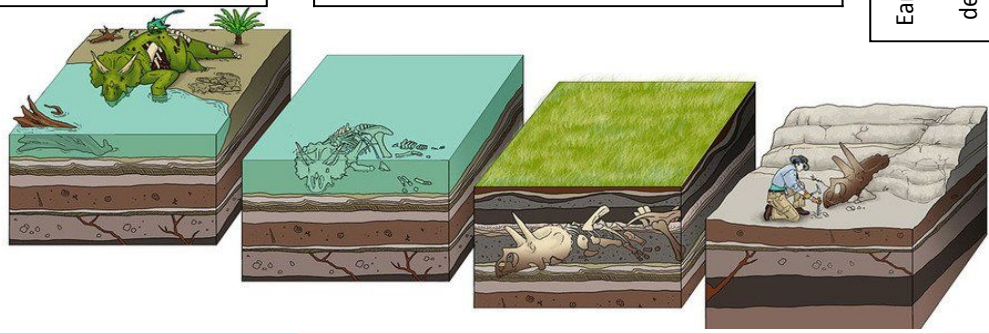
**Fossils**  
 'remains' of ancient organisms which are found in rocks  
 Parts of organism that have not decayed as necessary conditions are absent.  
 Parts of the organism replaced by minerals as they decay.  
 Preserved traces of organisms such as footprints, burrows and rootlet traces.

Early forms of life were soft bodied and few traces are left behind and have been destroyed by geological activity, cannot be certain about how life began.

Evolution is widely accepted. Evidence is now available as it has been shown that characteristics are passed onto offspring in genes.




When there are high number of bacteria, some of them have mutated and become antibiotic resistant strain  
 When antibiotic is added, the sensitive strains are killed. However, no effect against antibiotic resistant strain  
 Now, the antibiotic resistant strain can grow and multiply  
 Moreover, they can transfer drug-resistance to other bacteria and forming a group of antibiotic resistant bacteria





BIOLOGY



**EXAMPLE:** Introduction of grey squirrels to UK increased competition for food for red squirrels. The greys also carry a pathogen that kills reds.

<b>Ecosystem</b>	<b>Environment</b>	The conditions surrounding an organism; abiotic and biotic.
	<b>Habitat</b>	Place where organisms live e.g. woodland, lake.
	<b>Population</b>	Individuals of a species living in a habitat.
	<b>Community</b>	Populations of different species living in a habitat.
Organisms require a supply of materials from their surroundings and from the other living organisms.		

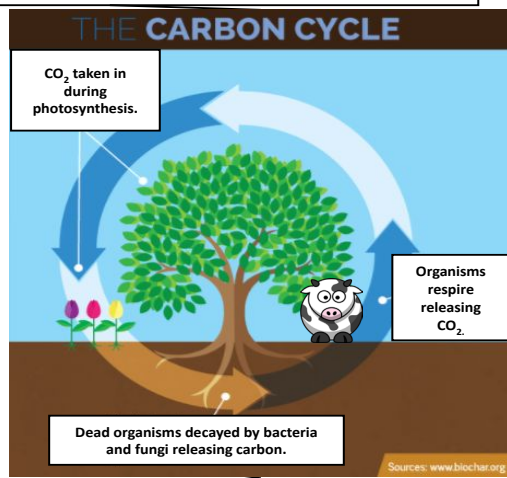
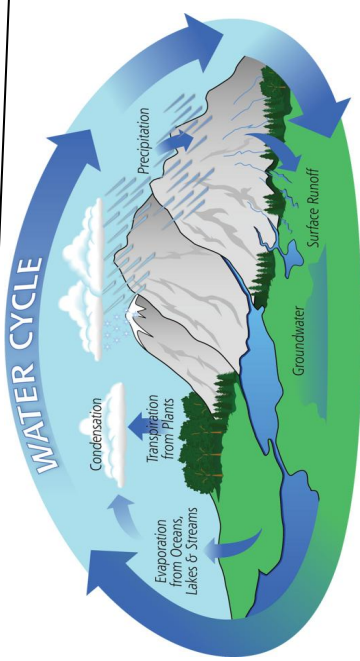
<b>Surviving and reproducing</b>	<b>Competition</b>	Plants in a community or habitat compete with each other for light, space, water and mineral ions. Animals compete with each other for food, mates and territory.
	<b>Interdependence</b>	Species depend on each other for food, shelter, pollination, seed dispersal etc. Removing a species can affect the whole community

**EXAMPLE:** climate change is leading to more dissolved CO<sub>2</sub> in oceans lowering the pH of the water affecting organisms living there.

Farmers optimise conditions for making compost for use as a natural fertiliser.

Bacteria respire when breaking down dead organisms releasing CO<sub>2</sub>.

Anaerobic decay in biogas generators produces methane gas, used as a fuel.



**Decomposition and material cycling**

**AQA GCSE ECOLOGY PART 1**

**Interdependence and competition**

Abiotic	Biotic
<i>Non-living factors that affect a community</i>	<i>Living factors that affect a community</i>
Living intensity.	Availability of food.
Temperature.	New predators arriving.
Moisture levels.	
Soil pH, mineral content.	New pathogens.
Wind intensity and direction.	
Carbon dioxide levels for a plant.	One species outcompeting so numbers are no longer sufficient to breed
Oxygen levels for aquatic organisms.	

**Abiotic and biotic factors.**


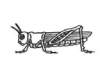


**Adaptations**

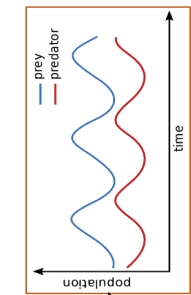
Organisms adaptations enable them to survive in conditions where they normally live.

Adaptations may be structural, behavioural or functional.

Materials are recycled to provide the building blocks for future organisms

Photosynthetic organisms are the producers of biomass for life on Earth




Food chains			
Feeding relationships in a community			
Producer	Primary consumer	Secondary consumer	Tertiary consumer
			
Grass	Grasshopper	Mouse	Owl
All food chains begin with a producer e.g. grass that is usually a green plant or photosynthetic algae.		Consumers that kill and eat other animals are predators and those eaten are prey.	



In a stable community the numbers of predators and prey rise and fall in cycles.

**Factors affecting rate of decay**  
**Temperature, water, oxygen**  
Increase the rate of decay. In enzyme controlled reactions raising the temperature too high will denature the enzymes.

Breakdown of dead organisms releases mineral ions can into the soil.

Adaptations		
Plants	Animals	Extremophiles
Cactus in dry, hot desert	Polar bear in extreme cold artic	Deep sea vent bacteria
		
No leaves to reduce water loss, wide deep roots for absorbing water.	Hollow hairs to trap layer of heat. Thick layer of fat for insulation.	Populations form in thick layers to protect outer layers from extreme heat of vent.



**AQA GCSE ECOLOGY PART 3**

**Biodiversity**

**Biodiversity and the effect of human interaction on the ecosystem**

**Human activity can have a negative impact on biodiversity**



Pollution kills plants and animals which can reduce biodiversity.

<b>Maintain a great biodiversity</b>	<b>Ensures the stability of ecosystems</b>	By reducing the dependence on one species on another for food, shelter, maintenance of the physical environment.
	<b>Future of human species</b>	Many human activities are reduction biodiversity and only recently measures have been taken to stop it.

**Biodiversity is the variety of all different species of organisms on Earth, or within an ecosystem**



Experimental methods are used to determine the distribution and abundance of a species.

<b>Sampling techniques</b>	<b>Quadrats</b>	Organisms are counted within a randomly placed square
	<b>Transects</b>	Organisms are counted along a belt (transect) of the ecosystem.



**Waste, land use and deforestation**

<b>Waste management</b>	<b>Rapid growth in human population and higher standard of living</b>	More resources used and more waste produced.
		Pollution in water; sewage, fertiliser or toxic chemicals.
		Pollution in air; smoke or acidic gases.
		Pollution on land; landfill and toxic chemicals.

**Land use**

<b>Humans reduce the amount of land and habitats available for other plants, animals and microorganisms.</b>
Building and quarrying.
Farming for animals and food crops.
Dumping waste.
Destruction of peat bogs to produce cheap compost for gardeners/farmers to increase food production.

This conflicts with conserving peat bogs and peatlands as habitats for biodiversity and reduce CO<sub>2</sub> emissions.

The decay or burning of peat release CO<sub>2</sub> into the atmosphere.

**Impact of environmental change (Biology HT only)**

<b>Global warming</b>	<b>Levels of CO<sub>2</sub> and methane in the atmosphere are increasing.</b>	Decreased land availability from sea level rise, temperature rise damages delicate habitats, extreme weather events harm populations of plants and animals.

**Large scale deforestation**

**In tropical areas (e.g. rain forest) has occurred to:**  
Provide land for cattle and rice fields, grow crops for biofuels.

Deforestation reduces biodiversity and removes a sink for increasing the amount CO<sub>2</sub> in the atmosphere.

**Scientists and concerned citizens**

<b>Put in place programmes to reduce the negative impacts of humans on ecosystems and biodiversity</b>
Breeding programmes for endangered species.
Protection and regeneration of rare habitats.
Reintroduction of field margins and hedgerows in agricultural areas where farmers grow only one type of crop.
Reduction of deforestation and CO <sub>2</sub> emissions by some governments.
Recycling resources rather than dumping waste in landfill.

Some of the programmes potentially conflict with human needs for land use, food production and high living standards.

<b>Processing data</b>	
<b>Median</b>	Middle value in a sample.
<b>Mode</b>	Most occurring value in a sample.
<b>Mean</b>	The sum of all the value in a sample divided by the sample number.

<b>Environmental changes affect the distribution of species</b>	<b>Temperature</b>	These changes might be seasonal, geographic or caused by human interaction.
	<b>Availability of water</b>	
	<b>Composition of atmospheric gases</b>	

**Example:** Several species of bird migrate from cold winter conditions to warmer conditions closer to the equator.



Subject Content	What students need to learn?
2.1.1 Business Growth	<p>Methods of business growth and their impact:</p> <ul style="list-style-type: none"> <li>Internal (organic) growth: new products (innovation, research and development), new markets (through changing the marketing mix or taking advantage of technology and/or expanding overseas)</li> <li>External (inorganic) growth: merger, takeover</li> </ul> <p>Public limited company (PLC) Sources of finance for growing and established businesses</p>

**Internal (Organic) Growth**

Internal growth occurs when businesses choose to expand using their own initiative to increase sales. This could be:

- Through the creation of new products that have been researched
- Entering into new markets with an already existing product
- Changing the marketing mix (e.g. through advertisement)
- Take advantage of technological advancements to expand

**External (Inorganic) Growth**

Merger: An agreement between two firms who join to form a new company

Takeover: When one firm buys out the shares of another firm to incorporate them into their company

**Advantages of Internal Growth**

- More sustainable as slower
- Less risk than external growth
- Builds on a firm's existing strengths

**Disadvantages of Internal Growth**

- Growth based on the growth of the market
- Slow growth
- Hard to increase market share if a market leader

**Sources of Finance**

Selling Shares: Creating new shares that can be sold on the stock market

Retained Profit: Profit kept within the business that is not paid out in dividends to the shareholders. This source of finance is the best if the business wants to expand.

Bank Loan: This is an arrangement where the amount borrowed must be repaid over a clearly stated period, in regular instalments. The amount is paid back with interest.

Selling Assets: Selling items that the business owns to raise funds. For example, selling property or machinery.

**Advantages of External Growth**

- Quicker than internal growth
- May get rid of competition
- Can get new ideas and new expertise

**Disadvantages of External Growth**

- May be a clash of culture
- May be stopped by the competition authorities
- Increased costs in the short term

**Public Limited Company**

A company that sells its shares on the stock market

This makes it much easier to raise finance but makes the business prone to takeovers

Subject Content	What students need to learn?
2.1.2 Changing Aims and Objectives	<p>Why business aims and objectives change as businesses evolve:                      In response to: market conditions, technology, performance, legislation, internal reasons.</p> <p>How business aims and objectives change as businesses evolve</p>

**How Aims and Objectives Evolve**

**Focus on survival or growth:** Some companies will need to change their objectives to focus on survival following an external factor e.g. a new competitor or economic collapse. Other firms will be currently successful but will want to capitalise on their position and aim to grow

**Entering or exiting markets:** New markets such as China or in Africa can provide new opportunities for businesses. However some businesses will want to leave the market if they are struggling e.g. Morrison's leaving the convenience market

**Growing or reducing the workforce:** Growing businesses may need to hire new staff in order to meet the new demand for their product, however others may be more likely to cut staff to become more efficient or spend more on machinery

**Increasing or decreasing the product range:** Growing organically can only be achieved in two ways, get customers to buy more existing products or create new products to sell. New products can open up new customers and markets which can help increase market share. However it is also worth reducing product ranges if the products are becoming obsolete or if it is becoming difficult to manage all products on offer.

**Business Aims and Objectives**

Business aims are the broad targets than an entrepreneur has at the back of their mind

Business objectives are clear, measurable targets of how to achieve business aims. (the stepping stones for how they are going to achieve them)

- S**PECIFIC - Objectives should specify what they want to achieve. - i.e. one named person is responsible for delivering the objective
- M**EASURABLE - You should be able to measure whether you are meeting the objectives or not.
- A**CHIEVABLE - can the objectives be met?
- R**EALISTIC - Can you realistically achieve the objectives with the resources you have?



Aims and Objectives Change	Description:
Changing market conditions	Markets evolve over time. For example customers now want more luxury chocolate. As a result, Cadbury is now setting new objectives in relation to the
Changing technology	Due to advances in technology businesses have had to respond. For example Ted Baker's sales accelerated dramatically after introducing ecommerce.
Changing performance	If costs start to rise, profits will be squeezed. This is linked to the performance of the business or it could be the industry as a whole. When this happens
Changing legislation	Changes in legislation influence aims and objectives. Or example after Britain voted to leave the EU there was great uncertainty about what changes
Internal reasons for change	Aims and objectives are influenced by a change at the top of the business. If a boss is pushed out and a new one is appointed there will be changes to aims and objectives.



Subject Content	What students need to learn?
2.1.3	The impact of globalisation on businesses
Business and Globalisation	Barriers to international trade How businesses compete internationally

**Impact of Globalisation on Businesses**

Imports: Globalisation allows businesses to be able to access wider markets, which increases the choice of suppliers. This allows businesses to find the cheapest supplier and lower their overall average costs

Competition from overseas: Due to the increased ability to operate in multiple countries it is now easier to move into new markets. This makes sales easier but also is likely to increase competition which can make smaller firms struggle.

Exports: Companies can now increase their number of sales by trying to sell their products overseas, this can increase revenue for the business and help the government pay for the imports that are brought in.

Changing business locations: Some countries are cheaper to operate in than the UK because they have less laws in place or more raw materials on offer. Globalisation allows businesses to open factories in multiple countries to take advantage of the cheapest places, this lowers costs and allows businesses to maximise profits

**Changing the Marketing Mix to Compete Internationally**

If a business is now operating in multiple countries it will need to adapt its 4 Ps to accommodate. Product will need to be adapted to fit with the laws in different countries e.g. H+S. Pricing may be different in different countries to account for popularity. Promotion will change based on what the country uses most, e.g. TV advertisement is much bigger in the US. Place will change based on the development of the country, e.g. ecommerce is popular in the UK but will be less popular in Africa, so companies will need to adjust their distribution channels.

**Globalisation**

Globalisation is the tendency for economies to trade increasingly with each other, creating opportunities for international and multinational companies.

**Barriers to International Trade**

Tariffs: These are taxes imposed on imported goods, this increases the cost of the import which may be passed onto the consumer in the form of higher prices.

Trade Blocs: This is an agreement between countries to trade freely with each other behind a tariff wall that discourages outsiders. This makes trade within the bloc cheaper and provides easier access to bigger markets whilst potentially reducing competition of non trade bloc countries. However if a company operates outside the trade bloc it is much more expensive to trade with all countries within the bloc.

**How Businesses Compete Internationally**

Use of internet and ecommerce: Small businesses are able to use the internet to access a much wider range of customers without the added cost of setting up physical shops in these countries. This makes it possible for small businesses to achieve global success on the back of one trend or even a short term fad. For larger businesses, the internet can help to lower costs and allows the business to become more dynamic.

Name of the Trade Bloc	Trading Bloc Members	Main Features of the Bloc
EU (European Union)	27 members (after UK withdrawal) led by Germany and France	Free movement of goods and labour with a single market backed by common, EU-wide legislation
ASEAN (Association of South East Asian Nations)	Ten members including Thailand and Vietnam, but excluding China	Free movement of goods; started in 1965 with five members; members have enjoyed high economic growth
NAFTA (North American Free Trade Association)	America, Canada and Mexico	Free movement of goods; just three members; 2 rich and one much less so (Mexico)

Subject Content	What students need to learn?
2.2.1	The design mix
Product	The product life cycle
	The importance to a business of differentiating a product/service

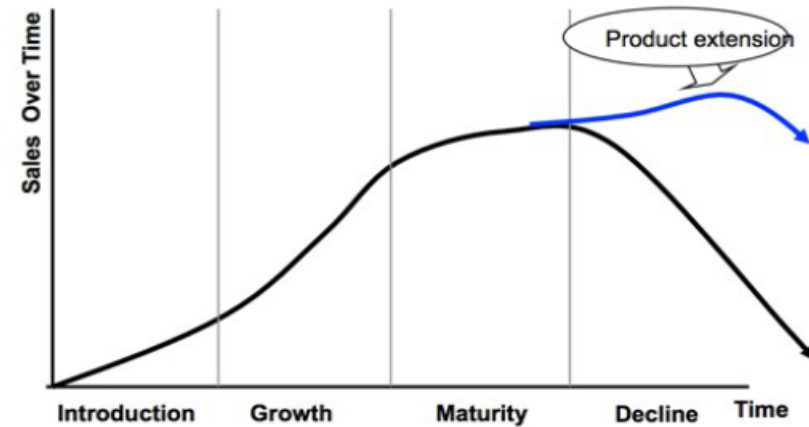
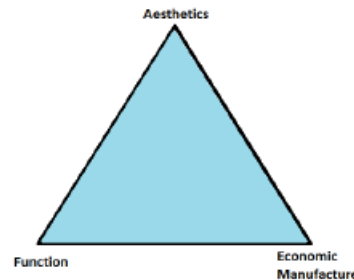
**Design and the Design Mix**

The design mix uses a pyramid diagram to encourage managers to decide on the main design priorities for a new product.

Economic manufacture: Making sure that the design allows the product to be made cost effectively

Function: The design must make sure that the product works well and works every time

Aesthetics: How well does the product appeal to the senses?



**The Importance of Differentiating the Product/Service**

Product differentiation means making a product stand out from the competition. This can help the product become a market leader, may allow the business to charge higher prices or may encourage a loyal customer base.

The design of a product will play a crucial part in this process, either through the branding, the distinctive looks or making it appealing to wear, which increases brand awareness and ensures the product is different from its competitors.

**Extension Strategies**

Firms may try to prevent sales going into decline by using extension strategies, here are some examples of possible strategies:

- Find new uses for the product e.g. Lucozade
- Change the appearance, format or packaging e.g. Coca cola
- Encourage use of the product on more occasions e.g. cereal not just for dinner or ice cream in winter
- Adapt the product; make it new and improved e.g. iPhone 6S

**Product Life Cycle**

A product's life cycle is the amount of time a business expects the product to sustain profitable sales.

1. Introduction: After the product has been well researched, tested and prepared, it will be launched. Sales are low because it is an unknown product, distribution will be low because suppliers will not know if it will be successful, costs will be high due to advertising and production costs. If the product has a USP there is likely to be a high price.
2. Growth: The product becomes more known in the market. Sales, distribution and profits are likely to be rising. Costs will still be high due to advertising still being needed and the price is likely to still be high.
3. Maturity: the market has become more saturated with copycat products. Sales have reached a peak and are likely to flatten out, distribution will be wide as the product is more known and successful. Costs will be low as there will be less need for advertising and profits are likely to be high assuming the product is still popular compared to competitors
4. Decline: the product is no longer popular, it is not offering what customers want anymore. Sales and profits are declining and suppliers are no longer wishing to display the product. Businesses need to make a choice about whether to try an extension strategy or to scrap the product all together. Costs will depend on the level of advertising and profits are likely to little to none.

BUSINESS



Subject Content	What students need to learn?
2.2.2	Pricing strategies
Price	Influences on pricing strategies; technology, competition, market segments and the product life cycle

**Pricing Strategies**

Broadly there are two different types of pricing:

- Pricing low for high volume but low profit margins
- Pricing high for low volume but high profit margins

The choice between these two will depend on a range of factors however the biggest influence will be branding. Strong brands are able to set their own prices, whereas weaker ones have to follow the lead set by others

**Pricing Strategy for Different Market Segments**

**Mass Market**

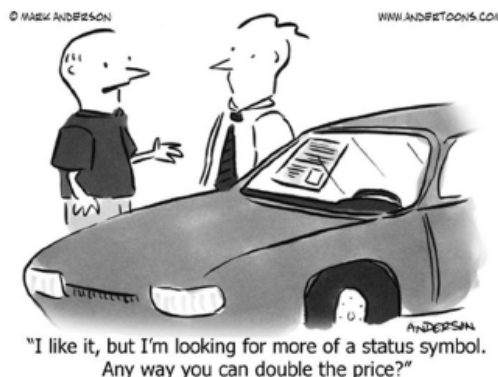
Mass market products are aiming their products at a wide range of customers and are likely to be experiencing high levels of competition. As a result pricing is likely to be ensure that they can compete. Due to the wide number of customers there is still a good likelihood of profit overall, even though profit per item will be low.

Examples include New Look, Primark, Lidl and Aldi.

**Niche Market**

A niche market is based on a particular type of customer who wants something different from the majority. Due to this difference there is likely to be less competition and customers will be more willing to pay more which ensures that although there are low sales volumes, profits can still be made.

Examples include Alpro or Jaguar



**How Technology Influences Pricing Strategies**

Due to the access of ecommerce there is more ability to shop around and try to get the best deal on products, which means that firms have more competition than just their local area and need to be more price competitive.

On the other hand, ecommerce has also expanded the market making it easier to attract customers, this means that some businesses can charge more for their products because the demand is higher

**Pricing Strategies at Different Stages of the Product Life Cycle**

**Introduction**

Lots of businesses will choose a low price initially to encourage customers to try their product, especially if it is an unknown product or brand. If the product is popular the price will start to rise. However some businesses will start with a high price if they are looking to create an image of quality and expense rather than cheap. In addition products with good branding, especially technology will start expensive to ensure high profit margins from the keen before lowering the pricing for everyone else.

**Growth**

In the early stages most businesses will be looking to keep prices low to ensure sales continue to grow and increase prices once the growth is more established.

**Maturity**

When growth is at an end, new pricing decisions may be needed. If during growth prices were kept low to encourage sales there may be an incentive to raise prices to try and improve profit margins now that sales are no longer growing so fast. This may be important if new products are needed before the current product goes into decline, meaning investment.

**Decline**

During decline, profits will be falling, this means that firms need to make a decision about pricing. If an extension strategy is being planned such as adapting the product there may be a basis to increase the price. If there are loyal customers to the product but few new customers, the business may be able to increase prices assuming the loyal customers will still want the product. However some businesses may choose to put deals into place to encourage last ditch sales before it is taken off the market.

Subject Content	What students need to learn?
2.2.3	Appropriate promotion strategies for different market segments
Promotion	The use of technology in promotion

**The Use of Technology in Promotion**

**Targeted Advertising Online**

In 2015, UK spending on digital advertising far outstripped TV advertising. By 2017 more than half of all promotional spending in the UK was on digital advertising. Through the use of 'cookies' and other ways of capturing information advertisers today know much more about customers spending habits than previously. As a result advertising can be much better targeted, reducing waste and ensuring that firms are reaching their customers. For mass market products such as Coca Cola, TV advertising can still be cost effective due to the large number of customers they have. Targeting a much smaller customer range means online advertising is much more cost effective.

**Viral Advertising via Social Media**

It is easy to see why great video advertisements can 'go viral', in other words get passed on from person to person via Tweets and other social media. However it is difficult to get a campaign to go viral and many businesses have tried and failed. This is something that can be difficult to rely on as a form of advertising.

**E-Newsletters**

If you buy a cinema ticket online, you are likely to end up receiving the cinema's weekly newsletter. It will tell you about the major new films and offer discounts. From a companies point of view this form of advertising is virtually free. Some businesses will want to spend more on e-newsletters in order to make them more interactive however it is only the initial cost that is likely to increase.

**Promotional Strategy for Different Market Segments**

**Advertising**

In the mass market the role of advertising is often to achieve name recognition and little more. For example Just Eat advertises widely on TV in order to foster trust with their customers and ensure that customers are willing to use them. All mass market businesses aim to achieve a level of brand awareness like Audi who are able to sell their products at a premium because of their brand. In niche markets TV advertising is less appealing due to the cost. For example G-Star RAW aim their products at under 25s and have focused on digital advertising to improve street credibility.

**Sponsorship**

Sponsorship means paying to have your brand or company name attached to an activity that has credibility with your customers. Often this involves sport or music. For example Red Bull have sponsored extreme sports and Formula 1 giving it a risk taker image and help it compete with Monster and Relentless. This is an expensive form of promotion and so is unlikely to be used by niche market products.

**Branding**

Branding means giving your product or service a name that helps recall and recognition and gives a sense of personality. Successful branding can mean that an image stays with people years, event decades after the reality has changed. For example Heinz are still the go to product for baked beans, even though there are competitors out there.

**Product Trials**

A product trial means giving potential customers a free taste—or longer trial—of your new product. This approach is used when there is known to be a hurdle that is likely to prevent customers from making a purchase of their own. This is very expensive, not just due to lost products but also due to the amount of labour required to ensure it works well. Social media can help to reduce this if videos are made and posted online. E.g. Pepsi and Coca Cola taste testing.

**Special Offers**

Special offers should be regarded as the last resort. No company wants to 'give away' product, as with a BOGOF offer. Special offers can undermine the brand even if there will be short term gains in profit. There are occasions when special offers work best; after Christmas, a new competitor has arrived, launching a new product and so adding it into a deal with your best selling product.





Subject Content	What students need to learn?
2.2.4 Place	Methods of distribution; retailers and e-tailers (e-commerce)

**Definitions**

Distribution: How ownership changes as a product goes from producer to consumer

E-tailer: An electronic retailer; in other words purchasing electronically, either by e-commerce, or m-commerce

Retailer: A shop, usually selling from a building in a high street or shopping centre

**Methods of Retail Distribution**

There are 3 main ways to get products from the producer to the consumer:

The Traditional Channel: The producer sells in bulk to wholesalers, who sell in smaller quantities to small and independent retailers. Without wholesalers, small shops couldn't exist as it would be too expensive for the producer to deliver to all the different shops.

The Modern Channel: This is very important for the grocery sector. The producer delivers huge quantities directly to a supermarket's distribution depot which sends the product to all local supermarkets. This can help the supplier get a higher profit because they are closer to the customer

The Direct Channel: Buying directly from the producer, e.g. the original mail order services or more currently using e-commerce or m-commerce.

**Gaining Retail Distribution**

First time entrepreneurs are often surprised to find that getting retail distribution is hard, and keeping it is harder. To gain distribution a company need to:

- Show that its brand offers something different for customers
- Show strength in marketing
- Provide a high level of profit to the retailer

To keep stock over a period of years the company will need to:

- Provide regular promotional support to keep sales moving
- Make sure sales continue to grow by advertising

**E-tail Distribution or Ecommerce**

There are two main types of e-commerce

- Direct sales from producer to consumer such as buying a MacBook computer direct online from Apple
- Sales through an e-tailer such as ASOS

Direct sales are great for the producer, who received the full retail price instead of having to make do with the wholesale price. E-tailers are more important today though. Their shops display products online and have efficient systems to make it easy to purchase, deliver and return products. Because the e-tailer is saving the cost of a physical shop they choose to live with the higher number of returns than a physical shop would get.

	Advantages	Disadvantages
<b>Physical Retail Distribution</b>	Customers can touch, hold, smell and wear products before buying You can choose exactly the type of product you want, e.g. food	Going shopping is time consuming, especially if shopping around is needed Choice can be overwhelming, leading to too much time being spent
<b>Online Retail Distribution</b>	The convenience of being able to order from home or on the move No time wasted driving, parking or shopping	Encourages a lazy nature, it might be better to go outside Delivery charges may increase prices



CHEMISTRY

<b>Crude oil</b>	<i>A finite resource</i>	Consisting mainly of plankton that was buried in the mud, crude oil is the remains of ancient biomass.
<b>Hydrocarbons</b>	<i>These make up the majority of the compounds in crude oil</i>	Most of these hydrocarbons are called alkanes.
<b>General formula for alkanes</b>	$C_nH_{2n+2}$	For example: $C_2H_6$ $C_6H_{14}$

**Crude oil, hydrocarbons and alkanes**

Display formula for first four alkanes

$\begin{array}{c} H \\ | \\ H-C-H \\ | \\ H \end{array}$   
 Methane (CH<sub>4</sub>)

$\begin{array}{c} H & H \\ | & | \\ H-C & -C-H \\ | & | \\ H & H \end{array}$   
 Ethane (C<sub>2</sub>H<sub>6</sub>)

$\begin{array}{c} H & H & H \\ | & | & | \\ H-C & -C & -C-H \\ | & | & | \\ H & H & H \end{array}$   
 Propane (C<sub>3</sub>H<sub>8</sub>)

$\begin{array}{c} H & H & H & H \\ | & | & | & | \\ H-C & -C & -C & -C-H \\ | & | & | & | \\ H & H & H & H \end{array}$   
 Butane (C<sub>4</sub>H<sub>10</sub>)

<b>Fractions</b>	<i>The hydrocarbons in crude oil can be split into fractions</i>	Each fraction contains molecules with a similar number of carbon atoms in them. The process used to do this is called fractional distillation.
<b>Using fractions</b>	<i>Fractions can be processed to produce fuels and feedstock for petrochemical industry</i>	We depend on many of these fuels; petrol, diesel and kerosene.  Many useful materials are made by the petrochemical industry; solvents, lubricants and polymers.

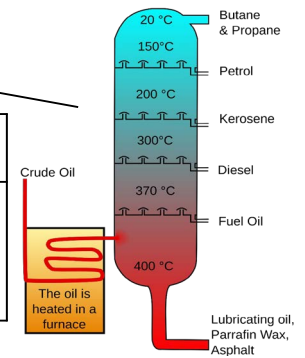
**Carbon compounds as fuels and feedstock**

**AQA GCSE Organic chemistry 1**

**Carbon compounds as fuels and feedstock**

**Fractional distillation and petrochemicals**

<b>Hydrocarbon chains</b>	<b>In oil</b>	Hydrocarbon chains in crude oil come in lots of different lengths.
	<b>Boiling points</b>	The boiling point of the chain depends on its length. During fractional distillation, they boil and separate at different temperatures due to this.



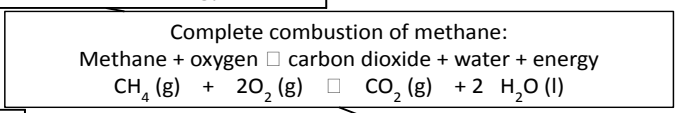
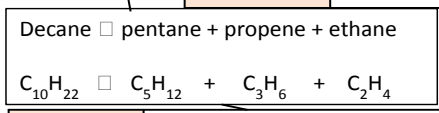
<b>Alkanes to alkenes</b>	<i>Long chain alkanes are cracked into short chain alkenes.</i>
<b>Alkenes</b>	<i>Alkenes are hydrocarbons with a double bond (some are formed during the cracking process).</i>
<b>Properties of alkenes</b>	<i>Alkenes are more reactive than alkanes and react with bromine water. Bromine water changes from orange to colourless in the presence of alkenes.</i>

**Cracking and alkenes**

**Properties of hydrocarbons**

<b>Combustion</b>	During the complete combustion of hydrocarbons, the carbon and hydrogen in the fuels are oxidised, releasing carbon dioxide, water and energy.
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<b>Cracking</b>	<i>The breaking down of long chain hydrocarbons into smaller chains</i>	The smaller chains are more useful. Cracking can be done by various methods including catalytic cracking and steam cracking.
<b>Catalytic cracking</b>	<i>The heavy fraction is heated until vaporised</i>	After vaporisation, the vapour is passed over a hot catalyst forming smaller, more useful hydrocarbons.
<b>Steam cracking</b>	<i>The heavy fraction is heated until vaporised</i>	After vaporisation, the vapour is mixed with steam and heated to a very high temperature forming smaller, more useful hydrocarbons.



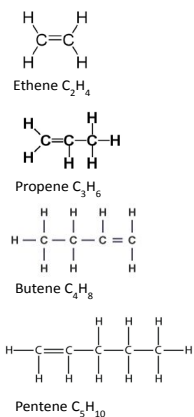
<b>Alkenes and uses as polymers</b>	<i>Used to produce polymers. They are also used as the starting materials of many other chemicals, such as alcohol, plastics and detergents.</i>
<b>Why do we crack long chains?</b>	<i>Without cracking, many of the long hydrocarbons would be wasted as there is not much demand for these as for the shorter chains.</i>

<b>Boiling point (temperature at which liquid boils)</b>	<i>As the hydrocarbon chain length increases, boiling point increases.</i>
<b>Viscosity (how easily it flows)</b>	<i>As the hydrocarbon chain length increases, viscosity increases.</i>
<b>Flammability (how easily it burns)</b>	<i>As the hydrocarbon chain length increases, flammability decreases.</i>





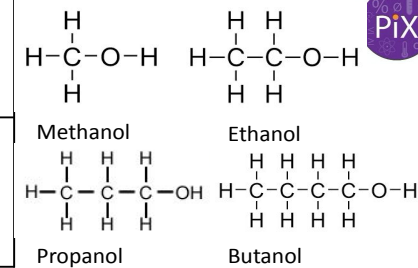
CHEMISTRY



<b>Alkenes</b>	<i>Hydrocarbons with a double carbon-carbon bond.</i>
<b>Unsaturated</b>	<i>Alkenes are unsaturated because they contain two fewer hydrogen atoms than their alkane counterparts.</i>
<b>General formula for alkenes</b>	<b>C<sub>n</sub>H<sub>2n</sub></b>

Structure and formula of alkenes

<b>Functional group</b>	<i>Alkenes are hydrocarbons in the functional group C=C.</i>	The functional group of an organic compound determined their reactions.
<b>Alkene reactions</b>	<i>Alkenes react with oxygen in the same way as other hydrocarbons, just with a smoky flame due to incomplete combustion.</i>	Alkenes also react with hydrogen, water and the halogens. The C=C bond allows for the addition of other atoms.



Reactions of alkenes and alcohols

<b>Functional group</b>	<b>-OH</b> <i>For example: CH<sub>3</sub>CH<sub>2</sub>OH</i>	Methanol, ethanol, propanol and butanol are the first four of the homologous series.
<b>Alcohol reactions</b>	<i>Alcohols react with sodium, air and water.</i>	Alcohols and sodium: bubbling, hydrogen gas given off and salt formed.  Alcohols and air: alcohols burn in air releasing carbon dioxide and water.  Alcohols and water: alcohols dissolve in water to form a neutral solution.
<b>Fermentation</b>	<i>Ethanol is produced from fermentation.</i>	When sugar solutions are fermented using yeast, aqueous solutions of ethanol are produced. The conditions needed for this process include a moderate temperature (25 – 50°C), water (from sugar solution) and an absence of oxygen.

AQA GCSE Organic chemistry 2 (CHEMISTRY ONLY)  
Synthetic and naturally occurring polymers

<b>Functional group</b>	<b>-COOH</b> <i>For example: CH<sub>3</sub>COOH</i>	Methanoic acid, ethanoic acid, propanoic acid and butanoic acid are the first four of the homologous series.
<b>Carboxylic acid reactions</b>	<i>Carboxylic acids react with carbonates, water and alcohols.</i>	Carboxylic acids and carbonates: These acids are neutralised by carbonates  Carboxylic acids and water: These acids dissolve in water.  Carboxylic acids and alcohols: The acids react with alcohols to form esters.
<b>Strength (HT only)</b>	<i>Carboxylic acids are weak acids</i>	Carboxylic acids only partially ionise in water. An aqueous solution of a weak acid with have a high pH (but still below 7).

Carboxylic acids

Addition polymerisation

**Amino acids**

Amino acids have two functional groups in a molecule. They react by condensation polymerisation to produce peptides.

$$\begin{array}{c} \text{H} & & \text{H} & & \text{O} \\ | & & | & & // \\ \text{H}-\text{N} & - & \text{C} & - & \text{C} \\ | & & | & & \backslash \\ \text{H} & & \text{H} & & \text{O}-\text{H} \end{array}$$

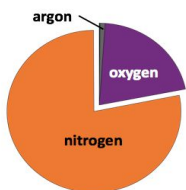
Glycine

**DNA and naturally occurring polymers**

<b>DNA</b>	<i>Deoxyribonucleic acid is a large molecule essential for life. DNA gives the genetic instructions to ensure development and functioning of living organisms and viruses.</i>
<b>DNA structure</b>	<i>Most DNA molecules are two polymer chains made from four different monomers, called nucleotides. They are in the double helix formation.</i>
<b>Natural polymers</b>	<i>Other naturally occurring polymers include proteins, starch and cellulose and are all important for life.</i>

<b>Polymers</b>	<i>Alkenes are used to make polymers by addition polymerisation.</i>	Many small molecules join together to form polymers (very large molecules).
<b>Displaying polymers</b>	<i>In addition polymers, the repeating unit has the same atoms as the monomer.</i>	It can be displayed like this: $n \left( \begin{array}{c} \text{H} & \text{H} \\   &   \\ \text{C} & = & \text{C} \\   &   \\ \text{H} & \text{H} \end{array} \right) \xrightarrow{\text{polymerisation}} \left[ \begin{array}{c} \text{H} & \text{H} \\   &   \\ -\text{C} & - & \text{C}- \\   &   \\ \text{H} & \text{H} \end{array} \right]_n$ ethene repeating unit of poly(ethene)

<b>Condensation polymerisation</b>	<i>Condensation polymerisation involves monomers with two functional groups</i>	When these types of monomers react they join together and usually lose small molecules, such as water. This is why they are called condensation reactions.
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Gas	Percentage
Nitrogen	~80%
Oxygen	~20%
Argon	0.93%
Carbon dioxide	0.04%

Proportions of gases in the atmosphere

Algae and plants	<i>These produced the oxygen that is now in the atmosphere, through photosynthesis.</i>	carbon dioxide + water $\rightarrow$ glucose + oxygen $6\text{CO}_2 + 6\text{H}_2\text{O} \rightarrow \text{C}_6\text{H}_{12}\text{O}_6 + 6\text{O}_2$
Oxygen in the atmosphere	<i>First produced by algae 2.7 billion years ago.</i>	Over the next billion years plants evolved to gradually produce more oxygen. This gradually increased to a level that enabled animals to evolve.

Volcano activity 1 <sup>st</sup> Billion years	<i>Billions of years ago there was intense volcanic activity</i>	This released gases (mainly CO <sub>2</sub> ) that formed to early atmosphere and water vapour that condensed to form the oceans.
Other gases	<i>Released from volcanic eruptions</i>	Nitrogen was also released, gradually building up in the atmosphere. Small proportions of ammonia and methane also produced.
Reducing carbon dioxide in the atmosphere	<i>When the oceans formed, carbon dioxide dissolved into it</i>	This formed carbonate precipitates, forming sediments. This reduced the levels of carbon dioxide in the atmosphere.

The Earth's early atmosphere

How oxygen increased

How carbon dioxide decreased

Composition and evolution of the atmosphere

AQA GCSE Chemistry of the atmosphere

Common atmospheric pollutants

CO<sub>2</sub> and methane as greenhouse gases

Carbon footprints

Global climate change

Greenhouse gases

Carbon dioxide, water vapour and methane	<i>Examples of greenhouse gases that maintain temperatures on Earth in order to support life</i>
The greenhouse effect	<i>Radiation from the Sun enters the Earth's atmosphere and reflects off of the Earth. Some of this radiation is re-radiated back by the atmosphere to the Earth, warming up the global temperature.</i>

The total amount of greenhouse gases emitted over the full life cycle of a product/event. This can be reduced by reducing emissions of carbon dioxide and methane.

Properties and effects of atmospheric pollutants

Carbon monoxide	<i>Toxic, colourless and odourless gas. Not easily detected, can kill.</i>
Sulfur dioxide and oxides of nitrogen	<i>Cause respiratory problems in humans and acid rain which affects the environment.</i>
Particulates	<i>Cause global dimming and health problems in humans.</i>

Effects of climate change
Rising sea levels
Extreme weather events such as severe storms
Change in amount and distribution of rainfall
Changes to distribution of wildlife species with some becoming extinct

Human activities and greenhouse gases

Carbon dioxide	<i>Human activities that increase carbon dioxide levels include burning fossil fuels and deforestation.</i>
Methane	<i>Human activities that increase methane levels include raising livestock (for food) and using landfills (the decay of organic matter released methane).</i>
Climate change	<i>There is evidence to suggest that human activities will cause the Earth's atmospheric temperature to increase and cause climate change.</i>

Atmospheric pollutants from fuels

Combustion of fuels	<i>Source of atmospheric pollutants. Most fuels may also contain some sulfur.</i>
Gases from burning fuels	<i>Carbon dioxide, water vapour, carbon monoxide, sulfur dioxide and oxides of nitrogen.</i>
Particulates	<i>Solid particles and unburned hydrocarbons released when burning fuels.</i>

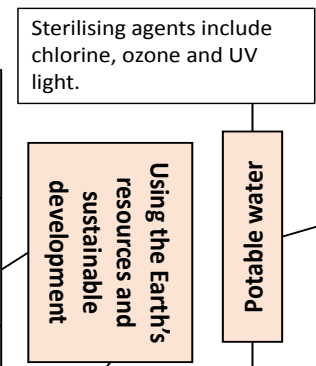




CHEMISTRY

Earth's resources	<i>Used to provide warmth, shelter, food and transport for humans</i>	Natural resources and resources from agriculture provide: timber, food, clothing and fuels.
		Finite resources from the Earth, oceans and atmosphere are processed to provide energy and materials.
Chemistry and resources	<i>Research and techniques improve agricultural and industrial processes</i>	These improvements provide new products and improve sustainability.
Plastics	<i>Normally made using ethene from crude oil</i>	However, the raw material ethene can also be obtained from ethanol, which can be produced during fermentation. Industries are now starting to use a renewable crop for this process.

LCAS	<i>Life cycle assessments are carried out to assess the environmental impact of products</i>	They are assessed at these stages: <ul style="list-style-type: none"> <li>- Extraction and processing raw materials</li> <li>- Manufacturing and packaging</li> <li>- Use and operation during lifetime</li> <li>- Disposal</li> </ul>
Values	<i>Allocating numerical values to pollutant effects is difficult</i>	Value judgments are allocated to the effects of pollutants so LCA is not a purely objective process.



Potable water	<i>Water of an appropriate quality is essential for life</i>	Human drinking water should have low levels of dissolved salts and microbes. This is called potable water.
UK water	<i>Rain provides water with low levels of dissolved substances</i>	This water collects in the ground/lakes/ivers. To make potable water an appropriate source is chosen, which is then passed through filter beds and then sterilised.
Desalination	<i>Needs to occur is fresh water is limited and salty/sea water is needed for drinking</i>	This can be achieved by distillation or by using large membranes e.g. reverse osmosis. These processes require large amounts of energy.

Using the Earth's resources and obtaining potable water

AQA GCSE Using resources 1

Life cycle assessment and recycling

Ways of reducing the use of resources

Reduce, reuse and recycle	<i>This strategy reduces the use of limited resources</i>	This, therefore, reduces energy sources being used, reduces waste (landfill) and reduces environmental impacts.
Limited raw materials	<i>Used for metals, glass, building materials, plastics and clay ceramics</i>	Most of the energy required for these processes comes from limited resources. Obtaining raw materials from the Earth by quarrying and mining causes environmental impacts.
Reusing and recycling	<i>Metals can be recycled by melting and recasting/reforming</i>	Glass bottles can be reused. They are crushed and melted to make different glass products. Products that cannot be reused are recycled.

Wastewater treatment

Alternative methods of extracting metals (HT)

Waste water	<i>Produced from urban lifestyles and industrial processes</i>	These require treatment before used in the environment. Sewage needs the organic matter and harmful microbes removed.
Sewage treatment	<i>Includes many stages</i>	<ul style="list-style-type: none"> <li>- Screening and grit removal</li> <li>- Sedimentation to produce sludge and effluent (liquid waste or sewage).</li> <li>- Anaerobic digestion of sludge</li> <li>- Aerobic biological treatment of effluent.</li> </ul>

Metals ores	<i>These resources are limited</i>	Copper ores especially are becoming sparse. New ways of extracting copper from low-grade ores are being developed.
Phytomining	<i>Plants absorb metal compounds</i>	These plants are then harvested and burned; their ash contains the metal compounds.
Bioleaching	<i>Bacteria is used to produce leachate solutions that contain metal compounds</i>	The metal compounds can be processed to obtain the metal from it e.g. copper can be obtained from its compounds by displacement or electrolysis.



<b>Corrosion</b>	<i>The destruction of materials by chemical reactions with substances in the environment</i>	An example of this is iron rusting; iron reacts with oxygen from the air to form iron oxide (rust) water needs to be present for iron to rust.
<b>Preventing corrosion</b>	<i>Coatings can be added to metals to act as a barrier</i>	Examples of this are greasing, painting and electroplating. Aluminium has an oxide coating that protects the metal from further corrosion.
<b>Sacrificial corrosion</b>	<i>When a more reactive metal is used to coat a less reactive metal</i>	This means that the coating will react with the air and not the underlying metal. An example of this is zinc used to galvanise iron.

<b>NPK fertilisers</b>	<i>These contain nitrogen, phosphorus and potassium</i>	Formulations of various salts containing appropriate percentages of the elements.
<b>Fertiliser examples</b>	<i>Potassium chloride, potassium sulfate and phosphate rock are obtained by mining</i>	Phosphate rock needs to be treated with an acid to produce a soluble salt which is then used as a fertiliser. Ammonia can be used to manufacture ammonium salts and nitric acid.

Corrosion and its prevention

Alloys are useful materials

<b>Alloys</b>	<i>A mixture of two elements, one of which must be a metal e.g. Bronze is an alloy of copper and tin and Brass is an alloy of copper and zinc.</i>
<b>Gold carats</b>	<i>Gold jewellery is usually an alloy with silver, copper and zinc. The carat of the jewellery is a measure of the amount of gold in it e.g. 18 carat is 75% gold, 24 carat is 100% gold.</i>
<b>Steels</b>	<i>Alloys of iron, carbon and other metals.</i>
	<i>High carbon steel is strong but brittle.</i>
	<i>Low carbon steel is softer and easily shaped.</i>
	<i>Steel containing chromium and nickel (stainless) are hard and corrosion resistant.</i>
<i>Aluminium alloys are low density.</i>	

**Ceramics, polymers and composites**

<b>Polymers</b>	<i>Thermosetting</i>	polymers that do not melt when they are heated.
	<i>Thermosoftening</i>	polymers that melt when they are heated.

Production and uses of NPK fertilisers

**Using materials**

**AQA GCSE Using resources 2 (CHEM ONLY)**

**The Haber process and the use of NPK fertilisers**

<b>Composite materials</b>	<i>A mixture of materials put together for a specific purpose e.g. strength</i>	Soda-lime glass, made by heating sand, sodium carbonate and limestone.
		Borosilicate glass, made from sand and boron trioxide, melts at higher temperatures than soda-lime glass.
		MDF wood (woodchips, shavings, sawdust and resin)
		Concrete (cement, sand and gravel)
<b>Ceramic materials</b>	<i>Made from clay</i>	Made by shaping wet clay and then heating in a furnace, common examples include pottery and bricks.
<b>Polymers</b>	<i>Many monomers can make polymers</i>	These factors affect the properties of the polymer. Low density (LD) polymers and high density (HD) polymers are produced from ethene. These are formed under different conditions.

Phosphate rock	
<b>Treatment</b>	<b>Products</b>
Nitric acid	<i>The acid is neutralised with ammonia to produce ammonium phosphate, a NPK fertiliser.</i>
Sulfuric acid	<i>Calcium phosphate and calcium sulfate (a single superphosphate).</i>
Phosphoric acid	<i>Calcium phosphate (a triple superphosphate).</i>

The Haber process – conditions and equilibrium	
<b>Pressure</b>	<i>The reactants side of the equation has more molecules of gas. This means that if pressure is increased, equilibrium shifts towards the production of ammonia (Le Chatelier's principle). The pressure needs to be as high as possible.</i>
<b>Temperature</b>	<i>The forward reaction is exothermic. Decreasing temperature increases ammonia production at equilibrium. The exothermic reaction that occurs releases energy to surrounding, opposing the temperature decreases. Too low though and collisions would be too infrequent to be financially viable.</i>

The Haber process

<b>The Haber process</b>	<i>Used to manufacture ammonia</i>	<b>Ammonia is used to produce fertilisers</b> Nitrogen + hydrogen $\rightleftharpoons$ ammonia
<b>Raw materials</b>	<i>Nitrogen from the air while hydrogen from natural gas</i>	Both of these gases are purified before being passed over an iron catalyst. This is completed under high temperature (about 450°C) and pressure (about 200 atmospheres).
<b>Catalyst</b>	<i>Iron</i>	The catalyst speeds up <b>both</b> directions of the reaction, therefore not actually increasing the amount of valuable product.

CHEMISTRY



## 1.4 WIRED AND WIRELESS NETWORKS

### Key Terms

A network is where devices have been connected together so that they can share data and resources. Networks can be wired (Ethernet) or wireless (Wi-Fi).

<b>Local Area Network (LAN)</b>	Cover a small geographical area such as an office. Use their own infrastructure.
<b>Wide Area Network (WAN)</b>	WANs connect LANs together over a large geographical area and make use of infrastructure from telecommunications companies.
<b>Bandwidth</b>	The amount of data that can pass between network devices per second
<b>Server</b>	A device that provides services for other devices (e.g. file server or print server)
<b>Client</b>	A computer or workstation that receives information from a central server
<b>Peer to peer Network</b>	All of the computers in the network are equal. They connect directly to each other.
<b>Standalone computers</b>	A computer not connected to a network

### NETWORK HARDWARE

**Network Interface Controller (NIC):** built in hardware that allows a device to connect to a network.

**Switches:** connect devices on a LAN

**Router:** Transmits the data (packets) between the networks (eg: the internet and your LAN)

**Wireless Access Point (WAP):** a switch that allows devices to connect wirelessly.

**Cables:** the cables in a network can be twisted pair cables, coaxial cables or fibre optic cables.

### NETWORK PERFORMANCE

These factors can impact on network performance:

**Bandwidth:** The more bandwidth, the more data that can be transferred at a time.

**Number of Users:** Having a lot of people using a network means lots of data is being transmitted which can slow it down.

**Transmission Media:** Wired connections are faster than wireless. Fibre optic cables are faster than copper cables.

**Wireless Factors:** wireless can be affected by walls, distance, signal quality and interference from other devices.

**Topology:** The layout of a network can impact on its performance.

### VIRTUAL NETWORKS

A virtual network is part of a LAN or WAN where only certain devices can “see” and communicate with each other usually connected remotely.

### EXAM QUESTIONS

1. Give 3 items of hardware needed for a network
2. Explain the difference between a peer-to-peer network and a client server network.
3. The school’s network has become very slow. Explain two different reasons why this might be.
4. Evaluate the benefits of using a wired connection rather than a wireless one.

## 1.5 NETWORK TOPOLOGIES, PROTOCOLS AND LAYERS

### NETWORK TOPOLOGIES

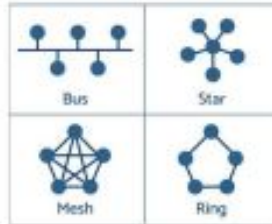
A topology is the layout of a network.

**Bus:** Slow network due to data collisions on the single backbone cable.

**Star:** If the central switch fails, the whole network fails. If one device fails, the network is fine.

**Ring:** Data moves in one direction which prevents collisions. Only one device can send data at once.

**Mesh:** Each device is connected to every other device so they can send data the fastest route. There is no single point where network can fail. Require lots of wire.



### PROTOCOLS

Protocols are the rules for how devices communicate and transmit data across a network.

Every device has a **MAC address** so that it can be identified on a network. Eg: 98-1C-B3-09-85-15

**IP addresses** are used when sending data between networks. They can be static (permanent) or dynamic (different each time the device connects).

**TCP/IP:** Used to send data between networks in packets.

**Transmission Control Protocol (TCP):** Splits the data into packets and re-assembles. Checks data is sent correctly.

**Internet Protocol (IP):** does the packet switching

**Hyper Text Transfer Protocol (HTTP):** for accessing websites

**HTTPS:** The secure version of HTTP

**File Transfer Protocol (FTP):** Moves files between devices

**Post Office Protocol (POP3):** Retrieves emails from server. Once you download the email the server copy is deleted.

**Internet Message Access Protocol (IMAP):** Retrieves email from server. Email is kept on server, you see a copy.

**Simple Mail Transfer Protocol (SMTP):** sends emails.

### LAYERS

Network protocols are divided into layers so that protocols with similar functions are grouped together.

#### Layer 4: Application

- Turn data into applications or websites
- HTTP, FTP, SMTP

#### Layer 3: Transport

- Control the flow of data
- TCP

#### Layer 2: Network

- Direct data packets between networks
- IP

#### Layer 1: Data Link

- Sending data over a physical network
- Ethernet

### PACKET SWITCHING

- Data is split into packets and numbered in order.
- Each packet is sent the fastest route across the internet by the routers. This means packets can take different routes and arrive out of order.
- The packet numbers are used to put them in order.
- If packets are missing a timeout message is sent
- Once all have arrived a receipt confirmation is sent to the device that sent them.

### EXAM QUESTIONS

1. Explain why protocols are used
2. Describe how packet switching works
3. Evaluate the benefits and drawbacks of a mesh network.
4. Draw topologies for bus, ring and star networks.
5. Explain the difference between HTTP and HTTPS
6. Explain the difference between POP3 and IMAP



KS4 Computer Science

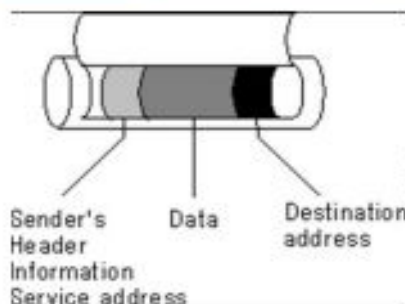
**Data packages and transfer:** When data is sent over a network is broken into several equally sized pieces. The packet consists of 3 things. A Header; this contains the senders IP address, the recipients IP address, the packet number and total number of packets. A Payload; this is the actual data part. A Checksum; this is used to validate the data and check if the data is corrupted. The packages are sent from one router to the next. Each router calculates the quickest route for the data to take and sends it on. This helps data beat traffic congestion and hardware failures. When the package arrives at the destination computer it is verified using the checksum and re-assembled. If any packages are missing a requested is sent to the original computer for a copy to be re-sent.

**Protocol layers:** Each data package is bundled up with all the instructions needed for each Router to forward it on (these are called Protocols). Protocols are grouped together with other protocols that have a similar function or job. These are called layers. There are four layers.

**Bandwidth:** The amount of data that can be transferred over a network connection. Bandwidth is often shared across users on a network

**Latency:** Any interference, traffic or disruption on a network that delays data transfer

Protocol	Stands for...	What is it used for
HTTP	Hyper Text Transfer Protocol	Used by Web Browsers to send, access and display websites from web servers
HTTPS	Hyper Text Transfer Protocol Secure	A more secure version of HTTP used for banking and finance. Encrypts all information sent and received
FTP	File Transfer Protocol	Used to access, edit and move files on a network e.g. to access files on a server from a computer
POP3	Post Office Protocol (V3)	Used to receive emails from an email server. POP3 downloads the email on to the device and the copy on the server is deleted
IMAP	Internet Message Access Protocol	Used to receive emails from a server. The emails are synchronised so the email is only deleted from the server when it is deleted from the device
SMTP	Simple Mail Transfer Protocol	Used to send email messages



**Network advantages:** Can share data, work together, communicate and control services and security centrally

**Network Disadvantages:** Over reliance on central devices (servers). Malware and Hackers

**MAC address:** Hardcode into NIC. 48 or 64 bit. Represented normally by 6 pairs of Hexadecimal digits. IP addresses are assigned to MAC addresses

**Internet Protocol (IP):** Every device on a network has an IP address. Normally IP addresses are dynamic – they change each time a device connects to a network. Some times they are static – can't be changed – for example for a server.

**DHCP:** Dynamic Host Configuration Protocol. Used by networks to assign IP addresses to computers / servers. When a computer needs to access a service it sends the computer name to the DHCP server and the DHCP server sends back the IP address so that data packets can then be sent. Its a huge directory lookup. There are a number of DHCP servers that store all the IP addresses for the Internet Web Pages. Each one has a copy in the case the others fail

**DNS:** Domain name server translates a web URL to an IP address so computers can find the correct web server online.



## 2.2 PROGRAMMING TECHNIQUES

### DATA TYPES

Data Type	Definition
String	Text eg: "Hello"
Integer	Whole number eg: 32
Float/Real	Decimal number eg: 1.2
Boolean	Two values eg: true or false
Character	A single character eg: b

### VARIABLES AND CONSTANTS

**Variable** - A value which may change while the program is running. Variables can be local or global.

**Local Variable** - a variable which can only be used within the structure they are declared in.

**Global Variable** - a variable which can be used in any part of the code after they are declared

**Constant** - A value which cannot be altered as the program is running.

### OPERATORS

Operator/Function	Definition
Exponentiation	Raises a number to a power eg: 2**3 OR 2 ^3 (=2 <sup>3</sup> )
Quotient/DIV	Gives the whole number after a division
Remainder/MOD	Gives the remainder part of a division
==	Is equal to
! or <>	Is not equal to
<	Is less than
>	Is more than

### ARRAYS

**One-Dimensional Arrays**- this is like a list. In this example an array has been created called students. The list can hold 3 items (as shown).

```
array students [3]
students [0] = "Bob"
students [1] = "Dave"
students [2] = "Bob"
```

This command would print the second item (1) From the array. It would print "Dave".

```
print(students[1])
```

**Two-Dimensional Arrays** - these are lists within lists (like a table)

```
Grades=[["Bob", "22%", "44%"], ["Dave", "85%", "100%"]]
```

	0	1	2
0	Bob	22%	44%
1	Dave	85%	100%

The code above creates the 2D array. The code Below would output:  
"Bob's first test score was 22%"

```
print("Bob's first test score was " + Grades [0, 1])
```



## 2.2 PROGRAMMING TECHNIQUES CONTINUED

### PROGRAMMING CONSTRUCTS



Sequence

A Sequence is when there are programming steps that are carried out one after another.



Selection

Selection is where there are different paths in your code eg: IF, ELIF, ELSE



Iteration

Iteration is when there is repetition (loops) in code. This could be a WHILE loop (do something WHILE a condition is met) or a FOR loop (do something for a set number of times)

This count-controlled loop would print "Hello World" 8 times.:

```
for i=0 to 7
  print ("Hello")
next i
```

These condition controlled loops would check if a password's correct:

```
while answer != "letmein123"
  answer=input("Enter password")
endwhile
```

```
do
  answer=input("Enter password")
until answer=="letmein123"
```

### STRING MANIPULATION

0 1 2 3  
W o r d

The characters in a string are numbered starting with position 0.

Function	Purpose
x.length	Gives the length of the string
x.upper	Changes the characters in the string to upper case
x.lower	Changes the characters in the string to lower case
x[i]	Gives the character in position i. Eg: x[2] = "r"
x.substring(a,b)	Gives the characters from position a with length b. Eg: x.substring(1,2) = or
+	Joins (concatenates) two strings together

### FILE HANDLING

Myfile=openRead("myfile.text")	Opens the file in read mode
Myfile=openWrite("myfile.text")	Opens the file in write mode
Myfile.writeline ("Hello")	Writes a line to the file
Line1=myfile.readLine()	Reads one line of the file
Myfile.close()	Closes the file
endOfFile()	Used to determine the end of a file

### IF/ELSE AND SWITCH/CASE FOR SELECTION

IF ELSE	SWITCH/CASE
<pre>If choice == "a" then   print("You chose A") elseif choice=="b" then   print("You chose B") else   print("Unrecognised choice")</pre>	<pre>Switch entry: case "A":   print("You chose A") case "B":   print("You chose B") default:   print("Unrecognised choice")</pre>



## 2.2 PROGRAMMING TECHNIQUES CONTINUED

### SUB PROGRAMS

**Procedures** are a set of instructions stored under a name so that you can call the procedure to run the whole set of instructions.

A **function** is like a procedure but always returns a value.

**Parameters** are variables used to pass values into a function or procedure.

A procedure <b>with</b> parameters	A procedure <b>without</b> parameters
<pre>procedure intro (name)     print("Hello " +name)     print("Welcome to the game") endprocedure</pre>	<pre>procedure intro ()     print("Hello")     print("Welcome to the game") endprocedure</pre>

### SQL (Structured Query Language)

SQL is the language used to manage and search databases.

Commands	Example	What it does
SELECT FROM	SELECT name, age FROM students	Displays the name and age of everyone in the students table
WHERE	SELECT name FROM students WHERE gender=male	Displays the name of everyone in the students table who's gender is male
LIKE	SELECT name FROM students WHERE name LIKE "% Smith"	Displays the students' names that end with Smith.
AND	SELECT name FROM students WHERE gender=male AND attendance > 90	Displays the students who are male and have an attendance of more than 90.
*	SELECT * from students	Selects all of the fields from the students table

### RECORDS

Records are a data structure used to store a collection of data. They can store information of different data types.

**Field** = each item in a record is a field. Each field has a name and data type.

A record can be created like this:

```
record students
    int student_number
    string student_name
    bool passed_test
endrecord
```

Data can be assigned using variables:

```
Student1=students(1,"Bob Jones", True)
Student2=students(2,"Steve Smith", False)
Student3=students(3,"Sally Roberts", True)
```

The whole record can be accessed using the variable name:

```
print(Student1)
```

(1, "Bob Jones", True)

or part of a record can be accessed:

```
print(Student3.student_name)
```

Sally Roberts

**Vocabulary of Voice**

**Monotone** – One tone  
**Clarity** – All words are audible and enunciated (said fully and clearly)

**Volume** – Loud or quiet  
**Accent** – Changes in way you say words depending on where you live and/ or social class  
**Pace** (speed), **pause** (stopping for a moment) and **pitch** (high or low)  
**Emphasis** – making certain words stand out

**Intonation** – The rise and fall of the voice  
**Tone** – the feeling in your voice

**Component 1 Questions**

What was your initial response to the stimuli and what were the intentions of the piece?  
 What work did your group do in order to explore the stimuli and start to create ideas for performance?  
 What were some of the significant moments during the development process and when rehearsing and refining the work?  
 How did you consider genre, structure, character, form, style and language throughout the process?  
 How effective was your contribution to the final performance?  
 Were you successful in what you set out to achieve?

**Genre** - a category or 'type' given to plays based upon the conventions used e.g. tragedy, comedy, farce and melodrama.  
**Structure** –The arrangement of, and relationship between, the parts of a play e.g. scenes, acts and cyclical.  
**Character** - a person portrayed in a drama, novel, or other artistic piece.  
**Form and style** – Drama techniques  
**Language** - Words

GCSE DRAMA – COMPONENT 1

**Vocabulary of Physicality**

**Every** – Eye contact: Looking at the audience or another performer  
**Friday** – Facial expressions: using your face to express feelings  
**My** –Movement: moving your body/ body parts from one place to another  
**Naughty** – Non-verbal communication: communicating meaning without using words  
**Brother** – Body language: using your body to communicate meaning  
**Puts** – Pace (speed) and pause (stopping for a moment)  
**Grandma’s** – Gesture – the way you move your hands  
**Massive** – Mannerisms: something someone does with face or body repeatedly  
**Slippers** – Stillness: no movement

**Sentence Stem**

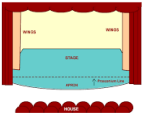



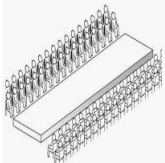

As a performer,  
 As a director,  
 As a designer,  
 Describe – to use drama words to create a picture of what you did/ saw.  
*When we/ I/ they* link to “extract” and describe the drama.  
 Analyse – in depth understanding drawing out layers of meaning.  
 Evaluate – a well justified judgement.  
*This effectively communicates* explain/ analyse the drama with link to purpose/ intentions to the audience.  
 Challenge: Vary evaluative word by identifying what it made the audience think and feel e.g. shocking.

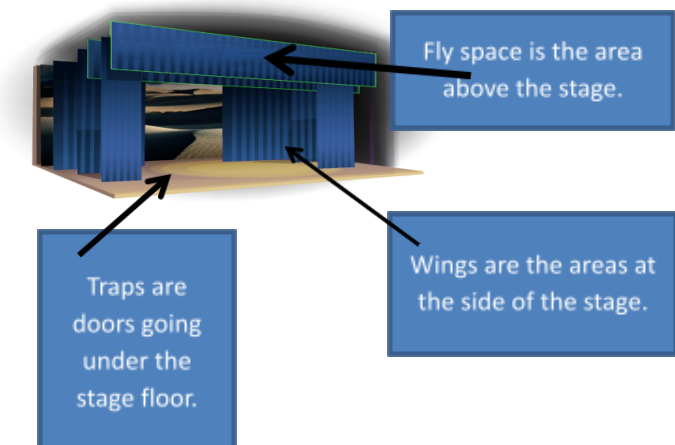
**Self Quiz – LOOK, COVER, WRITE, CHECK & CORRECT**

Use the acronym and mnemonic to help you remember key vocabulary and definitions.  
 Use the definitions to ensure you understand the questions you will answer in your portfolio.  
 Think about recent practical work, use the sentence stems to describe , analyse and evaluate the process and performance.



**GCSE Drama – Theatre**

Stage Type	What does it look like?	Advantages and disadvantages
Proscenium arch		Advantages: Excellent sight lines, excellent staging and set possibilities, traditional form of theatre. Disadvantages: Audience feel removed because of fourth wall, set can be limited to existing structure.
End on		Advantages: Excellent sight lines, more inclusive experience than PA for the audience. Disadvantages: Quite minimal so limits set
Thrust		Advantages: Audience have an immersive and inclusive experience, visually interesting. Disadvantages: sight lines and limited set and staging.
Theatre in the round		Advantages: Audience have an immersive and inclusive experience, visually interesting. Disadvantages: sight lines and limited set and staging.
Traverse		Advantages: Audience have an immersive and inclusive experience, visually interesting, audience can see each other Disadvantages: sight lines mean audience might see two different shows, limited set and staging.
Promenade		Advantages: Audience have an immersive and inclusive experience, locations can complement the work, an alternative theatre experience. Disadvantages: non-linear, fragmented plot, break intension.


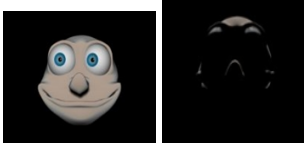











D R A M A

Self Quiz: **LOOK, COVER, WRITE, CHECK & CORRECT**  
 List the stage types and describe the audience position.  
 Identify advantages and disadvantages for both.  
 Draw and label a stage



**Theatre Lighting**

1. Lanterns and lighting states		2. Lighting and lighting angles	3. Colour and effects
<p><b>Fresnel</b> – A common lantern with soft edges. A series of fresnels can evenly cover the stage with light to create a ‘wash’. Coloured gels can be used. Barn doors can be used to focus the light.</p>		<p>Front light    Back light</p> 	 <p>Warm    Neutral    Cool</p>
<p><b>Profile</b> – This lantern is long and thin and can be used to create spotlights. A shutter and gate mechanism allow control over the beam of light to sharp or soft edge. Gobos can be used with profile lanterns.</p>		<p>Down light    Up light</p> 	<p>Coloured lighting gels</p> 
<p><b>Flood</b> – This lantern produces a clear wide-angled light, but there’s little control over the spread of the light. Coloured filters can be used with this lamp.</p>		<p>Side light</p> 	<p>Gobos create patterns</p> 
<p><b>Parcan</b> produces a strong beam of light that is suitable for creating bold colours on stage. Par cans can be identified by their rounded shape. Coloured filters can be used with this lantern.</p>		<p><b>Hand held lighting and pendant bulbs</b> hanging in fly space.</p> 	<p><b>Strobes</b> rapidly pulse to create a special effect (for example to make the actors appear like they are moving in slow motion).</p>

**Keywords:** lantern, lighting states, colour, intensity, soft focus, sharp focus, shadows, series, beam.

Self Quiz – [LOOK, COVER, WRITE, CHECK, & CORRECT lanterns and lighting states table](#)

1. List the reasons lighting is used in theatre.
2. Reflect on a theatre production you’ve seen. Can you identify the lighting used? What was the reason for this decision? What was the effect on the audience?

Context – what was happening at the time the play was written and set		Plot – the story		
<b>1912</b>	<b>1945</b>	<b>Act One</b>	The play opens with a celebratory dinner party. Sheila and Gerald are to be married and Birling and Company will work closer with Crofts Ltd.	
Edwardian era, or 'Golden Age', the time period in which the play is set.	Post WW1 (1914-1918) WW2 (1939-1945) Britain, the time in which the play was written and first performed.		Birling holds court and begins to make a series of statements we, as the audience, know to be fallacious.	
The British Empire – A military power.	Britain suffered the effects of two world wars.		The Inspector enters and informs the party of the suicide of Eva Smith. Starting with Birling, he begins to interrogate the family.	
Britain was a global economic power however high exploitation of working classes.	Two recessions since 1912 resulted in economic instability for all, declining industry and high unemployment.		The Inspector interrogates Sheila and the incident at Milward's is outlined.	
Social Inequality Rigid social hierarchy benefitting upper classes. Little social mobility. No welfare state.	Increased power of working classes through trade unions (an organisation of workers who join forces and become an official organisation working to protect workers' rights e.g. fair pay and better working conditions). Trade unions grew in power in the early 19th century particularly after WW2.		<b>Act Two</b>	The Inspector focuses his line of inquiry towards Gerald and the name Daisy Renton is first introduced. Gerald's affair is exposed.
Conservative and liberal domination in politics for two centuries.	The Labour Party won the General Election in 1924, 1929 and, overwhelmingly, in 1945.			Mrs Birling recounts the request for financial assistance made by a pregnant 'Mrs Birling' and shows no remorse for the refusal that she herself orchestrated.
Support for working classes provided by charities.	Labour introduce the welfare state and the creation of the NHS (1945-48)			The Inspector, via a series of leading questions, induces Mrs Birling to say that the man responsible for the pregnancy should be punished and forced to take responsibility. Eric enters.
Gender inequality. Rigid, stereotypical gender roles. Men had more sexual freedom.	Increased gender equality. Gender roles are less distinct with more women in the workplace to take the roles previously filled by men before the war e.g. police officer. Women won the right to vote in 1928.	<b>Act Three</b>	Eric tells of a series of liaisons and how he has stolen money from Mr Birling to support the mother of an unborn child.	
Deeply entrenched capitalist system.	More awareness of socialism.		The Inspector proportions the blame to each of the characters and performs his final speech.	
Deeply entrenched inequality benefitting Tzars in Russia.	1917 – Russian revolution and the emergence of communist state.		The family squabbles and points fingers. Gerald re-enters to suggest the whole thing was a hoax. The old, and Gerald, take this as a cue to alleviate any responsibility whereas the young are repentant. The phone rings...	
Melodrama and musical comedies are popular for many.	AIC first performed in Russia in 1945 then London in 1946. British theatres bombed and damaged, relocated, opening and closing erratically. Musicals, detective thrillers, Shakespeare revivals and films are popular. Emergence of serious dramas exploring political and social issues. AIC had a mixed response from the audience.			
<b>Dramatic techniques:</b> Tension – a feeling of nervousness, anxiety and excitement; climax – build up of tension; cliff hanger - a dramatic and exciting ending leaving the audience uncertain and creating suspense; dramatic irony – audience aware of something the characters are not; foreshadowing – subtle hints or predictions of later action; symbolism – one thing meaning, or representing, another; didactic – telling/ teaching; status – power or position of a character; coup de theatre (a dramatically sudden action or turn of events); well made play (genre) – popular in 19th century taking the audience and characters on a journey from ignorance to knowledge ending with a return to order; morality play (genre) – allegorical play presenting a lesson about good conduct and character; detective thrillers or 'whodunnit' play (genre) – a detective story in which the audience is given the opportunity to engage in the same process of deduction as the protagonist in the investigation of a crime.				

D R A M A

Daldry's production – You are pretending as a director/ designer that YOU ARE HIM and these are YOUR IDEAS. Do NOT reference him.			
Set description– naturalistic and symbolic	Analysis	Lighting – real lighting and stage lighting	Analysis
Doll's house on stilts.  House opens up at front, steps down to stage floor, house tips and falls, furniture breaks, crockery shatters, performed on/ through wreckage.	Cloistered, unrealistic life of Edwardian upper classes.  Reality and truth exposed; difficult, unsettling to face responsibility and a need for change; less distinct class and gender boundaries.	Priestley's lighting stage direction: "The lighting should be pink and intimate until the INSPECTOR arrives and then it should be brighter and harder." Fresnel lantern with soft pink gel, light from open fire, chandelier, table lamps, candelabra.  Series of Fresnel lanterns creating a wash of strong, cold white light.	Cloistered, celebratory, comfortable, warm.  Then harsh, difficult to hear, interrogation, exposing the truth and reality.
Cobblestones, rubble and debris on stage floor.	War time Britain - time written and first performed; the blitz.	Cyclorama projection: clouds moving, weather changing, night and day.	Creates atmosphere (pathetic fallacy) and sense of time passing.
Cyclorama projection: clouds moving, weather changing, night and day.	Creates atmosphere (pathetic fallacy) and sense of time passing.	Contrast between dimly lit, cool white light on stage with warm glow from doll's house	Contrast in social class, ignorant of the harsh reality of life for many in Edwardian Britain.
Telephone box tilted in stall box, street lamps and radio downstage.	All characteristics of 1940s Britain.	House lights in the auditorium come on for, 'Millions and millions of Eva Smiths...' speech.	Timeless message about equality and collective responsibility applicable for characters and audience.
Costume description	Analysis	Props and stage furniture description	Analysis
<b>Birling men:</b> typical Edwardian dinner dress for men, tail coats, dinner jacket, trousers, waistcoat, pristine white short and white bow tie.	Represents upper social class, wealth, privilege, cloistered, superior and detached.	Inspector's notebook, photograph of Eva.	Interrogation, control and omniscience.
<b>Birling women:</b> Typical Edwardian long evening gowns, satin, lace, beading, chiffon, burgundy, long white gloves, hair pinned up and jewellery (pearls, brooch).	Represents upper social class, wealth, privilege, colourised, superior and detached.	Glasses, cigar.	Represents upper class – social status, wealth, privilege.
<b>Inspector Goole:</b> Typical dress of 1940s, beige trench coat, modest 1940s brown suit and trilby.	From the future, generic class, 1940s a time of economic uncertainty after 2 world wars.	Mahogany dining furniture. Cut glass port glasses and decanter.	Represents upper class – social status, wealth, privilege.
<b>Edna:</b> Drab beige & brown, dress of 1940s, apron, scarf in hair.	A unique position, a servant of time but complicit with IG.	<b>Staging and stage space desc.</b> Doll's house centre stage. Family descends from doll's house for interrogation. Elements of 1940s downstage.	Self-importance, capitalism Hierarchy, facing reality, foreshadowing future. Moving forward, a need for change, audience in future.

**Self Quiz: LOOK, COVER, WRITE, CHECK & CORRECT design description and analysis**

- Can you add another idea for set; lighting; costume; props and stage furniture; and, staging and stage furniture.



### ACCESS FM Analysing a Product

#### Aesthetics

Does the product look good?  
Does it make good use of colour and texture?  
What has inspired its appearance? (E.g. is it organic? Is it industrial?)

#### Cost

What is the estimated cost of the product?  
What is the retail price?  
What is the relationship between the two?  
Is the product affordable?  
Does it offer value for money?  
What is the product's cost in relation to the income of potential buyers/users?

#### Safety

How has the designer considered safety issues in the products design?  
Think about the ways it is being used and how different parts have been joined together.  
Are there any risk assessment issues in relation to the use of the product?

#### Size

Are the product's proportions appropriate for its use?  
If you increased or decreased the products size, would it look or function better?

#### Customer

Who is the product designed for?  
How and where would they use it?  
What effect will it have on their lives and relationships?  
Will it add value?  
How is the product promoted to attract customers?  
Has the designer considered how people will interact with the product?  
Does the product target a particular age group or sector of people?  
What assumptions have been made about the potential buyers/users?

#### Environment

What is the product's impact on the environment?  
What happens to the product after use?  
How long will it last?  
What factors limit/lengthen its life span?  
Can it be repaired? Can parts be replaced?  
How easily can it be recycled?  
Who would pay for the cost of recycling?

#### Function

Does the product do the job it was intended to do?  
How does it work?  
How easy is it to use?  
What effects will using it have, including those beyond intended use and user?

#### Material

What materials are used to make the product and why?  
Would another type of material work better?  
What impact could the designers choice of material have on the environment?  
Where do the materials and other resources needed for production come from?  
Are they likely to run out?

What do you like / dislike about the appearance?	How do you think this design appeals to your target user?	How is this design environmentally friendly / sustainable?	Have you labelled the design with measurements?	Are there any safety issues you need to point out?
What could you do to make this design look better?	<h2>Annotating Design Ideas</h2>			What are the functions/features of this design idea?
What materials are you going to use to create this design?				Why have you chosen these materials?
What joints/fixings will be used to create this design?				How could you make this design safer?
What tools/machines/ processes could be used to create this?				Are there any functions / features you could add?
What could you do to make this design more sustainable?	What finishes would you apply to this design to achieve its appearance?	What could you improve about the design?	Why are you using the materials you have suggested?	How are you going to make sure it is accurate?

### Evaluating and testing - Testing and evaluation should be continually carried out and used to modify a designer's ideas throughout the whole iterative design process

Client feedback - Have a clear idea of what the target users are looking for, initial ideas may have been misinterpreted

Target market feedback - Honest and critical feedback at the prototype stage can offer developments

Expert opinion - Professionals in industry can provide insightful and appropriate feedback

Analysing testing results - To record their findings, designers will take pictures and written notes from observations of users operating or wearing their product, as well as gathering users' opinions on this experience.

Qualitative data - is information that cannot be measured and is often based on opinion, for example favourite colour

Quantitative Data - is information that can be measured and written down with numbers, for example length

Face to face - **conversational interviews** give designers the chance to ask questions and help users form an opinion by offering options for new iterations

Against specification - This is where a specific list of **criteria** is written that a designer can follow as a set of rules. During the iterative design process, this specification should be referenced to and designs evaluated against it to ensure the final solution is the best fit.

#### What are you describing?

- Line
- Colour
- Shape
- Form
- Pattern
- Decoration
- Surface
- Texture
- Space
- Functional elements
- Prototype
- Features
- Motion

- harmony
- balance
- emphasis
- neutral
- integrated

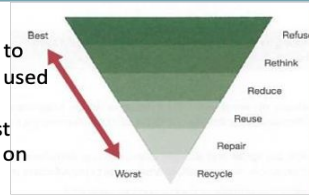
#### Descriptive words

- feminine - masculine
- aggressive - submissive
- old - young
- cold - warm
- comfortable - uncomfortable
- excited - calm
- strong - weak
- soft - hard
- organic - mechanical
- smooth - sharp
- flat - curved
- straight - fluid
- functional - ornamental
- detailed - plain
- volume/ bulbous/ bulging
- unified
- stylized
- peculiar
- rare
- innovative/novel/radical
- unity

## Sustainability and the 6 R's

### The 6 R's

The 6 Rs 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.




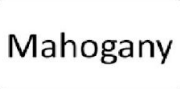


# Materials

## 1. Woods


### Man-Made Woods

 Medium density fibreboard (MDF)	<b>Description</b> •Has a smooth, even surface •Easily machined and painted •Available in water and fire-resistant form •Often veneered or painted to improve its appearance	<b>Uses</b> •Furniture and interior panelling
 Chipboard	<b>Description</b> •Made from chips of wood glued together with urea formaldehyde (glue) •Usually veneered with an attractive hardwood or covered in plastic laminate	<b>Uses</b> •Kitchen and bedroom furniture •Shelving and general DIY Work
 Plywood	<b>Description</b> •A very strong board, constructed of layers of veneer or plies, which are glued together with the grains at 90° to each other •Interior and exterior grades available.	<b>Uses</b> •Furniture making •Boat building and exterior work
 Hardboard	<b>Description</b> •A very cheap particle board •Can have a laminated plastic surface	<b>Uses</b> •Kitchen unit and furniture back panels







### Hard Woods

 Oak	<b>Description</b> •A very strong, light-brown wood •Open grained •Very hard, but quite easy to work with	<b>Uses</b> •High quality furniture •Beams used in building •Veneers
 Mahogany	<b>Description</b> •Reddish-brown in colour •Easy to work with	<b>Uses</b> •Indoor furniture •Shop fittings •Bars •Veneers
 Beech	<b>Description</b> •A straight-grained hardwood with a fine texture •Light in colour •Very hard but easy to work with •Can be steam bent.	<b>Uses</b> •Furniture •Toys •Tool handles
 Ash	<b>Description</b> •Open grained •Easy to work with •Pale cream colour, often stained black •Can be laminated (i.e. sliced into veneers which are glued together)	<b>Uses</b> •Tool handles •Sports equipment •Furniture •Ladders •Veneers

### Soft Wood

 Pine	<b>Description</b> •Pale-yellow coloured with dark lines and a fine, even texture. •Medium in weight •Stiff and stable •Inexpensive	<b>Uses</b> •Readily available for DIY work •Mainly used for constructional work and simple joinery •Furniture
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## 2. Plastics

 Acrylic	<b>Properties:</b> • <b>Hard wearing</b> • <b>Will not shatter</b> • <b>Can be coloured</b> • <b>Bathtubs, School Projects, Display signs</b>
 Polypropylene	<b>Properties:</b> • <b>High impact strength</b> • <b>Softens at 150°C</b> • <b>Can be Flexed many times without breaking</b> • <b>School chairs, Crates</b>
 High Impact Polystyrene (HIPS)	<b>Properties:</b> • <b>Light but strong</b> • <b>Widely available in sheets</b> • <b>Used for casings of electronic products</b>
 Polythene (LDPE)	<b>Properties:</b> • <b>Weaker and softer than HDPE.</b> • <b>Lightweight</b> • <b>Carrier Bags + Squeazy Bottles</b>
 Polythene (HDPE)	<b>Properties:</b> • <b>Stiff strong plastic</b> • <b>Used for pipes and bowls</b> • <b>Buckets</b>
 Urea formaldehyde	<b>Properties:</b> • <b>Colourless plastic</b> • <b>Can be coloured</b> • <b>Door and cupboard handles, Electrical fittings</b>



## 3. Material Properties

<b>Strength</b> The ability of a material to stand up to forces being applied without it bending, breaking, shattering or deforming in any way.
<b>Elasticity</b> The ability of a material to absorb force and flex in different directions, returning to its original position.
<b>Ductility</b> The ability of a material to change shape (deform) usually by stretching along its length.
<b>Malleability</b> The ability of a material to be reshaped in all directions without cracking.
<b>Hardness</b> The ability of a material to resist scratching, wear and tear and indentation.
<b>Toughness</b> A characteristic of a material that does not break or shatter when receiving a blow or under a sudden shock.

## 3. Metals

 Aluminium	<b>Properties:</b> • <b>Light Weight</b> • <b>Light grey in colour</b> • <b>Can be polished to a mirror like appearance</b> • <b>Rust resistant</b>	 Mild Steel
 Stainless Steel	<b>Properties:</b> • <b>Heavy</b> • <b>Dark grey in colour</b> • <b>Rusts very quickly if exposed</b>	 Cast Iron
 Copper	<b>Properties:</b> • <b>Be melted pig iron with some quantities of other metals</b> • <b>Strong in compression.</b> • <b>Brittle</b>	 Brass
 Brass	<b>Properties:</b> • <b>Reddish brown metal.</b> • <b>Soft</b> • <b>Excellent conductor of heat and electricity</b>	
 Brass	<b>Properties:</b> • <b>Yellow metal</b> • <b>Hard</b> • <b>Alloy</b>	

## 4. Composites

Carbon Fibre	GRP Fibreglass
Expensive in comparison to other materials.	GRP is composed of strands of glass which are woven to form a flexible fabric. The fabric is normally placed in a mould and polyester resin is added.
Very good strength to weight ratio.	Glass reinforced plastic is lightweight and has good thermal insulation properties. It has a high strength to weight ratio
Used in the manufacture of high end sports cars and sports equipment.	
	



# Papers and Boards

## 1. Paper

Type	Description and uses
Layout paper	<ul style="list-style-type: none"> <li>lightweight, thin white paper</li> <li>used for initial ideas</li> <li>takes colour media well</li> <li>low cost</li> </ul>
Tracing paper	<ul style="list-style-type: none"> <li>thin, translucent paper</li> <li>making copies of drawings</li> <li>high cost</li> </ul>
Cartridge paper	<ul style="list-style-type: none"> <li>good quality white paper</li> <li>available in different weights</li> <li>general purpose work</li> <li>can be used to make simple models</li> <li>medium cost</li> </ul>
Bleedproof paper	<ul style="list-style-type: none"> <li>smooth, hard paper</li> <li>used with water-based and spirit-based felt-tip pens</li> <li>medium cost</li> </ul>
Grid paper	<ul style="list-style-type: none"> <li>printed square and isometric grids in different sizes</li> <li>a guide for quick sketches and working drawings</li> <li>low cost</li> </ul>

## 2. Selection of materials or components

When selecting materials and components considering the factors listed below:

- Functionality: application of use, ease of working
- Aesthetics: surface finish, texture and colour.
- Environmental factors: recyclable or reused materials, product mileage.
- Availability: ease of sourcing and purchase.
- Cost: bulk buying.
- Social factors: social responsibility.
- Cultural factors: sensitive to cultural influences.
- Ethical factors: purchased from ethical sources such as FSC.

What is the FSC? <http://www.fsc-uk.org/en-uk/about-fsc/what-is-fsc/fsc-principles>

## 3. Boards

Type	Description and uses
Corrugated card	<ul style="list-style-type: none"> <li>strong and lightweight</li> <li>used for packaging protection and point of sale stands</li> <li>available in different thicknesses</li> </ul>
Duplex board	<ul style="list-style-type: none"> <li>large foam-based board</li> <li>different finishes available including metallic and hologrammatic</li> <li>used for food packaging, e.g. take-away pizza boxes</li> </ul>
Foil lined board	<ul style="list-style-type: none"> <li>quality cardboard with a aluminium foil lining</li> <li>ideal for ready made meals or take away meal cartons</li> <li>The foil retains the heat and helps keep the food warm</li> </ul>
Foam core board	<ul style="list-style-type: none"> <li>very light, very stiff and very flat.</li> <li>It has a white, rigid polystyrene foam centre, with smooth white paper laminated onto both faces.</li> <li>It is easy to cut with a knife, a mount cutter or on a wall cutter</li> <li>great for modelling</li> </ul>
Ink jet card	<ul style="list-style-type: none"> <li>Has been treated so that it will give a high quality finish with inkjet ink</li> <li>available in matt and gloss</li> </ul>
Solid white board	<ul style="list-style-type: none"> <li>top quality cardboard made from quality bleached wood pulp.</li> <li>used for hard backed books and more expensive items</li> <li>excellent print finish</li> </ul>

## 4. Paper and Boards- Stock sizes and weights

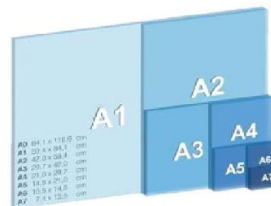
Paper and board is available in sizes from A0 (biggest) to A7 (smallest). The most common size is A4.

Each size is half the one before, eg A4 is half the size of A3.

They are also sold by weight:

GSM – grams per square metre.

Card thickness or calliper is traditionally measured in Microns. 1000 Microns = 1mm, so the higher the value, the thicker the card or paper.



## 5. Properties of paper and boards.

Type	Weight or thickness	Uses	Relative cost (10= high)
Newsprint	50gsm	Newspapers	1
Layout Paper	60gsm	Sketches and tracing	3
Tracing Paper	70 gsm	Tracing	4
Sugar Paper	90gsm	Cheap mounting work	2
Inkjet/Photo paper	150-230gsm	Photos/Presentations	9
Board (Card)	230-750 microns	Model-making	5
Mount Board	230-1000 microns	Model-making, High picture quality mounting	9
Corrugated Card	3000-5000 microns	Packaging protection	5

## 7: KEY WORD FOCUS

You should be able to explain the meaning of each of these words by the end of this rotation.

<b>GSM</b>	Grams per Square Metre
<b>Microns</b>	Thickness of paper or card. 1000microns = 1mm thickness

# Textiles

## 1. Fabrics

### Natural Fabrics

Cotton	Soft, good absorbency, prints well, machine washable, strong breathable	Origins from the Cotton Plant.	Uses: Jeans, towels, Shirts, dresses, underwear
Wool	High UV protection, flameproof, breathable, durable insulating	Origins from Sheep.	Uses: Jumpers, Coat, blankets
Silk	Smooth, Soft, Strong	Origins from the silk worm.	Uses: Wedding dresses, lingerie.
Linen	Strong, cool in hot weather	Origins from the flax plant	Uses: Trousers, tops.
Leather/Suede	Strong, hardwearing, durable.	Origins from the skin of animals, mainly cows.	Uses: Jackets, Trousers, Shoes.

### Synthetic fabrics

Polyester	Durable, wrinkle resistant, stain resistant	Uses: Shirts, jackets. Also used in safety belts, conveyor belts and tyre reinforcement.
Polyamide (Nylon)	Durable, high abrasion resistance	Uses: Sportswear, carpets.
Elastane (Lycra)	Stretchy, durable, high stain resistance	Uses: Sportswear, Swimwear, tights.
Viscose	Soft, comfortable, absorbent, easily dyed.	Uses: Dresses, linings, shorts, shirts, coats, jackets and outerwear.
Acrylic	Absorbent, retains shape after washing, easily dyed, resistance to sunlight.	Uses: Jumpers, tracksuits, linings in boots.

## 1. Fabrics

### Blended and mixed Fabrics

These fabrics take on the positive characteristics of their combinations


Cotton/Polyester	Easy care and crease resistant	Uses: School shirts.
------------------	--------------------------------	----------------------

## 2. Fabric Construction



### Woven

Plain Weave	Extremely strong and hard wearing	
Twill Weave	Extremely high strength and abrasion resistant.	


### Knitted

Knitted fabrics	Stretchy, soft and comfortable.	
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
### Non-Woven

Bonded Fabrics	These are webs of fibres held together by glue or stitches.	
Felted Fabrics	Felt is made by combining pressure, moisture and heat to interlock a mat of wool fibres.	


## 3. Care Labels

 Washing Label will usually have a max. temp number included

 Hand Wash only

 Do not wring out

 Tumble Dry

 Iron on low heat. The more dots the higher the heat setting

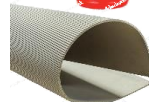
 Do not bleach

# Smart and Modern Materials

## 1. Modern Materials

**1. Corn Starch Polymers** – plastics that are **biodegradable** and not toxic to the environment. They are easy to recycle.

Name	Uses	Characteristics
Polylactic acid (PLA)	<ul style="list-style-type: none"> <li>Disposable food and drink containers</li> <li>3D Printed Items</li> </ul>	<ul style="list-style-type: none"> <li>Smooth or textured finish.</li> <li>Easy to Colour</li> <li>Easy to mould</li> <li>Fully biodegradable</li> </ul>
Polyhydroxybutyrate (PHB) Biopol™	<ul style="list-style-type: none"> <li>Bottles</li> <li>Pots</li> <li>Disposable food containers</li> </ul>	<ul style="list-style-type: none"> <li>Smooth or textured finish.</li> <li>Easy to Colour</li> <li>Easy to mould</li> <li>Fully (but slowly) biodegradable.</li> </ul>



**2. Flexible MDF** – Is made from wood pulp fibres in the same way as standard MDF, with the addition of grooves cut along the length of the board leaving about 2mm of the MDF intact which allows the MDF to become flexible.

**3. Titanium** – Pure titanium does not react with the human body and is used by the medical profession for artificial joints and dental implants. It has a high strength to weight ratio and has excellent corrosion resistance.

**4. Graphene** – thinnest material ever discovered, a million times thinner than a human hair, 200 times stronger than steel. It is transparent, impermeable and highly conductive.

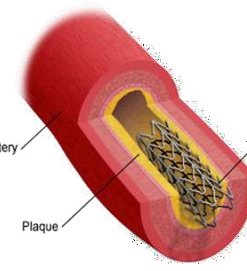
**5. Nanomaterials** - Their use in electronics has helped miniaturisation whilst improving conductivity. IN the textiles industry, they have been used as protective coatings to improve water resistance and give UV protection.

**6. Metal Foams** - Porous metal structures, often made from Titanium and Aluminium use as little as 25% of the mass. This makes them extremely lightweight but retaining most of the properties of the base material.

## 2. Smart Materials

A material that reacts to an external stimulus or input to alter its functional or aesthetic properties.. They can react to heat, light, pressure, moisture and electricity.

Name	Stimulus	What is does?	Uses
2.1 Thermochromic pigments	Heat	Changes colour when heat is applied.	<ul style="list-style-type: none"> <li>Flexible thermometers</li> <li>Temperature indicators</li> <li>Novelty goods</li> </ul>
2.2 Photochromic pigments & particles	UV Light (Natural Light)	Changes colour in sunlight/UV Light	<ul style="list-style-type: none"> <li>Transition Lens Sunglasses</li> <li>Nail varnish</li> <li>Clothing</li> <li>Novelty goods</li> </ul>
2.3 Shape memory alloy	Heat or Electricity	Returns to original/pre set shape when heated to 70°C or electricity is applied.	<ul style="list-style-type: none"> <li>Glasses Frames</li> <li>Fire Sprinklers</li> <li>Dental Braces</li> <li>Surgical Stents</li> </ul>
2.4 Polymorph	Heat	Becomes mouldable by hand when heated to 62°C	<ul style="list-style-type: none"> <li>Personalisation of products</li> <li>Repairs</li> <li>Prototyping &amp; Modelling</li> </ul>
2.5 Quantum Tunnelling Composite	Pressure	Varies the amount of electrical current depending on pressure applied.	<ul style="list-style-type: none"> <li>Touch sensitive pads</li> <li>Wearable technology</li> <li>Variable speed controls</li> </ul>
2.6 Piezoelectric Material	Movement, stress or electricity	Stress or movement produces electrical signal or <i>vice versa</i> .	<ul style="list-style-type: none"> <li>Mobile phone speakers and microphones</li> <li>Gas Lighters ignition spark</li> </ul>
2.7 Litmus Paper	Levels of PH in substances.	Changes colour depending on chemical balance.	<ul style="list-style-type: none"> <li>Scientific experiments</li> <li>Soil testing for gardener/farmers</li> <li>Testing swimming pools and fish tanks</li> </ul>



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## New and Emerging Technologies

New technologies are those that are currently being developed or will be developed in the next 5 to 10 years, and which will alter the business and social environment.

Examples: **Fuel-cell vehicles** Zero-emission cars that run on hydrogen.



### Additive manufacturing

The future of making things, from printable organs to intelligent clothes



## Automation and the use of robotics

As industry has grown new and emerging technologies have changed the way designers, architects and engineers work.

Intelligent machines and robotics have replaced machine operators and engineers.

The development of work now almost always involves the use of **Computer Aided Design (CAD)**.

This software can carry out complex tasks such as virtual stress testing this is called **Computer Aided Testing (CAT)**.

Designs can be produced to look 3D so customers can give opinions before **prototyping** begins.

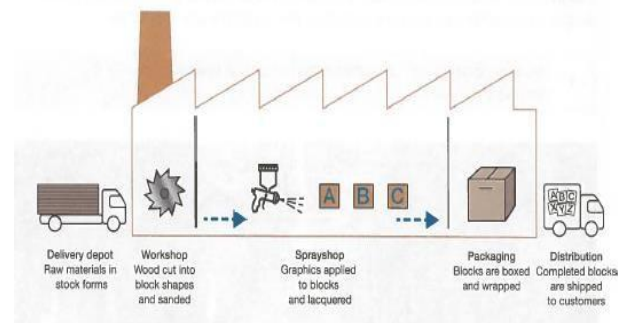
## Buildings and the place of work

The development of the internet has changed how data is transferred. This has led to people being able to work together remotely (from different buildings or countries).

Projects can be sent to machines using **computer aided manufacturing (CAD)** techniques including **computer numerical control (CNC)** machines such as laser cutters and rapid prototyping (RPT) machines such as 3D printers.

Physical layout of buildings for production should be logical to increase efficiency. This will reduce unproductive time, movement and waste materials.

Here is an example of a simplified production line that might produce wooden blocks.



## Enterprise

An idea that is developed into a business proposal for a product that has commercial viability.

Products developed in this way require a patent to protect the idea so that other companies cannot use it without permission this is called a registered trademark.



## Co-operatives

A farm, business, or other organization which is owned and run jointly by its members, who share the profits or benefits.

## Crowdfunding

Funding a project or venture by raising money from a large number of people who each contribute a relatively small amount, typically via the Internet.

## Virtual marketing and retail

Virtual marketing the use of search engines positioning and ranking, banner advertising, e-mail marketing and social media in order to reach a wider audience to promote a product.



## Fairtrade

Trade between companies in developed countries and producers in developing countries in which fair prices are paid to the producers.

## People, Culture and Society

### People

**Consumer Choice**

Growth of global manufacturing has led to a wider variety of products being available, prices of products are kept low because of the wider competition.

**Technology Push**

Advances in technology and science lead to the development of new products. Research and Development (R&D) Departments are used within large companies to ensure they can create new and exciting products.

1993 APPLE NEWTON PDA



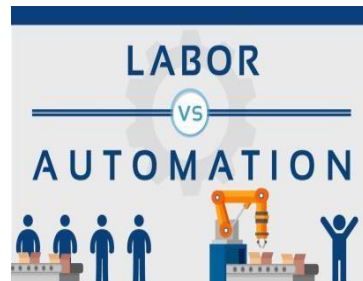
1996 PALM SERIES



2012 SAMSUNG GALAXY



Advances in touchscreen technology



### Society

Companies putting the environment and people before profit. Examples:

- Carbon Neutral Products
- Use of renewable materials
- Reduction of carbon emissions/greenhouse gasses
- Use of recycled materials
- Products designed to be 100% recyclable
- Promotion of Fairtrade
- Reduction of transportation
- Non profit organisations that reinvest money to support good causes
- Consideration to designing products for the elderly or disabled
- Consideration to different religious groups

**4 main ways to consider the population when designing**

Type of Production	Example
One size fits all	Door Frames Baths
A range of sizes to cover all	Shoes Clothes
Adjustability to allow use by all	Car Seats Shower head height
Adaptability to support location or user	Children’s booster seats Car roof bars

### Culture

A combination of ideas, beliefs, customs and social behaviours of a society or group of people.

**Fashion and Trends**

Designers developing products that are influenced by ‘the latest thing’.


**Faiths and Beliefs**

Designers being responsible for the impact their design choices may have on a community.

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## Production techniques

### 1. CAD – Computer Aided Design

Advantages of CAD	Disadvantages of CAD
Designs can be created, saved and edited easily, saving time	CAD software is complex to learn
Designs or parts of designs can be easily copied or repeated	Software can be very expensive
Designs can be worked on by remote teams simultaneously	Compatibility issues with software
Designs can be rendered to look photo-realistic to gather public opinion in a range of finishes	Security issues - Risk of data being corrupted or hacked
CAD is very accurate	 CAD Software
CAD software can process complex stress testing	

### 2. CAM – Computer Aided Manufacturing

Advantages of CAM	Disadvantages of CAM
Quick – Speed of production can be increased.	Training is required to operate CAM.
Consistency – All parts manufactures are all the same.	High initial outlay for machines.
Accuracy – Accuracy can be greatly improved using CAM.	Production stoppage – If the machines break down, the production would stop.
Less Mistakes – There is no human error unless pre programmed.	Social issues . Areas can decline as human jobs are taken.
Cost Savings – Workforce can be reduced.	



Laser Cutter



Robots



Barcode Scanner



AGV – Automated Guided Vehicle

### 3: Production Techniques

**3.1 Flexible Manufacturing Systems (FMS) :** involves an assembly of automated machines commonly used on short-run batch production lines where the products frequently change.

**3.2 Lean Manufacturing:** It aims to manufacture products just before they are required to eliminate areas of waste including:

- Overproduction
- Waiting
- Transportation
- Inappropriate processing
- Excessive inventory
- Unnecessary motion
- Defects

**3.3 Just In Time (JIT) :** Items are created as they are demanded. No surplus stock of raw material, component or finished parts are kept.

Advantages of JIT	Disadvantages of JIT
No warehousing costs	Reliant on a high quality supply chain
Ordered secured before outlay on parts is required	Stock is not available immediately off-the-shelf
Stock does not become obsolete, damaged or deteriorated	Fewer benefits from bulk purchasing

### 4. Scales of Production

**One off:** when you make a unique item

**Batch:** when you make a few/set amount

**Mass:** when you make thousands

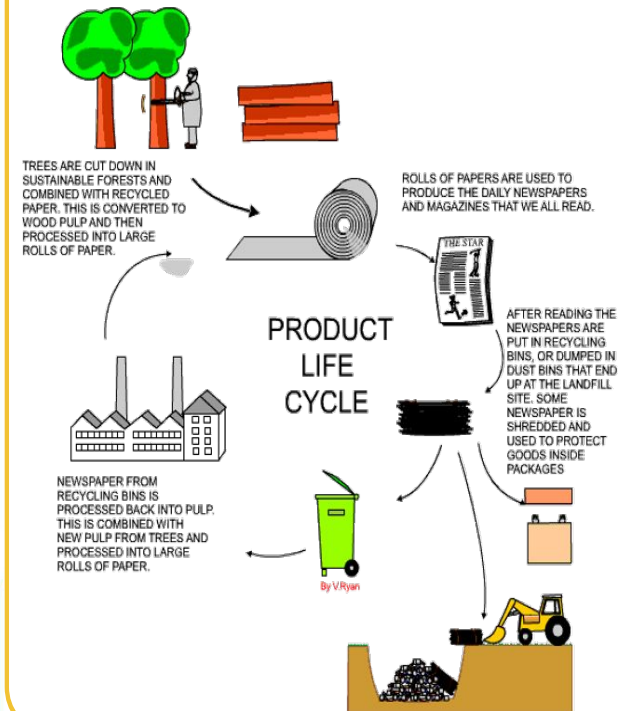
**Continuous:** open ended production

**1.Planned obsolescence -** Planned obsolescence is when a product is deliberately designed to have a specific life span. This is usually a shortened life span.

**2.Design for maintenance -** Products are often designed to be thrown away when they fail... This can be achieved by designing products that can be repaired and maintained.

**3.Disposability –** Some products are designed to be disposable.

**4. Product Lifecycle -**

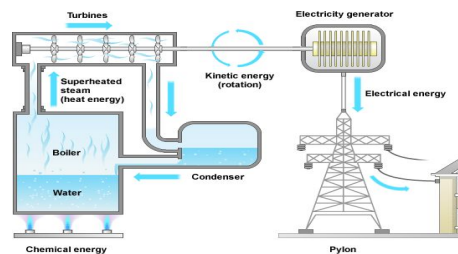




# Energy systems

## Energy Types

### 1. Fossil Fuels – Non-renewable energy

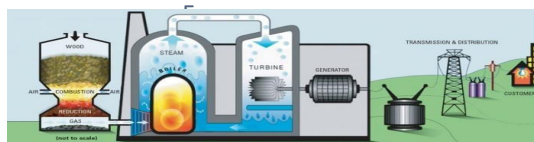


In a thermal power station fuel such as coal, oil or gas is burned in a furnace to produce heat - chemical to heat energy.

- this heat is used to change water into steam in the boiler.
- the steam drives the turbine - heat to kinetic energy
- this drives the generator to produce electricity - kinetic to electrical energy.

Some experts believe that fossil fuels will run out in our lifetime.

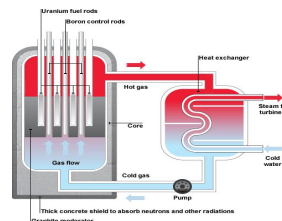
## Energy Types 2. Biomass Energy –Renewable



**Biomass** is an industry term for getting energy by burning wood, and other organic matter. Burning biomass releases carbon emissions, but has been classed as a renewable energy source in the EU and UN legal frameworks, because plant stocks can be replaced with new growth.

## 3. Nuclear Energy – Renewable energy

### Energy Types



The main nuclear fuels are **uranium** and **plutonium**. In a nuclear power station nuclear fuel undergoes a controlled chain reaction in the reactor to produce heat - nuclear to heat energy.

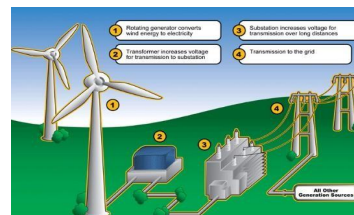
- heat is used to change water into steam in the boiler.
- the steam drives the turbine (heat to kinetic energy)
- this drives the generator to produce electricity - kinetic to electrical energy.

## Energy Types

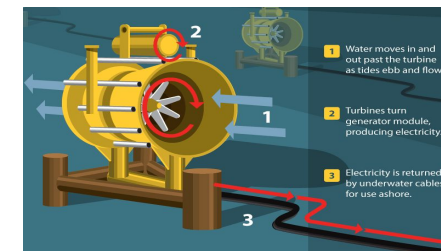
### 8. Batteries

**Alkaline batteries** are the most common type of domestic batteries, they are disposable but contain chemicals that are bad for the environment. Fortunately more and more battery recycling banks are appearing now where most of the battery can be reused. **Rechargeable batteries** are better for the environment and more economical in the long run (High initial purchase price). Their lifespan decreases with every charge.

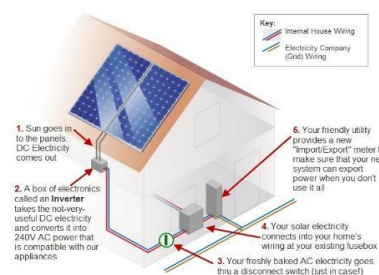
## Energy Types 4. Wind energy



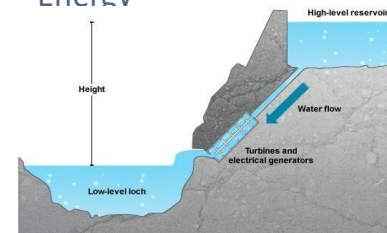
## Tidal energy



## 5. Solar Energy – Renewable Energy



## 7. Hydroelectricity – Renewable Energy











- In a hydroelectric power station water is stored behind a dam in a reservoir. This water has gravitational potential energy.
- The water runs down pipes (potential to kinetic energy) to turn the turbine
- The turbine is connected to a generator to produce electricity (kinetic to electrical energy).

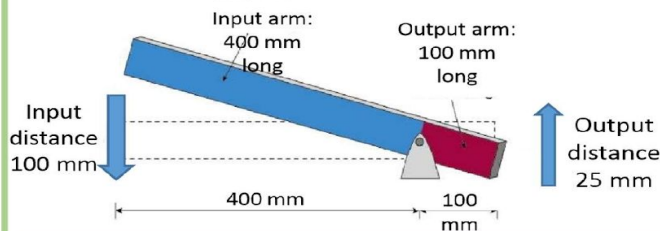
# Mechanical devices

## 1: Mechanical Devices - Motion

There are four types of motion:

<b>Linear Motion</b> is movement in one direction along a straight line.		
<b>Oscillating Motion</b> This motion is similar to reciprocating motion, but the constant movement is from side to side along a curved path.		
<b>Rotary Motion</b> Examples of circular motion include a ball tied to a rope and being swung round in a circle		
<b>Reciprocating Motion</b> , this is repetitive up-and-down or back-and-forth linear motion		

## 4: How to work out a levers distance of travel



$$\text{Output} \div \text{Input} \times \text{Input distance} = \text{Output distance}$$

$$100 \div 400 \times 100 = 25 \text{ mm}$$

## 2: Mechanical Devices – Levers

There are three classes of levers.

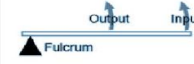
### Class One

A class one lever has its input on one side of the fulcrum and its output on the other.



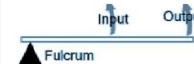
### Class Two

A class two lever has its input at one end of the lever, its output in the middle and fulcrum at the other end.



### Class Three

A class three lever has its output at one end of the lever, its fulcrum at the other with its input in the middle.

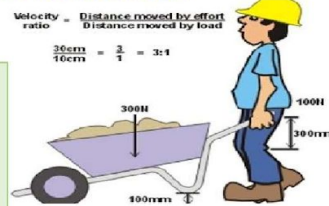


## 5: How to work out the Mechanical Advantage

Or use the following formula:

$$MA = \frac{\text{Load}}{\text{Effort}} = \frac{300N}{100N} = 3$$

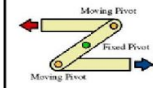
This is written as 3:1 or just MA of 3



## 3: Mechanical Devices – Linkages

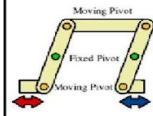
### Reverse motion linkage

The reverse motion linkage changes the direction of the input motion so that the output travels in the opposite direction. If the input is pulled the output pushes and vice versa. It uses a central bar held in position with a fixed pivot (fulcrum) that forces the change in direction and two moving pivots which are connected to the input and output bars.



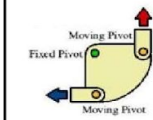
### Parallel motion or push/pull linkage

The push/pull linkage maintains the direction of the input motion so that the output travels in the same direction. If the input is pulled the output is pulled and so on. It uses three linking bars, four moving pivots and two fixed pivots.



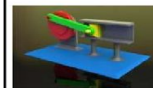
### Bell crank linkage

The bell crank linkage changes the direction of the input motion through 90 degrees. It can be used to change horizontal motion into vertical motion or vice versa. It uses a fixed pivot and two moving pivots.



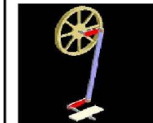
### Crank and slider

The crank and slider linkage changes rotary motion into reciprocating motion or vice versa. It uses a crank which is held with a fixed pivot. A connecting rod uses two moving pivots to push and pull a slider along a set path.



### Treadle linkage

The treadle linkage changes rotary motion into oscillating motion or vice versa. It uses a crank which is held with a fixed pivot. A connecting rod uses two moving pivots and a further fixed pivot to create a windscreen wiper motion.



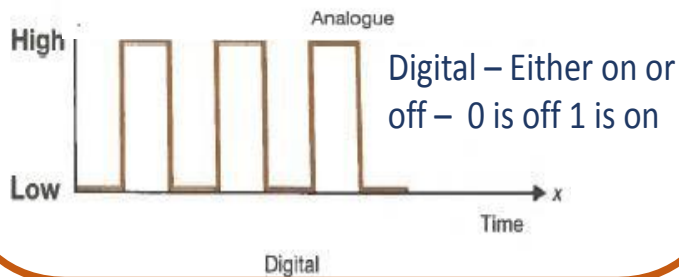
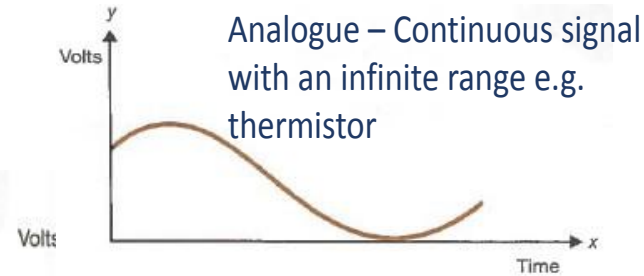
# Electronic systems and processing

## 1. Processes

Components that process electronic signals and enable output devices to perform tasks. This is controlled by an integrated circuit (IC) e.g. A microcontroller



## 2. Digital and Analogue Signals



## 3. Counters

Counters – Keep count of how many times something occurs, output information to a seven segment display.



## 4. Programming

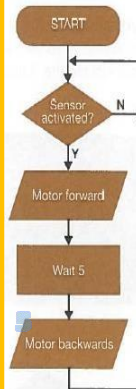
Micro controllers also called Peripheral interface controllers (PICs) can be programmed to perform differently by a computer.

### Timers

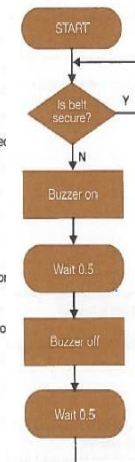
Devices used to perform specific tasks. 2 types monostable and astable.

**Monostable** – output turned on for a set period of time e.g. Automatic doors

**Astable** – fluctuates between on and off – oscillating output e.g. Seat Belt alarm in a car



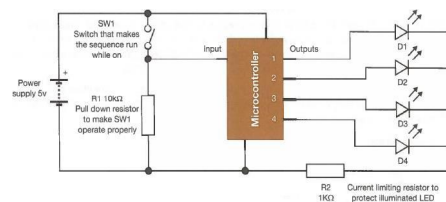
**Start:**  
**Decision:** Has the motion sensor (PIR) connected to the input been activated?  
 If NO, continue to wait for the PIR to be triggered by movement.  
 If YES, continue with the program.  
**Output:** The motor turns on and opens the doors.  
**Process:** Delay for 5 seconds; the motor is on long enough to open the door and let people through.  
**Output:** The motor turns on again in reverse and the doors automatically close.  
 The circuit loops back to the top awaiting the next trigger of the PIR.



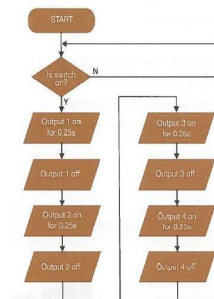
**Start:**  
**Decision:** Has the seatbelt been fixed into the seatbelt clip?  
 If YES, loop back to the start of the program.  
 If NO, continue with the program sequence.  
**Output:** The buzzer turns on.  
**Process:** Delay for 0.5 seconds; the buzzer stays on during this time.  
**Output:** The buzzer turns off.  
**Process:** Delay for 0.5 seconds; the buzzer stays off during this time.  
 The circuit loops back to the top to check if the driver still has seatbelt unfastened.

## 5. Programming 2

Microcontrollers – How a microcontroller would control a bike light.



Program for the microcontroller to make LED's flash in sequence



**Start:**  
**Decision:** Has the lighting sequence start switch connected to the input been activated?  
 If NO, continue to wait for the switch to be triggered by the user.  
 If YES, continue.  
**Output and process:** The first LED connected to output 1 turns on for 0.25 seconds.  
**Output:** The first LED connected to output 1 turns off.  
 These steps repeat for LEDs 2, 3 and 4.  
 The circuit loops back to the top to check if the switch has been activated.



<b>Economic Growth</b>	<b>DPRO27: I can accurately explain what is meant by economic growth</b>		
<b>What I need to do:</b> <input type="checkbox"/> I can explain what is meant by economic growth. <input type="checkbox"/> I can calculate and explain how economic growth is measured. <input type="checkbox"/> I can analyse recent and historical GDP data.	<b>Words I need to say:</b>		
	<input type="checkbox"/> Economic Growth	<input type="checkbox"/> GDP per capita	<input type="checkbox"/> Gross Domestic Product (GDP)

**Knowledge I need to learn:**

<p><b>What is economic growth?</b></p> <ul style="list-style-type: none"> <li>- <b>Economic Growth</b> is the increase in the <b>gross domestic product (GDP)</b> of a country over time.</li> <li>- <b>Gross Domestic Product (GDP)</b> is the total value added of goods and services produced in the country in a year.</li> <li>- Therefore, economic growth is the increase in the value of output of a country.</li> <li>- The total value of output becomes incomes for those who produce it.</li> <li>- These incomes are in the form of wages, profits, interest and rent.</li> </ul>	<p><b>How is economic growth measured with reference to gross domestic product (GDP) and GDP per capita?</b></p> <p><b>Economic/GDP growth rate</b> = Change in GDP/Original GDP X 100                  Here is an example:                  Imagine if a country has a GDP of £500 billion and the next year it rises to £510 billion, then the rate of growth is:</p> <p><math>£10 \text{ billion} / £500 \text{ billion} \times 100 = 2\%</math></p> <p><b>What is GDP per capita?</b></p> <ul style="list-style-type: none"> <li>- <b>GDP per capita</b> is GDP divided by the population.</li> </ul> <p>If a country has a GDP of £500 billion and population of 100 million people, then the GDP per capita would be:</p> <p><math>£500 \text{ billion} / 100 \text{ million} = £5,000 \text{ GDP per capita.}</math></p> <p><b>Analysing Recent and Historical GDP data</b>  <b>Boom:</b> A period of high economic activity and high levels of employment.  <b>Recession:</b> A period of time when the country's GDP decreases for two or more consecutive financial quarters.</p>
<p><b>Questions I need to answer:</b></p> <ul style="list-style-type: none"> <li>- What is the meaning of economic growth?</li> <li>- What is gross domestic product (GDP)?</li> <li>- What is GDP per capita?</li> <li>- How is GDP growth calculated?</li> <li>- What is a recession?</li> </ul>	

<p><b>Determinants of Economic Growth</b></p>	<p><b>DPRO29:</b> I can accurately analyse the determinants of, and evaluate the costs and benefits of, economic growth.</p>		
<p><b>What I need to do:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> I can accurately analyse the determinants of, and evaluate the costs and benefits of, economic growth.</li> </ul>	<p><b>Words I need to say:</b></p>		
	<ul style="list-style-type: none"> <li><input type="checkbox"/> Economic Growth</li> <li><input type="checkbox"/> Investment</li> <li><input type="checkbox"/> Education and Training</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Labour Force</li> <li><input type="checkbox"/> Labour Productivity</li> <li><input type="checkbox"/> Natural Resources</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Government Policies</li> <li><input type="checkbox"/> Size of the Workforce</li> </ul>

**Knowledge I need to learn:**

**Investment:**  
This is spending on capital goods (premises, machinery and equipment). More investment means that the economy can produce more goods and services.

**Changes in Technology:**  
Technological progress means the quality of capital goods improves, and a given quantity of capital can now produce more output than before.

**Education and Training:**  
This affects the quality and quantity of the work done. The more literate educated, trained and skilled the workers, the higher the output of the country may be.

**Labour Productivity**  
**Labour Productivity** can be measured in output per worker over a period of time. Higher productivity will encourage economic growth. Labour productivity is largely affected by investment, technological progress and education and training.

- Questions I need to answer:**
- How might a loss of land, due to climate change, affect economic growth?
  - How might an in apprenticeships and training schemes affect economic growth?
  - How might faster broadband infrastructure affect a country's economic growth?

**Size of the workforce:**  
The economy can produce more if it has more of the factor of production known as labour.

**Natural Resources:**  
If a country discovers or develops natural resources, this can be a stimulus to economic growth. Large supplies of oil and natural gas were discovered under the North Sea and this has contributed significantly to the UK's growth rate.

**Government Policies:**  
Government spending, such as on infrastructure, can encourage economic growth. **Infrastructure** is the basic systems and services that an economy uses in order to work effectively.

<b>Evaluating Economic Growth</b>	<b>DPRO29:</b> I can accurately analyse the determinants of, and evaluate the costs and benefits of, economic growth.		
<b>What I need to do:</b> <input type="checkbox"/> I can accurately analyse the determinants of, and evaluate the costs and benefits of, economic growth.	<b>Words I need to say:</b>		
	<input type="checkbox"/> Employment <input type="checkbox"/> Unemployment	<input type="checkbox"/> Living Standards <input type="checkbox"/> Poverty	<input type="checkbox"/> Inflation <input type="checkbox"/> Inequalities

**Knowledge I need to learn:**

Benefits of Economic Growth	Costs of Economic Growth
<p><b><u>Rise in Employment &amp; Fall in Unemployment</u></b>                      When an economy grows, there will be more demand for goods and services, meaning that more workers will be required to make these goods and services - this will lead to an increase in employment.</p>	<p><b><u>Inflation</u></b>                      When economic growth occurs, there is more demand for goods and services across the economy which pushes the average price up across the economy - leading to inflation.</p>
<p><b><u>A Reduction in Poverty</u></b>                      Increased income helps reduce poverty levels but also the government can use the tax revenue to raise the living standards of those with low income.</p>	<p><b><u>Inequalities of Income and Wealth</u></b>                      When an economy grows the distribution of wealth may be unequal and some people may actually become less wealthy.</p>
<p><b><u>A Rise in Material Living Standards</u></b>                      Economic growth leads to higher income, which allows people to do things with their money which they couldn't do before - this may make them happier.</p>	<p><b><u>A Lower Quality of Life</u></b>                      These better paying jobs can have an impact on people's mental and physical health.</p>
<p><b><u>A Rise in the Welfare of The Population</u></b>                      When an economy grows the government can use the tax revenue to improve healthcare and education.</p>	<p><b><u>Environmental Costs</u></b>                      Increased production of goods and services can lead to: Increased pollution, Worsening global warming, Congestion, Loss of non-renewable resources.</p>



**Low Unemployment**

**What I need to do:**

- I can explain what is meant by employment and unemployment.
- I can explain how unemployment is measured using the Claimant Count.
- I can calculate the unemployment rate.

**DPRO30:** I can accurately explain what is meant by employment and unemployment, and explain the different types of unemployment.

**Words I need to say:**

- |   |  |
|---|--|
| <input type="checkbox"/> Employment     | <input type="checkbox"/> Level of Unemployment |
| <input type="checkbox"/> Unemployment   | <input type="checkbox"/> Rate of Unemployment  |
| <input type="checkbox"/> Claimant Count |  |

**Knowledge I need to learn:**

**What are employment and unemployment?**

- **Employment** refers to the use of labour in the economy to produce goods and services.
- Labour is one of the factors of production needed to produce goods and services - the reward for labour is wages, and most households rely on these wages from employment of their income.
- There will always be some people who are out of a job, because they may be looking for a different job or for their own reason, or because demand for workers in a market has decreased.
- **Unemployment** occurs when workers able and willing to work at the current wage rates are unable to find employment.

**How is unemployment measured?**

- **Claimant Count** is the method of measuring unemployment according to the number of people who are claiming unemployment-related benefits.

**How can we calculate unemployment figures?**

Unemployment is expressed in two ways:

- The level of unemployment
- The rate of unemployment

The **level of unemployment** refers to the number of people in the working population who are unemployed.

The **rate of unemployment** shows the percentage if the country's workforce that is unemployed.

This can be calculated as follows:

**Unemployment Rate =  $\frac{\text{The number of unemployed}}{\text{Workforce}} \times 100$**

**Questions I need to answer:**

- What is employment?
- What is unemployment?
- How is unemployment measured?
- How can we calculate unemployment figures?

<b>Causes of Unemployment</b>	<b>DPRO30:</b> I can accurately explain what is meant by employment and unemployment, and explain the different types of unemployment.	
<b>What I need to do:</b> <input type="checkbox"/> I can analyse recent and historical unemployment figures. <input type="checkbox"/> I can explain the types of unemployment, including cyclical, frictional, seasonal and structural unemployment. <input type="checkbox"/>	<b>Words I need to say:</b>	
	<input type="checkbox"/> Seasonal Unemployment <input type="checkbox"/> Frictional Unemployment	<input type="checkbox"/> Structural Unemployment <input type="checkbox"/> Cyclical Unemployment
	<b>Questions I need to answer:</b> <ul style="list-style-type: none"> <li>- What is seasonal unemployment?</li> <li>- What is frictional unemployment?</li> <li>- Using an example, explain what structural unemployment is.</li> <li>- What is cyclical unemployment?</li> </ul>	

**Knowledge I need to learn:**

**Causes and Types of Unemployment**

Types of Unemployment	Examples
<b><u>Seasonal Unemployment:</u></b> Lack of employment caused by a fall in demand during a particular season.	Seaside hotels close for the winter period. Agricultural workers may not be required outside the planting and harvesting seasons.
<b><u>Frictional Unemployment:</u></b> Lack of employment caused by time lags when workers move between jobs.	A national chain of shops close down. The unemployed workers will be able to find work elsewhere such as other shops, but it takes time for them to do so.
<b><u>Structural Unemployment:</u></b> Unemployment caused by decline in an industry.	A coal mine closes down. The workers have specific skills which are not required in other industries, so they find it very difficult to gain employment elsewhere.
<b><u>Cyclical Unemployment:</u></b> Lack of employment caused by a lack of demand in the economy.	The economy enters a period of lower economic growth, or even a period of negative economic growth, known as a recession.

<b>Consequences of Unemployment</b>		<b>DPRO 34:</b> I can accurately evaluate the causes and consequences of unemployment for individuals, regions and the government.	
<b>What I need to do:</b> <input type="checkbox"/> I can evaluate the causes and consequences of unemployment for individuals, regions and the government.	<b>Words I need to say:</b>		
	<input type="checkbox"/> Cyclical Unemployment <input type="checkbox"/> Frictional Unemployment	<input type="checkbox"/> Living Standards <input type="checkbox"/> Taxpayers	<input type="checkbox"/> Regions <input type="checkbox"/> Budget Deficit
<b>Knowledge I need to learn:</b>			
<p><b><u>The benefits of unemployment:</u></b></p> <ul style="list-style-type: none"> <li>● Frictional unemployment is necessary because it suggests that workers may be leaving their jobs in search of new jobs with better pay and benefits - the workers may only be unemployed for a short period of time but at the end they may have more money to spend in the economy.</li> <li>● High unemployment keeps the wage rate low, which means that costs are lower for firms - although this is bad for workers who earn less money.</li> <li>● Low wages also make UK firms more competitive because they can keep their costs low and afford to charge higher wages.</li> </ul>	<p><b><u>The costs of unemployment:</u></b></p> <ul style="list-style-type: none"> <li>● Lower living standards: When workers lose their jobs they don't make as much money which generally makes them unhappier.</li> <li>● Workers may feel like they have a lower self-esteem and sense of self worth if they have been unemployed for a while.</li> <li>● When workers have been unemployed for a while, they may struggle to find a job since employers will be hesitant to hire someone who has been unemployed for a long time - which may lead to them not looking for work at all.</li> <li>● Cost to taxpayers: the unemployed are entitled to state benefits which are paid for taxes - if there is not enough tax revenue, the government may need to increase taxes.</li> </ul>	<p><b><u>Costs to the government:</u></b></p> <ul style="list-style-type: none"> <li>● Labour resources are wasted: The economy may struggle to grow if there is large unemployment.</li> <li>● Unemployment leads to more unemployment.</li> <li>● Budget Deficit</li> </ul>	<p><b><u>Costs to the regions:</u></b></p> <ul style="list-style-type: none"> <li>● Unemployment is often spread unevenly throughout the country - some countries may suffer more from unemployment.</li> <li>● This may cause people to move away from these 'depressed' areas, which makes them worse.</li> </ul>
<p><b>Questions I need to answer:</b></p> <ul style="list-style-type: none"> <li>- What is one of the benefits of unemployment?</li> <li>- What is a cost of unemployment to a workout?</li> <li>- What is a cost of unemployment to the government?</li> <li>- What is the cost of unemployment to firms?</li> <li>- What is the cost of unemployment to some regions?</li> </ul>			



<b>Fair Distribution of Income</b>						
<b>What I need to do:</b> <input type="checkbox"/> I can explain what is meant by the distribution of income, including different types of income and the difference between income and wealth. <input type="checkbox"/> I can calculate income and wealth.	<b>DPRO 35:</b> I can accurately explain what is meant by the distribution of income, including different types of income, the difference between and calculate income and wealth.					
	<b>Words I need to say:</b> <table border="1" style="width: 100%;"> <tr> <td><input type="checkbox"/> Distribution of Income</td> <td><input type="checkbox"/> Wealth</td> <td><input type="checkbox"/> Net Income</td> </tr> <tr> <td><input type="checkbox"/> Income</td> <td><input type="checkbox"/> Gross Income</td> <td><input type="checkbox"/> Distribution of Wealth</td> </tr> </table>	<input type="checkbox"/> Distribution of Income	<input type="checkbox"/> Wealth	<input type="checkbox"/> Net Income	<input type="checkbox"/> Income	<input type="checkbox"/> Gross Income
<input type="checkbox"/> Distribution of Income	<input type="checkbox"/> Wealth	<input type="checkbox"/> Net Income				
<input type="checkbox"/> Income	<input type="checkbox"/> Gross Income	<input type="checkbox"/> Distribution of Wealth				

**Knowledge I need to learn:**

<p><b><u>What is the distribution of income?</u></b>                  The <b>distribution of income</b> refers to how the total income of the economy are shared out among its people.  <b><u>Different types of income:</u></b>  <b>Wages:</b> Most households receive income in the form of wages.  <b>Rent:</b> The owners of land and property can gain income from renting out their properties for others to live or work.  <b>Interest:</b> The reward for saving money is paid to households who save their money in bank accounts or loan their money to people.  <b>Profit:</b> Households can earn profits by owning shares in a company, these profits are known as dividends.  <b>State Benefits:</b> Some people may have no jobs at all and rely on state benefits for their income.</p>	<p><b><u>How is income distributed in the UK?</u></b>  <b>Gross Income:</b> Income received before any taxes are taken or benefits given.  <b>Net Income:</b> Income available after the effect of direct taxes and benefits, often called disposable income.</p> <p>Inequality in household incomes in the UK has stayed at a similar level since the early 1990s but is higher than during the 1960s and 1970s.</p> <p>In 2018/19, 42% of all net household income in the UK went to the 20% of richest people, while 7% went to the poorest 20%.</p>
<p><b><u>What is the difference between income and wealth?</u></b>  <b>Income</b> is the reward for the service provided by a factor of production, including labour.  <b>Wealth</b> is the market value of all the assets owned by a person, group or country at a specific point in time. Wealth is a stock of assets, e.g money, houses and land.</p>	<p><b>Questions I need to answer:</b></p> <ul style="list-style-type: none"> <li>- What is the difference between income and wealth?</li> <li>- What is the difference between gross and net income?</li> <li>- What is the distribution of income?</li> </ul>

<b>Income &amp; Wealth Inequality</b>	<b>DPRO 36:</b> I can accurately evaluate the causes of differences in the distribution of income and wealth, the consequences for an economy and the impact of measures to redistribute income.			
<b>What I need to do:</b> <input type="checkbox"/> I can evaluate the causes of differences in the distribution of income and wealth and the consequences for an economy.	<b>Words I need to say:</b>			
	<input type="checkbox"/> Income <input type="checkbox"/> Wealth	<input type="checkbox"/> Rent <input type="checkbox"/> Wages	<input type="checkbox"/> Profit <input type="checkbox"/> Interest	<input type="checkbox"/> Inheritance

**Knowledge I need to learn:**

Reasons for income inequality in the UK		Reasons for wealth inequality in the UK	
Income-earning assets are unevenly distributed	The majority of households only receive wages (which are fairly small), only a few households receive rent or interest, but very little. The richest households receive all of these forms of income, in large amounts.	Inheritance	Some individuals and families own considerable assets, this allows them to pass down their assets to younger generations through inheritance. This allows inequality to continue.
Differences in wages	Due to varying differences in skill, qualification and the value of labour there are massive differences in wages within and across different labour markets.	Savings	Savings earn interest and allow individuals and households to build up wealth. However, low-income households don't earn enough to save in most cases.
Reliance on benefits	Some households receive no income from wages, rent, interest or profits. These are the poorest households because pensions, disability benefits, universal credit or JSA are all very low in comparison to competitive wages.	Purchase of Property	All forms of property are considered wealth. This means that this property could earn income. Houses can earn rent and company shares can earn profits, they can also increase in value over time, without the owner having to do anything. Poorer households typically cannot afford to purchase property.
Age	The younger and older age groups (especially younger) have lower average incomes than those in the middle.	Enterprise	Some people build up wealth through their entrepreneurship, they may start businesses which counts as property and generates income and wealth for the owners.
Gender	The average income of females is lower than that of males in the UK. IN 202, the gender pay gap was 7.4% for full-time employees.	<b>Questions I need to answer:</b> <ul style="list-style-type: none"> <li>- Why is income unevenly distributed in the UK? (3 reasons)</li> <li>- Why is wealth unequally distributed in the UK? (3 reasons)</li> </ul>	

**Structure**



**Drop**

Set the scene and describe the setting or landscape.

**Zoom**

Choose something that you will 'zoom in' on and describe in detail

**Flash**

Change the time or place of your story

**Echo**

Bring it back to where you were at the start. What has changed?

**Punctuation:**

Full stop.  
Question mark?  
Exclamation mark!  
Comma,  
Semi-colon;  
Colon:  
(Brackets)  
Speech marks ""

**Adverbs:**

Cautiously,  
Violently,  
Rapidly,  
Eagerly,

**Figurative Language Examples to Magpie:**

***Suspense suffocated the air; it spread like a disease.***

***The moon glared down on them as it illuminated the fearful city.***

***The sun watched intently as the last of the crowds made their way home.***

***As the wind increased rapidly, the trees stood like giants. Up until this moment, his life had been an unbreakable prison.***

***Two choices flooded her mind: run or fight.***



**Vocabulary**

Synonyms for Great	Synonyms for Dark	Synonyms for Scared
Majestic Tremendous Awe-inspiring Glorious	Dingy Gloomy Ghastly	Terror-struck Agitated Horrified
Synonyms for Miserable	Synonyms for Kill	Synonyms for Beautiful
Sorrowful Despairing Downhearted	Slaughter Crucify Slay	Angelic Exquisite Radiant Dazzling
Synonyms for Watched	Synonyms for Anger	Synonyms for Red
Observed Glared	Wrath Fury Rage	Crimson Scarlet

**Sentence Types:**

**Complex sentence with embedded clause:**

*The sky, which had previously seemed so threatening, now smiled down upon the majestic fields.*

**Short, simple sentences. (Can you repeat the first word or phrase?)**

*The road was long. The road was silent. The road was their only hope.*

**Adverbial phrases**

*As the trapdoor slammed shut, silence filled the air.*



If you're asked about a broad theme like Identity, you could use most poems in the cluster — just make sure you can make a strong comparison

	Identity — Work, Culture and Language	Identity — Family Heritage	Nature — Connection to Nature	Nature — Damage to Nature	Belonging	Loneliness and Isolation	Migration	Prejudice	Power and Authority	Education	Change and Revolution
Lines Written in Early Spring			✓			✓					✓
England in 1819									✓		✓
Shall earth no more inspire thee			✓			✓					
In a London Drawingroom				✓		✓			✓		
On an Afternoon Train...	✓	✓			✓		✓	✓			
Name Journeys	✓				✓	✓	✓	✓			
pot	✓	✓			✓		✓		✓		
A Wider View	✓	✓		✓	✓						
Homing	✓	✓			✓			✓	✓	✓	
A century later								✓	✓	✓	✓
The Jewellery Maker	✓	✓			✓						
With Birds You're Never Lonely	✓		✓	✓		✓					
A Portable Paradise		✓	✓				✓				
Like an Heiress			✓	✓	✓	✓	✓				
Thirteen								✓	✓	✓	

**Themes:**

- Identity: Work, culture, language
- Identity - Family heritage
- Nature - connection to nature
- Nature - damage to nature
- Belonging
- Loneliness and Isolation
- Migration
- Prejudice
- Power and Authority
- Education
- Change and Revolution

**English Language Paper 1:  
Explorations in Reading and Creative  
Writing Knowledge Organiser**  
1 hour 45 minutes

**The absolute basics:**

**Read the text – 5 mins**

**Section A**  
Q1 – List 4 things (5 mins)  
Q2 – How does the writer use language to... (10 mins)  
Q3 – How does the writer structure the text to... (10 mins)  
Q4: [statement] To what extent do you agree? (30 mins)

**Section B**  
Q5: Writing to describe or narrate (45 mins inc. planning time)



**Start of the exam (5 mins)**

1. Read the blurb given for the text. Highlight key words which give you a clue about what you will be reading e.g. character, setting, time.
2. Read the passage carefully. Take time to make sure you understand it and text mark (highlight) as you go.

Look out for:

1. Key quotes about character or setting
2. Pivotal moments
3. Sentences which build a particular tone or mood.



**Section A: Question 1 (5 mins, 4 marks)**

**Question stem:** Write down four things you learn...

**Planning**

1. Read the question and highlight the key words, including the lines it asks you to focus on.
2. Draw a box around the lines you need to focus on in the insert.

**Writing**

1. Write in full sentences.
2. One point per line.
3. Keep it simple i.e. explicit inferences

**Question 2 (10 mins, 8 marks)**

**Question stem:** How does the writer use language to...

**Planning**

1. Read the question and highlight the key words to ensure you understand what the focus of your answer will be.
2. Re-read the section of text the question asks you to focus on.
3. Highlight key quotations which will help you answer the focus of the question. Consider the use of different language devices.

**Basic things to look out for:** 5 senses, colour, adjectives and verbs.

**Grade 7+:** extended metaphors, semantic fields, assonance.

**Writing**

1. You are writing 3 clear PEAs to answer the question.
2. Each should focus on a different language device used.

**Grade 7+ =** Develop PEAs into PEAEAs to show how devices are used across the extract and an overall effect is created.

3. Your 'Points' should use the wording of the question.

**Useful sentence starters**  
**Possible intro if time:**

Throughout the extract the writer creates a ... tone/atmosphere.

**Point:**  
The writer has used a [language device] to suggest/imply/create...

**Evidence:**  
For instance, '...' **ANALYSE**

**Analysis:**  
The use of ... makes it sound like...  
The word/phrase/subject term '...' creates an impression of...  
We might realise/imagine/feel...

**Question 3 (10 mins, 8 marks)**

**Question stem:** How has the writer structured the text to interest you as a reader?

**Planning**

1. Read the question and highlight the key words. This question is about how the text is put together and organised, rather than the language devices used.
2. At the top of the answer booklet write: **STOPSEC**

Setting  
Time  
Opening  
Perspective  
Shift in focus  
Ending  
Character



3. Skim through the whole source again. Highlight and label where you see different STOPSEC features - particularly focus on how the opening and ending are effective.

**Top tip:** for a really clear response, think about what the writer focuses your attention on at the beginning, what they focus you on at the end and whether this is similar or different. Then ask WHY?



**Writing**

1. Aim for 3 PEA paragraphs: beginning contrasted to the end-to give a general overview of the text first of all, then consider how your focus shifts in the middle of the extract and why - your analysis isn't focusing on the use of words and phrases, but on the atmosphere/tone created by the different structural (STOPSEC) features used at different points. A final PEA could be written about another interesting structural feature: repetition, juxtaposition, tone, sentences etc.

**Useful sentence starters:**  
**Possible intro if time:**

Throughout the extract the reader carefully structures the text to interest the reader. They particularly consider [insert STOPSEC feature/s you will focus on.]

**Point:**  
The writer opens the text by introducing/using [insert STOPSEC feature] in order to suggest/create... This links to/is contrasted with the ending of the text, where there is a shift in focus to...

**Evidence:**  
For instance, this is seen when '...'  
**Analysis:**  
The use of ... creates a sense of...  
It tells us...  
We are shown that...  
The ... develops...  
This interests the reader because...

**Notice:** The analysis is NOT on words but on the effect of the structure and the impressions it creates for us.

**Question 4 (30 mins, 20 marks)**

**Question stem:** '[statement about the text]' To what extent do you agree?

**Planning**

1. Read the question and highlight the key words, including the section of the text if specified. Think carefully about how far you agree with the statement.

**Top Tip:** Usually it is best to AGREE with the statement. But consider how far you agree. Is there evidence to argue against this opinion? Create a debate in your answer.

2. Draw a box around the section of the text if specified.
3. Read through and highlight words/phrases/language devices you will use to argue FOR, and maybe against the statement.



**Writing**

1. Aim for 3 PEAEAs in 20 mins. Pick out key words in each and explore their effect.

**Useful sentence starters** (see previous questions too - you can reuse these if appropriate!):

To some extent I agree with...  
I certainly agree that...  
However, it could also be argued that...  
Overall I agree that...



**PROOF READ YOUR WORK!**  
(Allow 5 mins for this)  
-Spelling inc. homophones e.g. to/too/two or there/their/they're  
-Improve any dull words to make them more exciting!

**Section B: Question 5 (45 mins, 40 marks)**

**Question focus:** Writing to narrate (story) or describe.

**Planning (THIS IS REALLY IMPORTANT!)**

1. Decide which task you would like to do (narrate or describe). There might not be a choice! Reminder of the structure for each below:

Describe	Narrate
Panoramic Zoom Zoom Zoom Panoramic	Rule of 1: 1 setting, 1 character, 1 event, 1 hour  Hook → Character intro → Development → Turning point → Resolution
Consider STOPSEC to structure your writing in both tasks!	

2. Plan using the structures above. You should also consider:

-What good vocab could you use from the extract you have just read?  
Vary your sentence openers with verbs, adverbs, prepositions, adjectives. Use a semi-colon (instead of because)

**Writing**

**Remember these things →**  
Use plenty of description, even in a narrative. Vary the length of your sentences (inc. at least 1 holophrastic phrase) and your paragraphs.  
Commas after subordinate clauses Variety of language devices





**AQA English Language Paper 2 Section A**

**THE BASICS**

- In June of your Year 11.
- Paper 2 is worth 50% of your English Language GCSE.
- Section A Reading is worth 25% of your GCSE and takes 60 minutes.
- You will be given two nonfiction texts to read: one modern, one 19th century.
- They will be on a similar topic.
- Section B Writing is worth 25% of your GCSE and takes 45 minutes.
- You have four questions to answer in Sec+on A Reading.
- You should use a highlighter to help you with this paper.

**QUESTION 1 - 4 MARKS**

**True or false?**

What will the question look like?

Read lines 1 to 12 of Source A. Choose four statements below which are true:

A	Pandas are dangerous.	<input type="radio"/>
B	Pandas eat human flesh.	<input type="radio"/>
C	The man loves a panda.	<input type="radio"/>
D	China is made of Pandas.	<input type="radio"/>
E	We should do more to educate pandas.	<input type="radio"/>
F	The panda was driving under the influence.	<input type="radio"/>

- Be quick: it's only worth four marks.
- Read the questions and answers carefully: have you chosen the right lines?
- Have you spotted any trick questions? Running out of time? Have a guess and move on. You've nothing to lose.

**QUESTION 2 - 8 MARKS**

**Summary of comparisons**

What will the question look like?

Read Source A and Source B. Write a summary of the differences in the pandas' habitats in zoos and in the wild.

- Highlight the key focus of the question: they do not just ask for a general comparison.
- This is basically a fact-based comparison— not attitudes or ideas. Look for quotations which allow you to show your intelligence, not the obvious.
- Show layers of interpretations but do not bother with technical terms.
- The question could ask you to compare differences or similarities.

How do I write it?

One difference is in Source A... while in Source B...

For example, in source A is tells us "quote". This implies...

In Source B it tells us "quote". This implies... Another difference is...

(repeat).

**QUESTION 3 - 12 MARKS**

**Language focus**

What will the question look like?

Now look at Source B. Read lines 12 to 40. How does the write use **language** to make the zoo sound unpleasant?

- Highlight the key focus of the question: they do not just say "write about language".
- Highlight the techniques you can find which allow you to be able to discuss impressions, impact and connotations.
- Try to begin with word/meaning based points.

How do I write it?

To describe the zoo as .... the writer uses...

powerful verbs adjectives adverbs a simile repetition a list metaphor onomatopoeia

For example it says, ".....quote ...."

(Zoom in on a single word) The word "...." suggests... implies.. makes the reader feel/think... because ...

(repeat)

**QUESTION 4 - 16 MARKS**

**Attitudes and methods comparisons**

What will the question look like?

Compare the different attitudes to the topic in Source A and Source B.

- compare their attitudes
- compare the methods they use to present these attitudes

- Note down pairs of differing attitudes/feelings between the two sources; eg impressed/ disgusted, approving/shocked. They do not need to be opposites, just differences.
- For each pair, find language techniques and quotations to show how the writer communicates their attitudes/thoughts/feelings.
- This is the answer with the most marks in the Reading Section: it should be longer.
- The question could ask you to compare differences or similarities.

How do I write it?

One difference is that Source A has the attitude that... whereas Source B has more the attitude that...

For example, Source A tells us "...quote..." This suggests... This implies ... because... (Repeat).

Examples of attitudes/ feelings impressed by.. concerned about... amused by... indignant about... shocked by... approving of... admiring of... critical of... frustrated by...



**AQA English Language Paper 2 Section B**

**Overview:** This task requires you to write an engaging article, speech or letter. The tasks are non fiction style but you can make up your facts and examples. You should make sure your tone and ideas are suitable for the audience you are writing for. The question will be on a similar theme to the texts you will look at in section A of the paper.

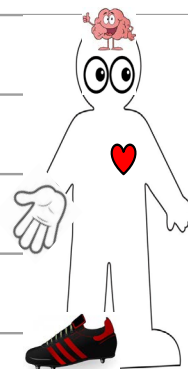
**Marks available:** 24 marks for content and organisation and 16 marks for SPaG accuracy.

<b>How to revise:</b>	<p>1. Self quiz this knowledge organiser</p> <p>2. Self quiz and practise using the AFOREST techniques</p> <p>3. Plan and write your answers to these practice questions</p>
	<p>‘Cars are noisy, dirty, smelly and downright dangerous. They should be banned from all town and city centres, allowing people to walk and cycle in peace.’ Write a letter to the Minister of Transport arguing your point of view on this statement.</p>
	<p>‘We should all have to give at least 10% of the money we earn to charity.’ Write a speech for school arguing your point of view on this statement.</p>






**Grade 8-9 tips:**

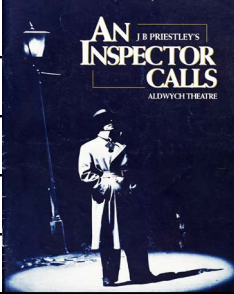
- Use a blend of persuasive devices and figurative devices.
- Try using humour and irony to create a convincing tone.
- Regularly read opinion pieces (or columns) in the news.
- Have one idea or image that you refer to throughout, or craft an extended metaphor.

Vocabulary	Meaning
unorthodox	Unusual
unquestionably	Definitely
ludicrous	Ridiculous
extraordinary	Unusual
nonetheless after all	In spite of
indisputably	without doubt
ideology	System of beliefs
status quo	The way things have always been
ethics	Rules about right and wrong
hypocrisy	Claiming to be one thing but doing the opposite (to be a hypocrite)
paradox	A contradictory statement
ambitious	Having desire to succeed
usurp	Take by force
treachery	Betrayal of trust

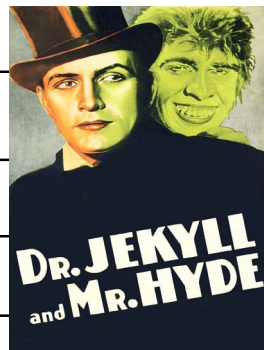


**How to Structure your Writing: The Body Plan**

Section	Techniques	Paragraph Starter
<p><b>The handshake:</b> A powerful introduction</p> 	<p>Direct address Refer to the purpose of the piece: (readers / audience / name of the person if it's a letter')</p>	<p><i>Imagine a world where...</i></p>
<p><b>The brains</b> of the matter: Sound knowledgeable </p>	<p>Facts and statistics The opinion of an expert</p>	<p><i>Evidently, ...</i></p>
<p><b>Appeal to the heart:</b> An emotive argument </p>	<p>Emotive language Anecdote (personal or about a real/made up other person)</p>	<p><i>Take (me / name of person) ...</i></p>
<p><b>Kick the</b> opposing argument off the pitch </p>	<p>Acknowledge the other side of the argument but state why your case is stronger</p>	<p><i>While some people may say...</i></p>
<p><b>Look to the</b> future: Finish with a call to action </p>	<p>Imperative language Refer to the purpose of the piece: <i>Readers, as you put down this magazine I want you to...</i> <i>Audience members. As you leave this assembly hall today I want you to...</i> (Name of person) as you finish reading this letter I want you to...</p>	

Act	Plot	Character	Vocabulary	Context	
One	<i>The play opens with a celebratory dinner party. Sheila and Gerald are engaged and Birling and Company will work closer with Crofts Ltd. On the surface, the atmosphere is happy and light-hearted.</i>	The Inspector	<b>Capitalist:</b> a business person	<b>John B Priestley</b> was born into a working class family in Yorkshire. Priestley was a <b>socialist</b> and concerned about social inequality in Britain. During WWII he broadcast a popular weekly radio programme which was cancelled by the BBC for being <b>too left wing</b> . Priestley supported the Labour Party.	
	<i>The ladies leave the men to have a 'man to man' chat. Mr Birling lectures Gerald and Eric that a man needs to look after himself and his family and not worry about the wider community.</i>	Mr Arthur Birling	<b>Conservative:</b> traditional values		
	<i>Inspector Goole enters and informs the party that he has come to investigate the suicide of a young working-class girl called Eva Smith. Starting with Birling, he begins to interrogate the family.</i>	Mrs Sybil Birling	<b>Didactic:</b> teaching (a moral lesson)		
	<i>After seeing a photograph, Birling admits that he used to employ Eva Smith but discharged her when she became one of the ring-leaders of a strike asking for higher wages. Birling refuses to take any responsibility.</i>	Sheila Birling	<b>Dramatic irony:</b> when the audience know something that the characters do not		
	<i>Sheila enters and the Inspector moves on to question her. When she is shown a photograph of Eva, Sheila admits that it was her fault that Eva was sacked from Milwards. She feels terribly guilty and responsible for Eva's death. When the Inspector states that Eva, in despair, changed her name to Daisy Renton, Gerald reaction reveals that he knew her too.</i>	Eric Birling	<b>Elitist:</b> one who believes that society should be led by the upper classes		
Two	<i>Gerald's affair is exposed: he confesses that he met "Daisy Renton" at the local Variety Theatre bar and 'rescued' her from Alderman Meggarty. Gerald ended the affair when he had to go away on business. Sheila hands back her engagement ring but respects Gerald's honesty. In contrast to her daughter, Mrs Birling is scandalised. Gerald leaves to go for a walk.</i>	Gerald Croft	<b>Empathetic:</b> feeling / understanding for others	<b>Post-war values</b> – the play was <b>WRITTEN</b> in 1945. Britain had become a more equal society – by 1928 all men and women over 21 could vote. The country had been through two world wars and a global economic recession (1930s) which increased unemployment and poverty. People from different classes had fought together in the war – there was now a desire for change and a strong sense of collective social responsibility.	
	<i>Inspector Goole now shows a photograph to Mrs Birling. She grudgingly admits that Eva had come to ask for financial assistance from the Brumley Women's Charity Organisation because she was pregnant. Mrs Birling was the chairwoman and persuaded the committee to turn down the girl's appeal because she had the impudence to call herself Mrs Birling.</i>	Eva Smith / Daisy Renton	<b>Euphemism:</b> a soft word in place of a harsh one		
	<i>Mrs Birling shows no remorse for refusing to help Eva Smith. Mrs Birling denounces the father of the child, claiming it is his responsibility and that he needs to be made an example of. Sheila is horrified as she (and the audience) realises that Eric is involved. Eric enters.</i>	Edna	<b>Foreshadowing:</b> a warning of a future event		
	<i>Eric confesses his involvement with Eva Smith: he had met her in the same bar, had got drunk and had accompanied her back to her lodgings where he almost turned violent before she let him in. When she discovered that she was pregnant she refused to marry Eric because she knew he didn't love her, but she did accept gifts of money from him until she realised it was stolen - Eric admits that he stole the money from Mr Birling's office.</i>	<b>Key Themes</b>			
Three	<i>The Inspector delivers his message about responsibility then leaves. Mr and Mrs Birling are concerned about covering up their involvement, whereas Sheila and Eric are aware of the personal tragedy and feel guilty.</i>	<b>Responsibility</b>		<b>Hierarchy:</b> a society where people are ranked by status	
	<i>The Birlings gradually begin to question whether the Inspector was real. Sybil and Arthur agree that it makes all the difference; Eric and Sheila disagree as even if he was a fake, what he's shown them is real.</i>	<b>Social Class</b>			
	<i>Gerald re-enters. He has also had suspicions and found out that there is no Inspector Goole on the police force, which Birling confirms with a phone call. The older Birlings, and Gerald, take this as a cue to alleviate any responsibility whereas the young are repentant and continue to protest that they need to learn a lesson about their responsibility.</i>	<b>Age (the generation gap)</b>			
	<i>Then the telephone rings. Mr Birling answers it: an inspector is on his way to ask questions about the suicide of a young girl...</i>	<b>Gender</b>			
		<b>Inequality</b>			
		<b>Dramatic devices and terminology</b>			
		<b>Cyclical structure</b>			Lighting
	<b>Stage directions</b>	Dramatic irony			
	<b>Props and costume</b>	Cliffhanger			
	<b>Symbolism</b>	Entrances and exits			
		<b>Socialist:</b> one who believes in sharing of wealth in society			
		<b>Social conscience:</b> feeling responsible for others in society			
		<b>Status quo:</b> the existing state of things			
		<b>Key historical dates</b> – 1912 – The sinking of the Titanic 1914-18 – WW1 in which Priestley served 1917 – The Russian Revolution 1918 – Women over thirty /owned property were given the right to vote. 1928 – All men and women over 21 given the vote 1936 – General Strike 1939-46 – WW2 1945 – <i>An Inspector Calls</i> first performed in the Soviet Union (it was performed in Britain in 1946 at the New Theatre in London) 1945 - <b>Clement Attlee</b> (Labour) wins a landslide victory against Winston Churchill (Conservative) in the General Election 19 – Welfare state culminates in creation of the National Health Service			
		<b>Morality Play</b> – religious plays written in the Middle Ages which teach the audience how to behave and warn against the dangers of sin. Priestley makes his morality play secular by having the moral judge be a police inspector rather than God.			


Chapter	Plot	Character	Vocabulary	Context
1 The Story of the Door	<i>Passing a strange-looking door whilst out for a walk, Enfield tells Utterson about incident involving a man (Hyde) trampling on a young girl. The man paid the girl compensation. Enfield says the man had a key to the door (which leads to Dr Jekyll's laboratory)</i>	Dr. Henry Jekyll	<b>Protagonist:</b> main character	<b>Fin-de-siècle fears</b> – at the end of the 19 <sup>th</sup> century, there were growing fears about: migration and the threat of disease; sexuality and promiscuity; moral degeneration and decadence.
2 Search for Hyde	<i>Utterson looks at Dr Jekyll's will and discovers that he has left his possessions to Mr Hyde in the event of his disappearance. Utterson watches the door and sees Hyde unlock it, then goes to warn Jekyll. Jekyll isn't in, but Poole tells him that the servants have been told to obey Hyde.</i>	Mr. Edward Hyde	<b>Third person limited narrative:</b> one character's experiences closely narrated	<b>Victorian values</b> – from the 1850s to the turn of the century, British society outwardly displayed values of sexual restraint, low tolerance of crime, religious morality and a strict social code of conduct.
3 Dr Jekyll was Quite at Ease	<i>Two weeks later, Utterson goes to a dinner party at Jekyll's house and tells him about his concerns. Jekyll laughs off his worries.</i>	Gabriel Utterson	<b>Epistolary:</b> written in the form of a letter	<b>Victorian London</b> – the population grew from 1 million in 1800 to 6.7 million in 1900, with a huge numbers migrating from Europe. As well as being one of the biggest and wealthiest cities in the world, it was rife with poverty and crime.
4 The Carew Murder Case	<i>Nearly a year later, an elderly gentleman is murdered in the street by Hyde. A letter to Utterson is found on the body. Utterson recognises the murder weapon has a broken walking cane of Jekyll's. He takes the police to Jekyll's house to find Hyde, but are told he hasn't been there for two months. They find the other half of the cane and signs of a quick exit.</i>	Dr. Hastie Lanyon	<b>Ethics:</b> morals	<b>Darwinism:</b> te implications of <b>Darwinism and evolution</b> haunted Victorian society. The idea that humans evolved from apes and amphibians led to worries about our lineage and about humanity's reversion to these primitive states (atavism).
5 Incident of the Letter	<i>Utterson goes to Jekyll's house and finds him 'looking deadly sick'. He asks about Hyde but Jekyll shows him a letter that says he won't be back. Utterson believes the letter has been forged by Jekyll to cover for Hyde.</i>	Richard Enfield	<b>Controversial:</b> causing strong disagreement	<b>Duality</b> – the idea that humans have a <b>dual</b> nature was emerging towards the end of the 19 <sup>th</sup> Century. On one side was the rational, civilised self, and on the other side, a savage nature, repressed by society. As a child, Stevenson was fascinated by the story of the notorious Deacon Brodie, who was a respectable member of Edinburgh's society by day, however he led a secret life as a burglar and gambler by night.
6 Remarkable Incident of Dr Lanyon	<i>Hyde has disappeared and Jekyll seems more happy and sociable until a sudden depression strikes him. Utterson visits Dr Lanyon on his death-bed, who hints that Jekyll is the cause of his illness. Utterson writes to Jekyll and receives a reply that suggests he is has fallen 'under a dark influence'. Lanyon dies and leaves a note for Utterson to open after the death or disappearance of Jekyll. Utterson tries to revisit Jekyll but is told by Poole that he is living in isolation.</i>	Poole	<b>Atavism:</b> reverting to something ancestral/ancient	<b>Disreputable:</b> of a bad reputation
7 Incident at the Window	<i>Utterson and Enfield are out for walk and pass Jekyll's window, where they see him confined like a prisoner. Utterson calls out and Jekyll's face has a look of 'abject terror and despair'. Shocked, Utterson and Enfield leave.</i>	Sir Danvers Carew	<b>Degeneration:</b> moral decline	<b>Metamorphosis:</b> transformation
8 The Last Night	<i>Poole visits Utterson and asks him to come to Jekyll's house. The door to the laboratory is locked and the voice inside sounds like Hyde. Poole says that the voice has been asking for days for a chemical to be brought, but has rejected it each time as it is not pure. They break down the door and find a twitching body with a vial in its hands. There is also a will which leaves everything to Utterson and a package containing Jekyll's confession and a letter asking Utterson to read Lanyon's letter.</i>	Mr. Guest	<b>Primitive:</b> belonging to an earlier time	<b>Restraint:</b> holding back
9 Dr Lanyon's Narrative	<i>The contents of Lanyon's letter tells of how he received a letter from Jekyll asking him to collect chemicals, a vial and notebook from Jekyll's laboratory and give it to a man who would call at midnight. A grotesque man arrives and drinks the potion which transforms him into Jekyll, causing Lanyon to fall ill.</i>	<b>DR JEKYLL AND MR HYDE – Key Themes</b>		
10 Henry Jekyll's Full Statement of the Case	<i>Jekyll tells the story of how he turned into Hyde. It began as a scientific investigation into the duality of human nature and an attempt to destroy his 'darker self'. Eventually he became addicted to being Hyde, who increasingly took over and destroyed him.</i>	<b>Reputation / Respectability</b>		
		<b>Science</b>		
		<b>The supernatural</b>		
		<b>Duality</b>		
		<b>Secrecy</b>		
		<b>Unorthodox:</b> going against what's normal		






Act	Plot	Characters	Key Dramatic Terms	Context
One	<ul style="list-style-type: none"> <li>The three witches plan to meet Macbeth on the heath</li> <li>Macbeth and Banquo are praised as brave and loyal warriors</li> <li>Macbeth and Banquo meet the Witches who reveal the first set of <b>prophecies</b>: Macbeth will be Thane of Cawdor, then King. They tell Banquo his descendants will be kings.</li> <li>Duncan makes Macbeth Thane of Cawdor. Macbeth starts to wonder in the Witches' prophecy about him becoming King will come true...</li> <li>Lady Macbeth receives Macbeth's letter; and plans to manipulate Macbeth</li> <li>Duncan arrives at Macbeth's castle</li> <li>Macbeth's <b>soliloquy</b>. Macbeth tells Lady Macbeth he will not commit <b>regicide</b>, but she persuades him to go ahead with the murder and convinces him that they can frame Duncan's servants.</li> </ul>	<p><b>Macbeth</b></p> <p><b>A brave and ambitious Scottish nobleman. He murders and usurps King Duncan</b>. After hearing the witches' prophecies transform him from a loyal warrior to an immoral <b>tyrant</b>.</p>	<p><b>Aside</b> - a character speaks to the audience</p>	<p><b>Tragedy</b> – a play in which the protagonist meets their downfall, or suffers extreme sorrow. This is normally as a consequence of their own tragic flaw – hamartia – (a weakness, which under certain circumstances, is fatal for the protagonist).</p> <p><b>King James I</b> had recently ascended to the English throne and Shakespeare sought to impress him by addressing his interests, such as <b>kinship</b> and <b>witchcraft</b>. James I had a deep interest in the supernatural and had also recently survived the Gunpowder Plot to kill him. Therefore Shakespeare depicts the devastating effects of <b>regicide</b> in 'Macbeth'. The play also complimented the king's ancestry (Banquo, a noble character, was named after one of James' ancestors).</p>
		<p><b>Lady Macbeth</b></p> <p><b>She represents ambition, cunning, manipulation and guilt.</b> She is a <b>rebel</b>, challenging the submissive role of women and the divine right of kings.</p>	<p><b>Soliloquy</b> - a character speaking their thoughts aloud</p>	
		<p><b>King Duncan</b></p> <p><b>He symbolises nobility, dignity and trust.</b> A compliment to royalty, he is respected and trusting – but then betrayed.</p>	<p><b>Dialogue</b> - conversation</p> <p><b>Blank verse</b> - unrhymed lines often written in iambic pentameter</p>	
Two	<ul style="list-style-type: none"> <li>Banquo and Macbeth discuss the witches. Macbeth sees a vision of a dagger leading him to Duncan's chamber.</li> <li>Macbeth murders King Duncan and Lady Macbeth plants blood-stained daggers on the servants; Macbeth begins to experience guilt, but Lady Macbeth manipulates him by questioning his courage and masculinity.</li> <li>Macduff discovers Duncan's body. Macbeth and Lady Macbeth pretend to be shocked. Duncan's sons, Malcolm and Donalbain flee from Scotland because they fear for their lives – this makes them look guilty</li> <li>Macduff suspects that Malcolm and Donalbain are responsible, allowing Macbeth to take the throne</li> <li>Rosse and an old man discuss the strange and unnatural things that have been happening since Duncan's murder – the natural order has been disrupted. Macduff tells Ross that he isn't going to Macbeth's coronation, indicating he is suspicious of Macbeth.</li> </ul>	<p><b>Banquo</b></p> <p><b>He symbolises nobility, loyalty and trust.</b> Through his loyalty and rejection of the prophecies, he is a <b>foil</b> to the character of Macbeth.</p>	<p><b>Iambic Pentameter</b> - a line of verse with 10 syllables</p>	<p><b>The Great Chain of Being</b> – in the <b>Jacobean</b> era, people believed that all life was part of a strict hierarchy, with God at the top. Kings were thought to have been chosen by God - their <b>'divine right'</b> meant that they had the right to rule directly from God's will. To challenge this hierarchy by <b>usurping</b> the king was to challenge God.</p> <p><b>Witches and the Supernatural</b> – There was real superstition and anxiety about the evils of witchcraft. King James had previously written a book called <b>'Demonology'</b> which was a study of the evils of magic. He also asked Parliament to pass an anti-witchcraft law, which he then used to execute a number of witches in the North Berwick Witch Trials.</p> <p><b>The Gunpowder Plot</b>. In 1605, a group of rebels, including Guy Fawkes, attempted regicide by plotting to blow up Parliament. Shakespeare shows how those who commit <b>regicide</b> will be tormented by guilt and ultimately meet a tragic end.</p> <p><b>The Role of Women</b> – Society was <b>'patriarchal'</b> (led by men). Women were said to be lower than men in the Great Chain of Being. A woman's role in Jacobean times was clearly defined. They were expected to marry, to bear children and be subservient to men. Women who challenged this concept were sometimes labelled as witches and ostracised from society, or worse...</p> <p><b>The real Macbeth</b>: Shakespeare wrote 'Macbeth' in 1600s, but he based it loosely on historical events – a man called Macbeth was King of Scotland in 11<sup>th</sup> Century. The setting is a heroic culture where masculinity must be won, maintained and defended.</p>
		<p><b>Macduff and Lady Macduff</b></p> <p><b>They symbolise family, loyalty and vengeance</b> The Macduffs serve as a <b>contrast (and foils)</b> to the Macbeths: they are loyal; they are a loving family; Macduff is the noble warrior when he kills Macbeth.</p>	<p><b>Prose</b> - text without formal rhythm</p> <p><b>Protagonist</b> - leading character</p> <p><b>Tragic Hero</b> - the protagonist in a tragedy</p>	
		<p><b>Malcolm</b></p> <p>The son of Duncan. He flees after Duncan's murder, and becomes King at the end of the play.</p>	<p><b>Foil</b> - contrasting character</p>	
Three	<ul style="list-style-type: none"> <li>Banquo's soliloquy reveals that he is suspicious of Macbeth</li> <li>Macbeth is anxious about Banquo because of the Witches' prophecy and orders assassins to murder Banquo and his son, Fleance</li> <li>Macbeth tells Lady Macbeth about his guilt and hints at his plan for Banquo and Fleance – he is now keeping secrets from his wife</li> <li>Banquo is murdered, but Fleance escapes!</li> <li>Macbeth learns of Fleance's escape and then sees Banquo's ghost at the banquet he is hosting – his reaction reveals his guilt to his guests</li> <li>The witches meet with Hecate, the Goddess of witches</li> <li>Lennox and another lord suspect Macbeth of murdering Duncan and Banquo. They say that Macduff is raising an army to attack Macbeth and put Malcolm on the throne</li> </ul>	<p><b>The Three Witches</b></p> <p><b>They represent the supernatural, evil and equivocation.</b> The witches' prophecies never give the full answer (they <b>equivocate</b>) and therefore tempt Macbeth towards his tragic end.</p>	<p><b>Hubris</b> - excessive pride</p>	<p><b>Key Thematic Terms</b></p> <p><b>Malevolent</b> - evil</p> <p><b>Paradox</b> - contradiction</p> <p><b>Dichotomy</b> - separation</p> <p><b>Equivocation</b> - unclear</p> <p><b>Prophecy</b> - prediction</p> <p><b>Regicide</b> - killing the King</p> <p><b>Revenge</b> - payback</p> <p><b>Superstition</b> - belief in magic or chance</p> <p><b>Ambition</b> - desire to achieve</p> <p><b>Treachery</b> - betraying trust</p> <p><b>Tyrant</b> - cruel leader</p> <p><b>Usurp</b> - take over</p> <p><b>Patriarchy</b> - society ruled by men</p>
		<p><b>MACBETH - Key Themes</b></p>		
		<p><b>Ambition</b></p>	<p><b>Loyalty vs. Betrayal</b></p>	
Four	<ul style="list-style-type: none"> <li>Macbeth visits the Witches again; they summon three apparitions which each tell another prophecy: one, beware Macduff; two, no one born from a woman can harm him; three, he can't be beaten until Birnam Wood moves to Dunsinane Hill.</li> <li>Macbeth sends murderers to kill Macduff's wife and children.</li> <li>In England, Macduff proves his loyalty to Malcolm. Malcolm reveals that the English King has given him soldiers to fight Macbeth. Macduff learns of his family's murder. He and Malcolm vow <b>revenge</b> on Macbeth.</li> </ul>	<p><b>Kingship</b></p>	<p><b>Revenge</b> - payback</p>	
		<p><b>Gender (masculinity / femininity)</b></p>	<p><b>Superstition</b> - belief in magic or chance</p>	
Five	<ul style="list-style-type: none"> <li>Lady Macbeth has gone mad. She sleepwalks and keeps washing invisible blood from her hands. She is weakened by guilt.</li> <li>The Scottish lords plan to meet the English army at Birnam Wood</li> <li>Macbeth hears about the approaching English army but he isn't scared because of the Witches' prophecies.</li> <li>Malcolm tells the soldiers to cut down branches from Birnam Wood and hide behind them as they march towards Macbeth's castle.</li> <li>Macbeth prepares for battle; he finds out that LM has killed herself</li> <li>Macbeth and Macduff meet on the battlefield. Macbeth discovers that Macduff was born by caesarean. They fight and Macbeth is killed.</li> <li>Malcolm is made King of Scotland.</li> </ul>	<p><b>The Supernatural</b></p>	<p><b>Ambition</b> - desire to achieve</p> <p><b>Treachery</b> - betraying trust</p>	
		<p><b>Fate vs. Freewill</b></p>	<p><b>Tyrant</b> - cruel leader</p> <p><b>Usurp</b> - take over</p>	
		<p><b>Guilt</b></p>	<p><b>Patriarchy</b> - society ruled by men</p>	


**Lines Written in Early Spring - William Wordsworth**

<b>Themes:</b> place, identity, natural world, memory	<b>Tone:</b> somberness, disappointment
<p><b>Content, meaning and purpose:</b> The speaker sits in a woodland grove and describes the nature that can be seen around him and links his soul to nature. The speaker describes how man has fallen out of the natural rhythm of nature.</p> 	<p><b>Context:</b> -Wordsworth is a Romantic poet. Romantic poets celebrate nature over industry (The Industrial Revolution) -The somberness of the poem reflects Wordsworth's own personal and political disappointments with the world.</p>
<p><b>Language:</b> 'Soul' 'belief' 'heaven' 'holy' Religious semantic field reflects devotion to nature. 'What man has made of man' is repeated, the verb 'made' implies that humans are responsible for moulding their own corruption.</p>	<p><b>Form and structure:</b> -Pastoral poem (poetry that idealises country life) - six stanzas each written in quatrains: this could reflect the consistency and harmony of the natural world.</p>


**England in 1819 - Percy Bysshe Shelley**





<b>Themes:</b> place, oppression	<b>Tone:</b> anger, frustration, revolt
<p><b>Content, meaning and purpose:</b> A political poem that criticises the condition of England in 1819. The monarchy and the government are criticised and the difficult living conditions of the poor are exposed.</p> 	<p><b>Context:</b> - Romantic poet -Shelley refers to King George III, the 'mad king', Prime Minister Lord Liverpool and the Peterloo Massacre. - If you published this poem in 1819, you were at risk of being imprisoned.</p>
<p><b>Language:</b> 'Leechlike to their fainting country cling' simile suggests that rulers are taking resources from the starving poor. Personification 'fainting' highlights the ill state of England.</p>	<p><b>Form and structure:</b> -Sonnet form using iambic pentameter - Breaks away from typical sonnet rhyme structure in the middle, reflects the chaos -Final rhyming couplet shifts to a vision of national redemption and change.</p>

**Shall earth no more inspire thee - Emily Brontë**





<b>Themes:</b> memory, natural world, loneliness	<b>Tone:</b> melancholy, encouragement
<p><b>Content, meaning and purpose:</b> The poem appeals to its subject to find comfort in nature during a dark period in their life to help them find peace. Published in 1846 it reminds us that nature has always been a comfort.</p> 	<p><b>Context:</b> -Bronte experienced loss in her life (mother &amp; two sisters) -Wrote under her pseudonym 'Ellis Bell' as it was harder for women to be published in the Victorian era</p>
<p><b>Language:</b> -two rhetorical questions in first stanza -'I know my mountain breezes' Possessive 'my' suggests it could be the earth or the speaker speaking. - 'sinks' and 'summer' sibilance is soft and soothing</p>	<p><b>Form and structure:</b> -7 stanzas of 4 lines and an ABAB rhyme scheme creating a smooth but energetic and firm rhythm -1st stanza in second person narrative as a direct plea to the subject expressing their concern for their mental wellbeing</p>



**In a London Drawing room - George Eliot**


<b>Themes:</b> Loneliness, natural world, oppression	<b>Tone:</b> critical, scathing
<p><b>Content, meaning and purpose:</b> A summary of someone's experience of the landscape in London through the window in their drawing room. It critiques the darkness and pollution that seem to hide the natural world.</p> 	<p><b>Context:</b> -Critiques Victorian London, urban life and the impact of the Industrial Revolution. -George Eliot was Mary Ann Evans pen name - she chose to do this as she felt women writers were not taken seriously</p>
<p><b>Language:</b> '..line of wall/ like sold fog' - simile reflects the dense and unforgiving atmosphere 'Bird' symbolises freedom and nature which is unable to exist 'One huge prison house and court' - metaphor symbolises the lack of freedom and humanity.</p>	<p><b>Form and structure:</b> - Use of blank verse and one unbroken stanza helps reflect the relentless and unchanging reality of urban life in Victorian London.</p>

<p><b>On an Afternoon Train from Purley to Victoria, 1955 - James Berry</b></p>		<p><b>Name Journeys - Raman Mundair</b></p>	
<p><b>Themes:</b> journeys, prejudice, place, identity</p>	<p><b>Tone:</b> melancholy, calm, positive</p>	<p><b>Themes:</b> place, identity</p>	<p><b>Tone:</b> reflective, critical</p>
<p><b>Content, meaning and purpose:</b> Berry confronts ignorant, unintended racism and observes some of the cultural confusions in 1950s Britain. On a train, a Quaker women sit next to him and engages in an ignorant conversation.</p> 	<p><b>Context:</b> -Berry is from Jamaica - He moved to England during the wave of immigration from the West Indies led by the Empire Windrush -Quakers are known to promote equality</p>	<p><b>Content, meaning and purpose:</b> The speaker talks about their past and the importance of traditions associated with their names and cultural events. The speaker travelled from The Punjab to the UK and they reflect on their accent becoming mingled with the Mancunian accent.</p> 	<p><b>Context:</b> -Rama is a Hindu Deity who was exiled and Sita was his wife. Draupadi is viewed as brave and beautiful. -Mundair was born in India and raised in Manchester and Leicester</p>
<p><b>Language:</b> "I was thoughtful" - repeated twice, reflecting the power of silence. "Sunny country" - simplicity of of this noun phrase emphasises the woman's ignorance of Jamaica "Us." Last word suggests unity rather than division.</p>	<p><b>Form and structure:</b> -third stanza uses a flashback which creates a sense of nostalgia - structure is simple using free verse reflecting the simplicity of the interaction</p>	<p><b>Language:</b> - 'spiritual sari sisters' 'silk' 'swathe' sibilance emphasises the connection between her and Sita - and her culture. - 'my name became a stumble' a metaphor for the possible ignorance that was encountered from those who did not pronounce her name correctly.</p>	<p><b>Form and structure:</b> -the repeated use of two line stanzas could reflect the intertwining of two cultures. -the mix of enjambment and end-stopped lines reflects the varied rhythm of speech.</p>
<p><b>pot - shamshad khan</b></p>		<p><b>A Wider View - Seni Seneviratne</b></p>	
<p><b>Themes:</b> identity, journeys, place, oppression</p>	<p><b>Tone:</b> critical, humorous, demanding</p>	<p><b>Themes:</b> relationships, identity, memory</p>	<p><b>Tone:</b> reflective, nostalgic</p>
<p><b>Content, meaning and purpose:</b> The speaker directly addresses a pot and imagines how it might have felt being taken from its home in Nigeria and placed in a strange place (The Manchester Museum)</p> 	<p><b>Context:</b> -the pot is used to comment identity, colonialism, migration and the slave trade. -Khan identifies with the pot's pain and dislocation - her parents migrated from Pakistan</p>	<p><b>Content, meaning and purpose:</b> The speaker recalls her great-great grandfather's wish to escape the polluted city that he was born in. They describe his journey home from Leeds during the Industrial Revolution in Victorian Leeds.</p> 	<p><b>Context:</b> -the poem is set in Leeds in Northern England and references several places within the city as it comments on the impact of the Industrial Revolution. -poet has Sri Lankan &amp; English heritage</p>
<p><b>Language:</b> - 'Pot' is a metaphor for those who have also been wrongfully displaced or imprisoned - 'more asian than the asian's pot' humorous tone encourages the listener to reflect on the impact of diaspora (the dispersion of people from their original homeland)</p>	<p><b>Form and structure:</b> -there is a one sided central 'conversation' where the pot is unable to respond, perhaps reflecting its powerlessness -fragmentary structure using free verse and therefore not conforming to set 'rules'</p>	<p><b>Language:</b> - 'searched for spaces/in the smoke-filled sky to stack his dreams' creates an image of longing for more within a society that runs on limitations. - 'Stack his dreams' metaphor that mirrors the semantic field of industry and work.</p>	<p><b>Form and structure:</b> -the last two stanzas switch to modern day Leeds where the speaker reflects on their experiences and the last stanza connects both of these time periods. -</p>





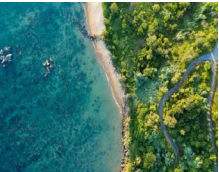

<b>Homing - Liz Berry</b>		<b>A century later - Imtiaz Dharker</b>	
<b>Themes:</b> place, identity, relationships, memory	<b>Tone:</b> critical, reclamation	<b>Themes:</b> identity, oppression, change	<b>Tone:</b> disturbing, triumphant
<p><b>Content, meaning and purpose:</b> The speaker explores the restrictions of the black country dialect within the education system. The speaker explores their hometown in the black country.</p> 	<p><b>Context:</b> Liz Berry was born and raised in the Black Country, near Birmingham. The region has a strong influence on many of her poems.</p>	<p><b>Content, meaning and purpose:</b> The poem explores the female struggle historically and across the globe to access an education. It explores how knowledge is power, and it compares the battleground of the school to the more traditional battleground of armed warfare and the conflict between opposing soldiers.</p> 	<p><b>Context:</b> The poet alludes to the the shooting of Malala Yousafzai in 2012. The poem was written in 2014, 100 years after the start of the First World War.</p>
<p><b>Language:</b> “Coal” “railway” “blacksmiths furnace” industrial imagery of the speakers hometown “Box” The speaker uses a box as a metaphor to symbolise the struggles faced with her identity.</p>	<p><b>Form and structure:</b> -First person narrative perspective -Written in free verse - reflecting that they are not conforming to ‘standard’ structures -Consists of 25 lines arranged into five stanzas of equal length.</p>	<p><b>Language:</b> -“Battle” “firing-line” “missiles” semantic field or war/battlefield to draw comparison to the struggles young people are facing.</p>	<p><b>Form and structure:</b> -Quatrain stanzas -Two couplet stanzas - The lines are structured with short and concise statements, reflecting a straightforward and assertive tone.</p>
<b>The Jewellery Maker - Louisa Adjoa Parker</b>		<b>With Birds You’re Never Lonely - Raymond Antrobus</b>	
<b>Themes:</b> natural world, relationships, identity	<b>Tone:</b> calm, enamored	<b>Themes:</b> damage to the natural world, memory, loneliness	<b>Tone:</b> overwhelmed
<p><b>Content, meaning and purpose:</b> Parker explores the day and life of a male jewellery maker who takes great pride in his world. The poem explores the beauty of his work using vivid imagery of the natural world.</p> 	<p><b>Context:</b> -English-Ghanaian heritage who lives in South West England -Adjoa Parker gives voice to rural racism, black history, mental health and marginalisation.</p>	<p><b>Content, meaning and purpose:</b> The poem explores the importance of living within a nurturing environment. The speaker shares their experience in the Zelandia forest and compares the calming and culturally enriching environment with the bustling nature of inner cities.</p> 	<p><b>Context:</b> Raymond Antrobus was born in Hackney, London, in 1986 to a Jamaican father and an English mother. Although he was born deaf, this was not discovered until he was six years old.</p>
<p><b>Language:</b> -“flowers bloom; silvery moons wax and wane” - vivid imagery of the natural world -“the way a surgeon might – neat as soldiers.” simile highlights the care and precision taken in his work.</p>	<p><b>Form and structure:</b> Three stanzas - two six line stanzas -Final stanza has seven lines -lack of regular rhyme and rhythm and use of enjambment mirrors the movements of the jewellery maker</p>	<p><b>Language:</b> -“spoons slam, steam rises” sibilance highlights the overwhelmingly harsh nature of the sensory overload in the city</p>	<p><b>Form and structure:</b> -Written in couplets, -Final single line may be a warning to those who fail to embrace the natural world.</p>

<b>A Portable Paradise - Roger Robinson</b>		<b>Like an Heiress - Grace Nichols</b>	
<b>Themes:</b> relationships, prejudice, place, identity memory	<b>Tone:</b> enamored, nostalgic	<b>Themes:</b> identity, place, identity, damage to the natural world	<b>Tone:</b> disappointed, nostalgic
<b>Content, meaning and purpose:</b> This poem is about holding onto paradise in the midst of an environment that seeks to steal or quash it. The speaker references their grandmother encouraged them to hold onto this peaceful paradise. 	<b>Context:</b> -Robinson was born in 1967 in Hackney, East London but move to Trinidad at the age of four. -His poems explore Recurring themes in Robinson's work are the power of identity, Black culture and appreciation of the everyday items.	<b>Content, meaning and purpose:</b> Nichols returns to her home nation (Guyana) where she notices that she feels less immersed in her culture. Rather, she sees herself like a 'tourist' in her home country. Nichols also explores the damaging effects climate change has on the 	<b>Context:</b> -Grace Nichols was born in Guyana in 1950. -Nichols is known for inciting critical thinking and change on major social topics such as police brutality, gentrification and climate change.
<b>Language:</b> "white sands, green hills and fresh fish." - imagery of the natural world, hinting at a tropical country "hum its anthem under your breath." - Personifying the paradise to encapsulate the poets links to identity and belonging	<b>Form and structure:</b> -The poem is part of an extract from a longer poem but also functions as a self-contained stand-alone entry. -The use of caesura and enjambment provides its loose, conversational feel.	<b>Language:</b> "Like an heiress" simile highlights her pride in her identity but also her disconnect from her homeland. "Wave of rubbish" metaphor emphasises the poets disdain for the treatment of the planet by humans.	<b>Form and structure:</b> -Sonnet form -the poem starts off in iambic pentameter but shifts to free verse -poet trying to distance herself from western ideas/ structures

<b>Thirteen - Caleb Femi</b>	
<b>Themes:</b> relationships,journeys,place,oppression,id entity	<b>Tone:</b> Innocence, questioning
<b>Content, meaning and purpose:</b> The speaker recounts his experience being questioned by police for the crime of a man when only 13 years old.The poem explores the structural racism: specifically the police. 	<b>Context:</b> Caleb Femi was born in Nigeria in 1990. He emigrated to the UK at the age of seven and lived in Peckham.
<b>Language:</b> -"Supernovas" "little stars" semantic field lightness contrasted with darkness. -"Fed" colloquial language uses to encapsulate the poets strong tie to his identity	<b>Form and structure:</b> - The poem is written in free verse and split into four uneven stanzas with an irregular meter. - The narrative form captures colloquial speech across London.



**Big concepts:**  
 Humans' impact on the environment  
 Systemic Racism  
 Identity and belonging  
 Power and Oppression  
 Colonialism  
 Reform and Revolution  
 Prejudice  
 Migration  
 Romanticism

Anchor Poems		Contextual concepts
<p><b>Thirteen - Caleb Femi</b></p> <p>The speaker recounts his experience being questioned by police for the crime of a man when only 13 years old. The poem explores the structural racism specifically the police. Caleb Femi was born in Nigeria in 1990. He emigrated to the UK at the age of seven and lived in Peckham.</p> <p><i>“Supernovas” “little stars”</i> semantic field of lightness contrasted with darkness.</p>  <p><i>“Fed”</i> colloquial language uses to encapsulate the poets strong tie to his identity</p>	<p><b>Like An Heiress - Grace Nichols</b></p> <p>Nichols returns to her home nation (Guyana) where she notices that she feels less immersed in her culture. Rather, she sees herself like a ‘tourist’ in her home country. Nichols also explores the damaging effects climate change has on the planet. Grace Nichols was born in Guyana in 1950. Nichols is known for inciting critical thinking and change on major social topics such as police brutality, gentrification and climate change.</p> <p><i>“Like an heiress”</i> simile highlights her pride in her identity but also her disconnect from her homeland.</p> <p><i>“Wave of rubbish”</i> metaphor emphasises the poets disdain for the treatment of the planet by humans.</p> 	<p><b>Humans’ impact on the environment:</b> Humans impact the physical environment in many ways: overpopulation, pollution, burning fossil fuels, and deforestation. Changes like these have triggered climate change, soil erosion, poor air quality, and undrinkable water.</p> <p><b>Systemic Racism:</b> Policies that exist throughout a whole society or organization that result in and support a continued unfair advantage to some people and unfair or harmful treatment of others based on race or ethnic group.</p> <p><b>Identity and belonging:</b> National and cultural identity is explored as something that can create a sense of belonging, but can also alienate and exclude where diversity is not recognised and celebrated.</p> <p><b>Power and Oppression:</b> Many of the poems explore misuse of power and privilege by rulers, nations and individuals. We see the impact on both individuals and communities.</p> <p><b>Colonialism:</b> A practice or policy of control by one people or power over other people or areas, often by establishing colonies and generally with an economic aim. The British Museum holds many artefacts as a result of colonial exploitation of people and countries.</p> <p><b>Reform and Revolution:</b> Some people in society help lead societal reform (change) that challenges current government rules and societal norms. Malala Yousafazi speaks out about girls education and many climate justice and anti-racism groups, such as Black Lives Matter, speak up against current societal injustices.</p> <p><b>Prejudice:</b> A negative attitude toward an individual based solely on one’s membership in a particular social group. Many of our poets have faced prejudice because of their race, class, culture or gender.</p> <p><b>Migration:</b> People may have to negotiate loss and separation from country of origin, family members and familiar customs and traditions; exposure to a new physical environment; and the need to navigate unfamiliar cultural experiences.</p> <p><b>Romanticism:</b> Romanticism describes developments in literature, art and music in the late 18th and early 19th century. Some key Romantic ideas include a focus on the power of nature, imagination, revolution, the world of children and the lives of people marginalised in society.</p>
<p><b>A Portable Paradise - Roger Robinson</b></p> <p>This poem is about holding onto paradise in the midst of an environment that seeks to steal or quash it. The speaker references their grandmother encouraged them to hold onto this peaceful paradise.</p> <p><i>“white sands, green hills and fresh fish.”</i> - imagery of the natural world, hinting at a tropical country</p> <p><i>“hum its anthem under your breath.”</i> - Personifying the paradise to encapsulate the poets links to identity and belonging</p> 	<p><b>England in 1819 - Percy Bysshe Shelley</b></p> <p>A political poem that criticises the condition of England in 1819. The monarchy and the government are criticised and the difficult living conditions of the poor are exposed. Shelley is a Romantic poet and refers to King George III, the ‘mad king’, Prime Minister Lord Liverpool and the Peterloo Massacre. If you published this poem in 1819, you were at risk of being imprisoned.</p> <p><i>“Leechlike to their fainting country cling’</i> simile suggests that rulers are taking resources from the starving poor.</p> <p>Personification <i>‘fainting’</i> highlights the ill state of England.</p> 	



**Key vocabulary and definitions**

<b>Industrial Revolution</b>	Move to new methods of manufacturing (factories) in the period from about 1760 to sometime between 1820 and 1840.
<b>liberticide</b>	Destruction of freedom
<b>Punjabi</b>	The language spoken in the Punjab region of India
<b>Echo chamber</b>	An environment where people only encounter beliefs that reflect their own
<b>Rama &amp; Sita</b>	Hindu Gods
<b>exploit</b>	To take advantage of for own gain.
<b>artefacts</b>	An object of historical or cultural interest
<b>diaspora</b>	The scattering of people away from where they originally lived
<b>elocution</b>	Standard forms of pronunciation
<b>nostalgia</b>	A sentimental longing or affection for a period in the past.
<b>Heiress</b>	A women who inherits considerable wealth
<b>oppression</b>	Cruel or unjust treatment.
<b>perspectives</b>	Viewpoints or outlooks.
<b>supernova</b>	When a star's life ends in a bright explosion
<b>revolution</b>	An overthrow of government or power.
<b>tyrant</b>	A cruel and oppressive ruler.
<b>Quakers</b>	Followers of a religious movement that came from Christianity in 17th century England.



*Worlds and Lives Poetry*

**Poetic features, devices and suggested effects**

<b>1st person narrative voice</b>	We see from only one person's point of view - is it biased? Reliable? More personal?
<b>2nd person narrative voice</b>	Speaks directly to the reader - challenging? Pleading? Forceful?
<b>3rd person narrative voice</b>	Tells a story that happens to others. Can suggest the narrator is omniscient or god-like and all-knowing.
<b>Alliteration</b>	The repetition of identical consonant sounds at the beginning of words. Can help to create the mood or tone.
<b>Anaphora</b>	Repetition of the same word or phrase at the beginning of a line throughout a poem.
<b>Caesura</b>	A pause or stop in the middle of a line of poetry. This can be shown by a full stop, comma, dash or colon.
<b>Couplet</b>	Two successive rhyming lines. Couplets end the pattern of a Shakespearean sonnet.
<b>Enjambment</b>	<i>Sentences running over onto the next poetry line.</i> Can suggest spontaneous, unplanned thoughts.

**Poetic features, devices and suggested effects**

<b>Imagery</b>	Language that creates a picture in our mind to help convey the ideas of attitudes of the poem.
<b>Metaphor</b>	A comparison between two unlike things, this describes one thing as if it were something else.
<b>Onomatopoeia</b>	Helps create a vivid image of something by appealing to the senses
<b>Opening and ending</b>	How does the poem begin: what impact does it try to create? How does it end? Does it link to the beginning?
<b>Oxymoron / juxtaposition</b>	Emphasises a contrast, highlights an idea, or creates a sense of confusion
<b>Personification</b>	Attributing human characteristics to nonhuman things.
<b>Powerful words</b>	What do you associate with them / what feeling do they create?
<b>Repetition</b>	Draws attention to a key word or phrase - why is that important to the poem?
<b>Rhyme</b>	Can emphasise a keyword - explain why that word is significant.
<b>Short sentences</b>	Creates and builds tension. If repeated can add excitement and build pace.
<b>Simile</b>	A direct comparison between two dissimilar things; uses "like" or "as".
<b>Sonnet</b>	A poem with fourteen lines of rhyming iambic pentameter.
<b>Speaker</b>	The voice / narrator of the poem.
<b>Stanza</b>	What we call paragraphs in poems. The meters and rhymes are usually repeating or systematic.

# Year 11

## Food Preparation & Nutrition

**Macronutrients:** Nutrients that are needed in large amounts

**Micronutrients:** Nutrients that are needed in small amounts

**Complementary Actions:** Some nutrients need to work together for the body to utilise them fully. For instance

**Vitamin c** is needed to **absorb iron** and **vitamin D** is needed to **absorb calcium**

**Protein:** Proteins fall into 2 groups: HBV (High Biological Value) and LBV (Low Biological Value). HBV contain all the essential amino acids that the body needs whereas LBVs are missing more than one.

**HBV:** Meat, Dairy, Fish, Eggs, Chicken, Quorn, Tofu, Soya  
**LBV:** Chickpeas, Lentils, Nuts, Kidney beans, cereals (wheat, rice etc) and peas.

**Vitamin A:** needed to maintain healthy eyes & see in dim light.

**Vitamin C:** needed by the body to fight infections. Most fruit contains vitamin C, especially citrus fruits. Needed also to absorb iron

**Vitamin D:** Needed by to maintain healthy skin And needed to absorb calcium

Nutrient	Function	Source
<b>Carbohydrates</b>	-Broken into Starch and Sugar -Starch foods are called complex carbohydrates and release energy over a long period of time. -Sugar are called simple carbohydrate. They release energy quickly. Lactose, Fructose and Sucrose are all Sugars.	
<b>Fibre</b>	-Prevents constipation -Absorbs poisonous waste from digestive food -Stays undigested but helps move digested food through our system	
<b>Protein</b>	-Helps repair and grow new cells (muscles and body tissue) -Provides some energy	
<b>Fat</b>	-Insulates the body from the cold -Cushions your bones and organs from any damage caused by knocks. -Stores energy	
<b>Vitamins</b>	Unlike the other nutrients, they are only needed in small amounts. They are generally used to: -Controls chemical reactions -Keeping the body healthy and preventing some diseases linked to a poor diet -Regulate the function and repair of cells	
<b>Minerals</b>	Unlike the other nutrients, they are only needed in small amounts. They are generally used to: -Turn the food we eat into energy -Build strong bones and teeth - Control body fluids	
<b>Water</b>	-Our bodies are 65% water. It is vital for our body to stay hydrated. -Chemical reactions in our cells take place in water. -Waste products are passed out of our bodies in water. -Our blood transports substances that are dissolved in water. -Water is in sweat that cools us down	

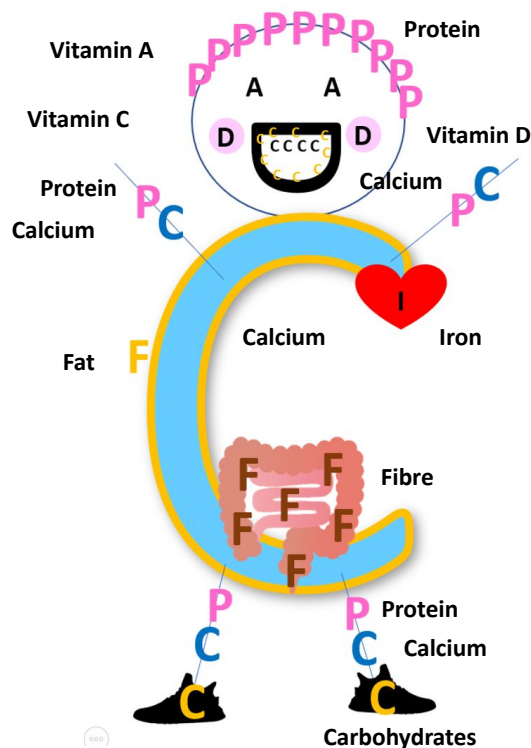
**Whole grain** foods are high in **fibre**. It can also be found in the skins of fruits

**Saturated fats = bad fats.** Found in meat, dairy, processed and fried foods

**Unsaturated fats = good fats.** Both should be eaten in small amounts as fat is energy dense

**Iron** found in red meat and spinach. Needed to create red blood cells.  
**Vitamin C** is needed to absorb iron

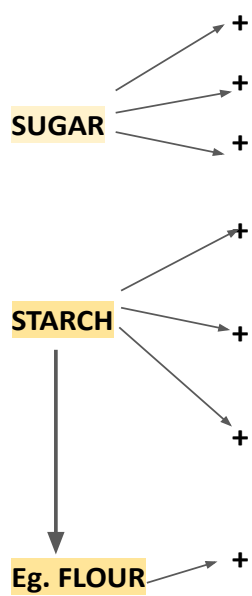
**Calcium** found in all dairy foods. Needed to grow and maintain bones, teeth and fingers nails.  
**Vitamin D** is needed so calcium can be absorbed



Try to remember the Nutrients person, when thinking about the functions of nutrients in the body

**Function of Ingredients**

CARBOHYDRATES



\*A foam is air suspended in a liquid

**Warm Water + Yeast + Sugar = Activates the yeast**  
 Warm water provides the correct temperature for the yeast to work and the sugar provides food

- + **Egg Whites + Whisking = Creates and Stabilises a \*Foam**
- + **Butter + Creaming Technique = Traps air and aerates the mixture**
- + **Heat = Caramelisation: change in taste, the food becomes sweeter**

- + **Heat = Dextrinisation: when dry heat reacts with starch (so when a cake goes in the oven), the starch starts to break down into dextrins causing the outside to go brown**
- + **Liquid + Heat = Bulking: when a starchy food like potatoes or pasta absorbs water and as a result increases in volume, getting bigger as well become more soft in texture**
- + **Liquid + Heat = Gelatinisation: when flour or potatoes are added to thicken a sauce or soup. The starch molecules absorb the liquid and get bigger and burst causing the sauce to thicken.**

- + **Water = Combines Ingredients**
- + **Water = Creates GLUTEN**

**GLUTEN + Kneading = stretched gluten, increases elasticity and creates gluten network**

**GLUTEN + Heat = Coagulation: causing the structure to set**

**GLUTEN + Butter (through the Rubbing in technique) = Creates a waterproof coating preventing water from being absorbed and therefore shortening or limiting the amount of gluten developed. Resulting in a crumbly texture, e.g. Mince Pies**

**GLUTEN / Butter = Butter in between layers of gluten, separates the layers of dough/layers of gluten. Resulting in a flaky texture. Eg Sausage Rolls**

Gluten is a type of protein found in wheat  
 Eggs are also a common protein used in cooking

PROTEIN

**PROTEIN + HEAT or ACID or AGITATION = DENATURATION: The chemical bonds holding the chains of amino acids break causing the chains to unravel and making the protein molecule bigger.**

**DENATURED PROTEIN MOLECULE + HEAT = COAGULATION: This sets the structure of the protein. Can trap moisture and other ingredients in this process.**



# Challenges in the human environment - The changing economic world

Development is a term that measures how advanced a country is compared to others. It relates to standard of living, quality of life and wealth.

- **GDP (Gross Domestic Product):** The total value of goods and services produced by a country in a year
- **Life expectancy** - the average age to which a person lives
- **Infant mortality rate** - counts the number of babies, per 1000 live births, who die under the age of one.
- **Poverty Line:** the minimum level of income to meet a person's basic needs. The World Bank considers this to be \$1.25 per day.
- **Dependency ratio:** the proportion of people who are too young (0-14) or too old (over 65) to work."It is calculated by adding both groups together and dividing that by the number aged 15-64 (the working population) and multiplied by 100. The lower the number, the greater the number of people able to work.
- **Literacy rate:** is the percentage of adults who can read and write.
- **Maternal mortality:** The number of mothers per 100000 who die in childbirth.
- **Access to safe drinking water:** the percentage of the population with access to an improved water supply.

## The Human Development Index (HDI)

Some countries with a high GDP have a very unequal distribution of wealth e.g. Qatar and the United Arab Emirates The UN created the HDI to measure development. It consists of a single figure between 0 and 1 (the higher the number, the better). HDI is calculated using three indicators. These are: life expectancy, literacy rate & years of schooling & GDP per capita (using PPPs). GDP and HDI are closely linked - poorest countries in the world for GDP have the lowest HDI.

## Factors contributing to development

**Trade:** Trade and investment play a key role in economic development. Investment is important in increasing its trade. However, 2 billion people live in countries where trade has fallen in relation to national income. This results in less links to global systems and therefore means less FDI for the country.

**Fair Trade:** Poor countries argue that world trade is unfair. Under fair trade small-scale producers group together to form a cooperative. The cooperatives cut out the 'middlemen' and deal directly with companies in developed countries. This gives farmers more money and therefore a better standard of living. They also then have additional money to reinvest into their farms.

**Aid:** assistance in the form of grants or loans at below market rates. Aid forms a vital part of the income for many poor countries. Most developing countries have been keen to accept foreign aid for several reasons:

**Foreign exchange gap:** countries do not have enough money to pay for imports e.g. machinery that is needed for development

**Technical gap:** caused by a shortage of skills needed for development

**Two types of international aid:** official government aid and voluntary aid. What is important is how the aid is spent, not necessarily the amount. Critics of foreign aid say it can be wasteful and create a culture of dependency

**Importance of remittances:** International migrants send money back to their families in the country of origin. These remittances can be very important in fighting poverty and helping economic development.

**Debt relief:** Western governments (USA) encourage conservation by agreeing to cancel some of the debt they are owed if the other country (Costa Rica) spends that money protecting their environment. Heavily Indebted Poor Countries (HIPC) Initiative established by the IMF and World Bank approves debt reduction in developing countries. 36 countries, with debts of US\$7 billion have had debt-service relief since 1990.

**Consequences of global inequality**

**Economic** - About 1 in 5 of the world's population live on less than \$1 a day, almost half on less than \$2 a day. Developing countries frequently lack the ability to pay for food, agricultural innovation and investment in rural development.

**Social** - More than 775 million people in developing countries cannot read or write. Nearly 1 billion people do not have access to clean water or sanitation. Many developing countries do not have the ability to combat the effect of HIV / AIDs.

**Environmental** - Developing countries have increased vulnerability to natural disasters. They lack the capacity to adapt to climate-change-induced droughts. Poor farming practices lead to environmental degradation. Raw materials are exploited with limited economic benefit to developing countries and little concern for the environment.

**Political** - Some developing countries have non-democratic governments or they are democracies that function poorly.

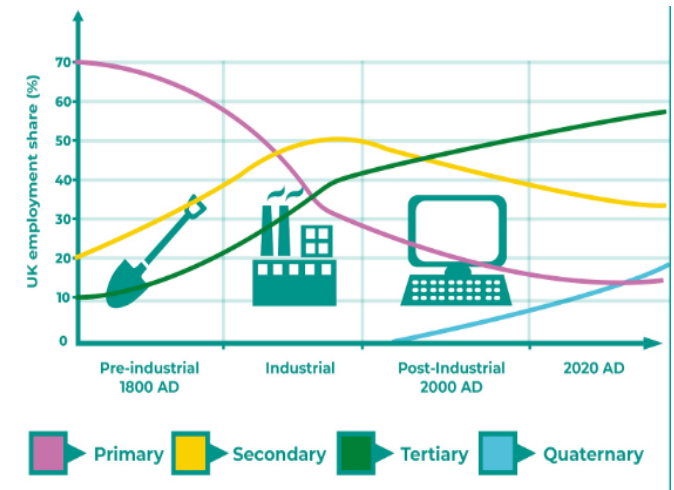
**Migration** International migration can be a major consequence of inequality between countries. Globalisation has led to increased awareness of opportunities in developed countries. With advances in transportation and a reduction in the relative cost, the potential mobility of the world's population has never been higher

High income countries (HICs)	Newly emerging economies (NEEs)	Low income countries (LICs)
GNI per capita is higher.	Increasing GNI per capita due to a move from agricultural economies to manufacturing.	Lower GNI per capita.
Most people have very high living standards.	Living standards are improving.	Most people have very low standards of living.

Source: Oak National

**Case study: UK Economy**

There are four main employment sectors and the numbers of people employed in them changes over time.



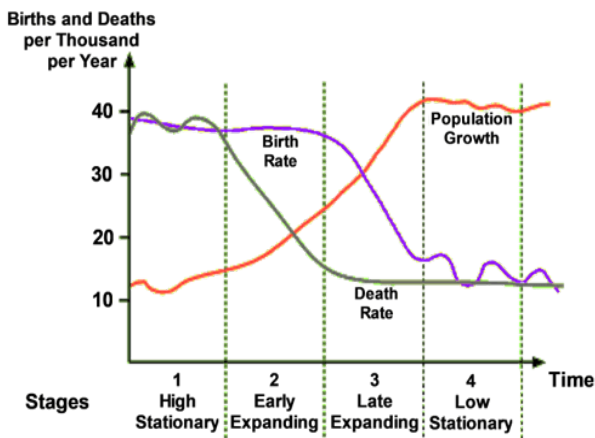
Source: Oak National

The UK's economy was once based upon manufacturing but this has declined and tertiary and quaternary sectors are now the biggest sectors.

Recent economic change has been affected by:

1. De-industrialisation
2. Globalisation
3. Government policies.

**Demographic Transition Model**



The DTM shows changes over time in the population of a country. It is based on the changes that took place in Western countries such as the UK. The gap between the birth rate and death rate is called **natural change**.

**Reducing the development gap**

**Investment** - many countries and TNCs invest in LICs/NEs providing employment and leading to the multiplier effect as infrastructure is developed. However this can have social consequences with poor working conditions and the impact of **neo colonialism**.

**Tourism** - for some countries tourism has helped to reduce the development gap. If a country becomes highly dependent on tourism this has disadvantages during economic recessions and global pandemics.

**Aid** - there are different types of aid including, money (grant) emergency supplies, skills which can be donated on a short term or long term basis. Tied aid is given with certain conditions such as spending the aid money on the donors resources.

**Intermediate technology** - this is suitable technology that is appropriate to the skills, knowledge and wealth of local people which often takes the form of small scale projects for example [bottle lights](#) in the Philippines.

Free trade - tariffs and quotas imposed disadvantage countries producing low value goods and widen the development gap. Free trade occurs when they are not imposed.

**Exploring Nigeria**

**Loacton:** West Africa

**Global importance:** NEE, supplies 2.5% of the world's oil,. 5th largest contributor to the UN.

**Importance in Africa:** It has one of the fastest growing economies, 3rd largest manufacturing sector, largest population of any African country of over 182 million. Highest farm output in Africa.

**Nigeria context**

**Social:** multi ethnic & multi faith. population growth rate of 2.6% per year. Internet users 42%.

**Economic:** GNI per capita \$5700 46% of the population are in poverty (UN defined). There are huge regional variations in levels of wealth. 60% of children in urban areas have access to free schooling compared with 36% in rural areas.

**Environmental:** Wide range of ecosystems from lowlands with high temperatures and

**Impacts of TNCs in Nigeria**

- 40 TNCs operate in Nigeria
- Provide employment, new skills and develop infrastructure
- Local workers are sometimes poorly paid & poor working conditions
- Unilever employs 1500 people and was voted the second best place to work in Nigeria in 2014.
- Oil is extracted from the Niger Delta by Shell, bringing major tax contributions and supporting the growth of the energy sector but oil spills have caused high levels of pollution.





Source: Oak National

high annual rainfall to Northern Nigeria where there is semi-desert and grasslands.  
**Political:** Gained independence from Britain in 1960. Civil war between 1967-1970. Stable government since 1999. Many countries including China are now investing in Nigeria.  
**Cultural:** has a rich and varied culture. Nigerian cinema 'Nollywood' is the second largest film industry in the world. Globally famous writers include Chimamanda Ngozi Adichie & Wole Soyinka. The Nigerian football team has won the Africa Cup of Nations three times.

**Impacts of aid**

- 100 million people live on less than \$1 a day (£0.63)
- 4% of aid to Africa is received by Nigeria.
- Small scale loans are given to businesses to reduce the dependency on oil revenues.
- USA aid is used to help educate & protect people about HIV/AIDs and
- Nets for life provide anti-mosquito nets to reduce the spread of malaria.

**Environmental Issues**

- 70-80% of Nigeria's forests have been destroyed
- Desertification is a major problems made worse by large scale dams and irrigation schemes
- waste disposal & traffic congestion are issues in urban areas
- Mining has led to soil erosion and oil spills have impacted the ecosystems in the Niger delta.

**Keywords**

**LIC - Low income country** Defined by the world bank as countries with a GNI of less than \$1045 per year.  
**NEE - Newly Emerging Country** A country whose economy is rapidly growing,  
**HIC - High income country** Defined by the world bank as countries with a GNI of more than \$12,696 per year.  
**Transnational corporation:** A global business that operates in more than one country e.g. Nike.

**UK factfile**

<b>GNI per capita 2021</b>	\$47,334
<b>Population</b>	67,326,569
<b>Life expectancy</b>	81
<b>Access to electricity</b>	100%
<b>Forest cover</b>	13.7

**Nigeria fact file**

<b>GDP per capita 2020</b>	\$2085
<b>Population</b>	211,400,704
<b>Life expectancy</b>	55
<b>Access to electricity</b>	55%
<b>Forest cover</b>	23.7%

**Weimar and Nazi Germany 1918-39: KT1: The Weimar Republic, 1918-29**  
**Summary:** The Weimar Republic was the name given to Germany after the Kaiser had abdicated in November 1918. This was a time of despair and hope for Germany. At first, the country faced lots of chaos but under Gustav Stresemann, there was some stability.

Key events	
2	<b>1918</b> World War One ended. The Kaiser abdicated and Germany became a country without a monarch (a Republic).
3	<b>1919 January</b> Spartacist Uprising
4	<b>1919 June</b> Signing of the Treaty of Versailles
5	<b>1919 August</b> Weimar Constitution finalised
6	<b>1920</b> Kapp Putsch
7	<b>1923</b> French occupation of the Ruhr and hyperinflation
8	<b>1924</b> Dawes Plan
9	<b>1925</b> Locarno Pact
10	<b>1926</b> Germany joins League of Nations
11	<b>1928</b> Kellogg Briand Pact
12	<b>1929</b> Young Plan

Key Concepts	
13	<b>The Weimar Republic</b> faced much opposition, It was disliked by the left wing who wanted Germany to be like Communist Russia and it was disliked by the right wing who wanted the monarchy back.
14	<b>The Treaty of Versailles</b> caused many problems for Germany. The German people disliked the politicians for signing it and it caused political problems and economic problems.
15	<b>Gustav Stresemann</b> helped to bring about recovery in Germany after 1924. He solved economic problems by making friends with other countries. However, historians have very different views about the extent of this recovery.
16	<b>The Golden Age</b> was the period from 1924-29 and it saw significant changes in culture, the standard of living and the position of women.

Key Words		
17	<b>Abdication</b>	When a monarch leaves the throne
18	<b>Republic</b>	A country without a King or a Queen
19	<b>Ebert</b>	The first President of the Republic
20	<b>Stresemann</b>	The Chancellor of Germany from the Summer of 1923
21	<b>Article 48</b>	The President could use this to ignore the Reichstag and rule as he saw fit
22	<b>Kaiser</b>	King
23	<b>Armistice</b>	An agreement to end war
24	<b>Weimar</b>	The new government could not meet in Berlin as it was so dangerous, so they met here instead
25	<b>Constitution</b>	This is an agreement about how the country would be ruled
26	<b>Reichstag</b>	German parliament
27	<b>Gewaltfrieden</b>	An enforced peace
28	<b>Freikorps</b>	Ex military soldiers who wanted to overthrow the Republic
29	<b>Rentenmark</b>	The currency of Germany after November 1923
30	<b>Hyperinflation</b>	When money loses its value
31	<b>Dawes Plan</b>	An agreement where the USA would lend Germany money
32	<b>Young Plan</b>	This lowered the reparations payment and gave Germany longer to pay
33	<b>Treaty of Versailles</b>	This decided how Germany was going to be treated after WW1
34	<b>Locarno Pact</b>	An agreement on borders signed by Britain, France, Italy and Belgium
35	<b>Kellogg Briand Pact</b>	65 countries including Germany agreed to resolve conflict peacefully
36	<b>Coalition</b>	A government of two or more political parties

**Weimar and Nazi Germany 1918-39 : KT2: Hitler's Rise to Power, 1919-33**

**Summary:** Hitler sets up the Nazi Party in 1920 and becomes Chancellor in January 1933. This happens for a variety of reasons – Hitler's strengths, inbuilt problems of the Weimar Republic, and the weaknesses of others.

Key events		Key Words		
2	<b>1919</b> Hitler joins the German Workers Party	18	<b>NSDAP</b>	The Nazis
3	<b>1920</b> Hitler sets up the Nazi Party	19	<b>Iron Cross Award</b>	Given for bravery in war
4	<b>1921</b> Hitler introduces the SA	20	<b>Volk</b>	The notion of pure German people
5	<b>1923</b> The Munich Putsch	21	<b>25 Point Programme</b>	The political manifesto of the Nazi Party
6	<b>1925</b> Mein Kampf published	22	<b>Völkischer Beobachter</b>	People's Observer, a Nazi newspaper
7	<b>1926</b> Bamberg Conference	23	<b>Fuhrerprinzip</b>	Belief that one person should run a Party
8	<b>1928</b> Nazis win 12 seats in Reichstag	24	<b>Swastika</b>	Emblem of the Nazi Party
9	<b>1929</b> Death of Stresemann and Wall Street Crash	25	<b>SA or Sturmabteilung</b>	Private army of the Nazi Party headed by Himmler
10	<b>1930</b> Nazis won 107 seats in Reichstag	26	<b>Aryan</b>	Pure German people
11	<b>1932 July</b> Nazis win 230 seats in Reichstag	27	<b>Anti-Semitism</b>	Hatred of the Jewish people
12	<b>1932 November</b> Nazis win 196 seats in Reichstag	28	<b>Mein Kampf</b>	Hitler's autobiography
13	<b>1933 January</b> Hitler becomes Chancellor	29	<b>Putsch</b>	An attempt to get power illegally
<b>Key Concepts</b>		30	<b>Blood Martyrs</b>	16 Nazis who died at the Munich Putsch
14	<b>The Munich Putsch</b> is a significant event. Although a failure, Hitler gained publicity, he wrote Mein Kampf and he realised that if he was to win power, he needed to do this by votes and not by force.	31	<b>Gaue</b>	Local party branches
15	<b>Stable Stresemann</b> caused problems for the popularity of the Nazi Party. When times were good, voters were not attracted to the Nazi policies.	32	<b>SS or Schutzstaffel</b>	Hitler's bodyguards
16	<b>The Wall Street Crash</b> was a major turning point in the fortunes of the Nazi Party. The Nazi message did not change but people were now prepared to hear it.	33	<b>KPD</b>	German Communist Party
17	<b>The Backstairs Intrigue</b> - At a time when Nazi popularity at the polls was decreasing, Hitler was handed power by political elites who feared a Communist take over and Civil War.	34	<b>Propaganda</b>	Goebbels attempted to make people think in a certain way
		35	<b>Hindenburg</b>	The President of the Republic from 1925 to 1934
		36	<b>Roter Frontkämpferbund</b>	The Communist's own private army












**Weimar and Nazi Germany 1918-39 : KT3: Nazi Control and Dictatorship**  
**Summary:** This was a time when Hitler formed a legal dictatorship and put in place methods of propaganda and censorship to persuade and encourage all Germany people to support Nazi ideals.

Key events		Key Words		
2	<b>1933 January</b> Hitler becomes Chancellor	15	<b>Marinus van der Lubbe</b>	The Reichstag Fire was blamed on this Communist
3	<b>1933 February</b> Reichstag Fire	16	<b>Enabling Act</b>	Gave the Nazis full power for the next 4 years
4	<b>1933 March</b> Nazis win 288 seats	17	<b>Gleichschaltung</b>	Hitler's attempt to bring German society into line with Nazi philosophy
5	<b>1933 March</b> Enabling Act passed	18	<b>German Labour Front (DAF)</b>	Set up to replace Trade Unions
6	<b>1933 July</b> Nazis become the only legal party in Germany	19	<b>Dachau</b>	First concentration camp
7	<b>1934 June</b> Night of the Long Knives	20	<b>Centralisation</b>	Germany had been divided into districts called Lander. Now Germany was run from Berlin alone
8	<b>1934 August</b> President Hindenburg dies	21	<b>Purge</b>	To get rid of opposition
9	<b>1934 August</b> Hitler combines the post of Chancellor and President and becomes Fuhrer	22	<b>Gestapo</b>	Secret police headed by Goering.
10	<b>1934 August</b> German army swears allegiance to Hitler	23	<b>Night of the Long Knives</b>	Removal on internal and external opposition
11	<b>1938</b> Over the course of the year, Hitler removes 16 army generals from their positions	24	<b>Sicherheitsdienst (SD)</b>	The intelligence body of the Nazi Party
<b>Key Concepts</b>		25	<b>Concordat</b>	In July 1933 the Pope agreed to stay out of political matters if the Nazis did not interfere with Catholic affairs
12	<b>Removal</b> – From 1933 to 1934, Hitler removed all opposition and established himself as Fuhrer.	26	<b>Edelweiss Pirates and Swing Youth</b>	Groups who opposed the Hitler Youth
13	<b>Control</b> – There was an attempt to control and influence attitudes. This was done by propaganda and terror.	27	<b>Confessional Church</b>	Followed traditional German Protestantism and refused to allow the Nazification of religion. Led by Pastor Martin Niemoller
14	<b>Opposition</b> – The youth and the churches opposed the regime.	28	<b>Mit Brennender Sorge (With Burning Concern)</b>	The Pope wrote to priests in Germany about his concerns over the Nazi attempts to control religion

**Weimar and Nazi Germany 1918-39: KT4: Life in Nazi Germany, 1933-39**




**Summary:** The lives of German citizens were changed after Hitler's appointment as Chancellor. For some, life was better under the Nazis but for others, it was much worse.

Key events		Key Words	
2	<b>1933</b> Boycott of Jewish shops and businesses. Law for the Encouragement of Marriage. Sterilisation Law passed.	13	<b>Kinder, Küche, Kirche</b> Children, Kitchen, Church. This summed up the Nazi ideal of womanhood
3	<b>1935</b> The Nuremberg Laws were passed.	14	<b>The Motherhood Cross Award</b> Given to women for large families
4	<b>1935</b> Conscription introduced.	15	<b>Lebensborn</b> Where unmarried women were impregnated by SS men.
5	<b>1936</b> Membership of the Hitler Youth made compulsory.	16	<b>Napola</b> Schools intended to train the future leaders of Germany
6	<b>1938</b> Jewish children were not allowed to attend German schools. Lebensborn programme introduced. Kristallnacht.	17	<b>Nazi Teachers League</b> All teachers had to swear an oath of loyalty to the Nazis
7	<b>1939</b> The euthanasia campaign began. Designated Jewish ghettos established.	18	<b>Reich Labour Service</b> A scheme to provide young men with manual labour jobs
Key Concepts		19	<b>Invisible unemployment</b> The Nazi unemployment figures did not include women, Jews, opponent
9	<b>Anti-Semitism</b> – Persecution of the Jews grew continuously after 1933.	20	<b>Autobahn</b> Motorway
10	<b>Young</b> – The Nazis placed much emphasis on controlling the young as only then could they secure a 'thousand year Reich'. Youth organisations and education indoctrinated the German youth.	21	<b>Rearmament</b> Building up the armed forces in readiness for war
11	<b>Women</b> – The Nazis had traditional family values but even these were tested by the needs of war and the desire to ensure a growing Aryan population.	22	<b>Volksgemeinschaft</b> The Nazi community
12	<b>Living Standards</b> – The Nazis did reduce unemployment but they did this by banning Jews and women from the workplace and by putting Germany on a war footing. Workers had limited rights.	23	<b>Strength Through Joy</b> An attempt to improve the leisure time of German workers
		24	<b>Beauty of Labour</b> Tried to improve working conditions of German workers.
		25	<b>Volkswagen</b> People's car
		26	<b>Eintopf</b> A one pot dish
		27	<b>Herrenvolk</b> The master race or the Aryans
		28	<b>Nuremberg Laws</b> Jews were stripped of their citizenship rights and marriage between Jews and no Jews was forbidden
		29	<b>Kristallnacht (Night of the Broken Glass)</b> A Nazi sponsored event against the Jewish community

A: Angle Facts	
	Angles on a straight line add up to 180°
	Angles around a point add to 360°
	Vertically opposite angles are equal
	Angles in a triangle add up to 180°
	Angles in a quadrilateral add up to 360°
	Base angles in an isosceles triangle are equal
	Corresponding angles are equal
	Alternate angles are equal
	Co-interior angles add up to 180°

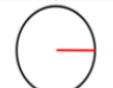
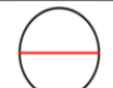

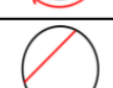
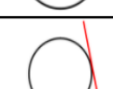
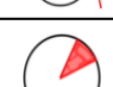
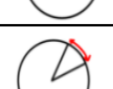
B: Transformations	
Rotation	Angle Direction Centre of rotation
Reflection	Line of symmetry
Translation	Vector
Enlargement	Scale Factor Centre of enlargement

## Maths Knowledge Organiser Year 11 (FOUNDATION)

C: Trigonometry		
Hypotenuse	The longest side opposite the right angle	
Opposite	The side opposite the given angle	
Adjacent	The side between the angle and the right angle	
Function	Formula Triangle	Equation
Sin		$\sin \theta = \frac{\text{opposite}}{\text{hypotenuse}}$
Cos		$\cos \theta = \frac{\text{adjacent}}{\text{hypotenuse}}$
Tan		$\tan \theta = \frac{\text{opposite}}{\text{adjacent}}$

D: Equation of a straight line	
Equation	$y = mx + c$
Gradient	m
y-intercept	c
Gradient between $(x_1, y_1)$ and $(x_2, y_2)$	$\frac{y_2 - y_1}{x_2 - x_1}$
Parallel lines...	...have the same gradient
Midpoint	$\left( \frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2} \right)$

E: Angles in polygons	
Sum of interior angles	$(n - 2) \times 180$
One interior angle	$\frac{(n - 2) \times 180}{2}$
One Exterior angle	$\frac{360}{n}$
Interior + Exterior angle	180

F: Circles	
	radius
	diameter
	circumference
	chord
	tangent
	sector
	arc

G: Index Laws	
$a^m \times a^n$	$a^{m+n}$
$a^m \div a^n$	$a^{m-n}$
$(a^m)^n$	$a^{mn}$
$a^{-n}$	$\frac{1}{a^n}$
$a^{1/n}$	$\sqrt[n]{a}$

H: Number	
Square Numbers	1, 4, 9, 16, 25, 36, 49, 64, 81, 100, 121, 144, ...
Cube Numbers	1, 8, 27, 64, 125, 216, 343, 512, 729, 1000...
Prime Numbers	2, 3, 5, 7, 11, 13, 17, 19, 23, 29, ...
Fibonacci	0, 1, 1, 2, 3, 5, 8, 13, 21, 34, ...

I: Averages and range	
Mean	Add up all the numbers and divide by the number of numbers
Median	Put the numbers in order and find the middle number
Mode	The most common number
Range	Biggest number – smallest number



## Maths Knowledge Organiser Year 11 (HIGHER)

### A: Angle Facts

	Angles on a straight line add up to 180°
	Angles around a point add to 360°
	Vertically opposite angles are equal
	Angles in a triangle add up to 180°
	Angles in a quadrilateral add up to 360°
	Base angles in an isosceles triangle are equal
	Corresponding angles are equal
	Alternate angles are equal

### B: Transformations

Rotation	Angle Direction Centre of rotation
Reflection	Line of symmetry
Translation	Vector
Enlargement	Scale Factor Centre of enlargement

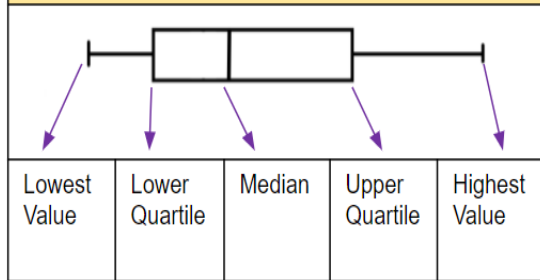
### C: Trigonometry

Sin		$\sin \theta = \frac{\text{opposite}}{\text{hypotenuse}}$
Cos		$\cos \theta = \frac{\text{adjacent}}{\text{hypotenuse}}$
Tan		$\tan \theta = \frac{\text{opposite}}{\text{adjacent}}$

### E: Angles in polygons

Sum of interior angles	$(n - 2) \times 180$
One interior angle	$\frac{(n - 2) \times 180}{2}$
One Exterior angle	$\frac{360}{n}$
Interior + Exterior angle	180

### F: Box Plots



### D: Circle Theorems

Diagram	Theorem
	The angle in a semi-circle is 90°
	The angle at the centre is twice the angle at the circumference
	Angles in the same segment are equal
	Opposite angles in a cyclic quadrilateral are equal
	The angle between the radius and the tangent is 90°
	Alternate Segment Theorem
	The tangents to a circle from the same point are equal
	The radius through the midpoint of the chord will bisect the chord at 90°

### J: Frequency Polygons and Cumulative Frequency

Type of graph	What do I plot?	How do I join the points?
Frequency Polygon	(midpoint, frequency)	Straight lines using a ruler
Cumulative Frequency	(endpoint, frequency)	Smooth curved. A stretched "S"

### G: Index Laws

$a^m \times a^n$	$a^{m+n}$
$a^m \div a^n$	$a^{m-n}$
$(a^m)^n$	$a^{mn}$
$a^{-n}$	$\frac{1}{a^n}$
$a^{1/n}$	$\sqrt[n]{a}$

### H: Similar Shapes

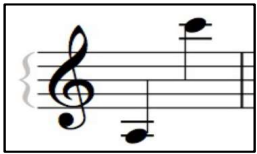
LSF	Linear Scale Factor
ASF	$(LSF)^2$
VSF	$(LSF)^3$

### I: Histograms

Frequency =	FD x CW
Frequency Density =	F ÷ CW

# Melody – Knowledge Organiser

## Pitch



How high or low a note is

## Interval



The distance between any two notes.

## Motif



A fragment of a melody.

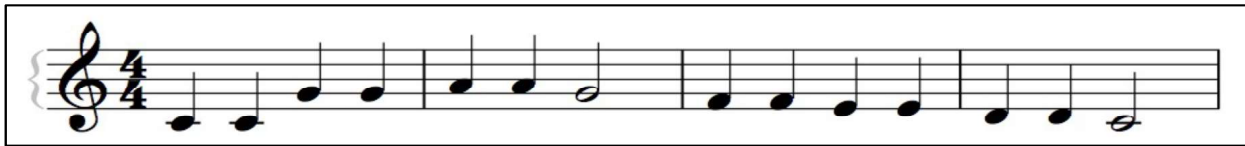
## Range



The difference between the lowest and highest notes

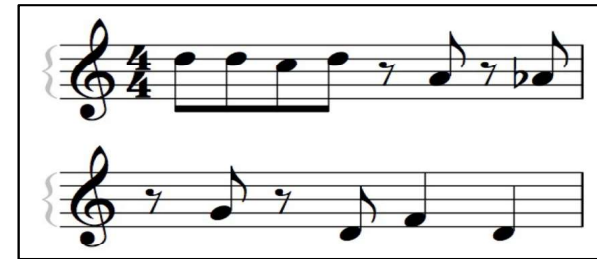
## Phrase

A longer melodic idea. Musical “sentences” are constructed from phrases.



## Hook/riff

A memorable repeated melodic idea designed to catch the ear of the listener.



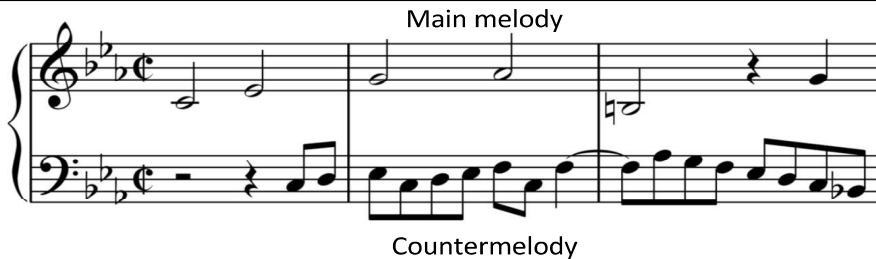
## Melodic movement

- Steps** – movement between notes that are next to each other in the scale
- Skips** – movement equal to two steps. You “skip” over a note in the scale
- Leaps** – any movement that is larger than a skip
- Scalic** – when a section of a melody moves along using notes in scale order
- Chromatic** – movement using steps including notes that are not in the key
- Passing note** – notes which link chord tones

## Scale/mode

A group of notes which a melody is based on e.g. major, minor, blues, chromatic, dorian

## Counter melody



## Compositional devices

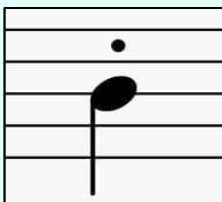
- Repetition** – repeat a melodic idea
- Sequence** – repeat a melodic idea but starting on a different note
- Imitation** – repeat a melodic idea in another instrument
- Variation** – change the melodic idea slightly
- Ostinato** – constant repetition of a melodic idea
- Inversion** – turn the melodic idea upside down
- Retrograde** – play the melodic idea backwards

MUSIC

## Articulation – Knowledge Organiser

**ARTICULATION** means *how* you play or sing a note. It is an important part of performing music **EXPRESSIVELY**.

### Staccato



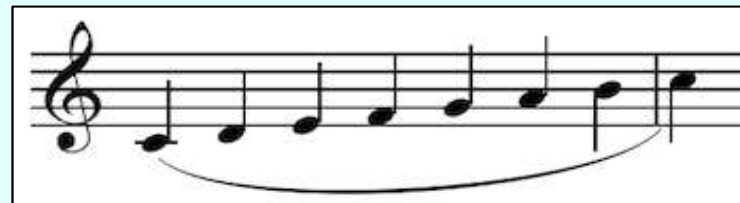
Performed short and briefly. Notes sound detached from each other.

### Accent



Emphasise a note so that it sounds louder than others.

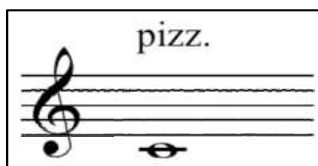
### Legato



Perform the notes smoothly. Notes sound connected to each other. A smooth articulation between two notes is called a **SLUR**.

### Orchestral Strings

#### Pizzicato



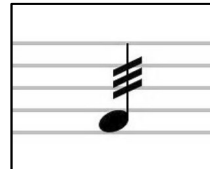
Perform the notes by plucking them with the fingers.

#### Arco



Perform the notes by using the bow.

#### Tremolo



Continuously play the note with the bow rapidly to produce a trembling effect.

### Other Articulations

**Vibrato** – a slight “wobbling” of the pitch of a note for expression. An important vocal technique as well as for instruments.

**Tonguing** – the technique used by brass and wind players. Faster rhythms often require the technique of double or triple tonguing.

**Bend** – guitarists can use their fingers to bend the string from one note to another. Brass and wind players can also do this with different mouth shape and air pressure.

### Sforzando



A sforzando is a type of accent. The note should be played with a sudden, strong emphasis.

### Slides

**Glissando** – a dramatic slide between a wide range of notes. For example, running the fingers along the strings of a harp.

**Portamento** – a smooth slide between two notes. Used frequently by singers.



## Dynamics – Knowledge Organiser

**DYNAMICS** refer to how loud or soft music is played. It is an important part of performing music **EXPRESSIVELY**.

Fortissimo *ff* **VERY LOUD**

Forte *f* **LOUD**

Mezzo-forte *mf* **Fairly Loud**

Mezzo-piano *mp* **Fairly Soft**

Piano *p* **Soft**

Pianissimo *pp* **Very Soft**



On a musical score the dynamic markings are always placed **UNDERNEATH** the stave.

Sometimes composers place extreme dynamic markings on a score to express that they want the music to be played as loud or as soft as is humanly possible!

*ffff*  
*pppp*

### Crescendo



Gradually getting louder

### Diminuendo



Gradually getting softer

# Texture – Knowledge Organiser

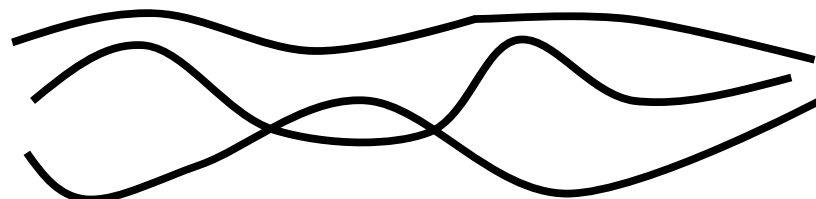
**TEXTURE** is what we call the different layers and parts of a musical piece and how they fit together.

## Monophonic



A single melodic voice or instrument

## Polyphonic



Different musical lines that interweave with each other

## Homophonic



A texture based on chords

### Examples of THIN texture

Solo instrument  
Acoustic guitar and vocal  
Piano and cello

### Examples of THICK texture

An orchestra  
A rock band  
A samba ensemble

## Counterpoint



Two or more different melodies playing together.

## Unison

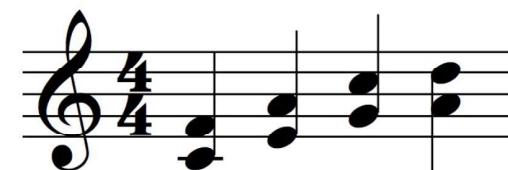
When two or more voices or instruments sing/play exactly the same thing at the same time

## Melody and accompaniment

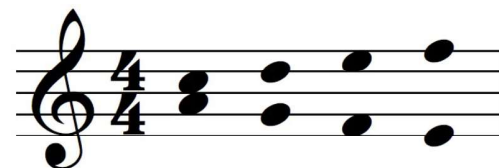


## Parallel Motion

Notes moving in the same direction keeping the same interval.



## Contrary motion



Notes moving in opposite directions; one up, the other down.

# Structure and Form – Knowledge Organiser

**STRUCTURE** - the different sections of a piece or music and how they are ordered.

## Typical Pop Song Structure

**Intro – Verse 1 – Verse 2 – Chorus – Verse 3 – Middle 8/Bridge – Verse 4 – Chorus – Outro**

<b>Intro</b>	<b>Binary Form</b>  Music that has two sections. These are labelled A and B.  <b>A B</b>	<b>Ternary Form</b>  Music that has three sections. The A section is heard again after B.  <b>A B A</b>	<b>Rondo Form</b>  A recurring theme (A) contrasted by different sections.  <b>A B A C A D A E</b>
<b>Verses</b>			
<b>Choruses</b>	<b>Theme &amp; Variation</b>		
<b>Middle 8/Bridge</b>	<p>All the choruses usually have the same lyrics. This section relays the main message of the song.</p> <p>A composition can be developed using the <b>VARIATION</b> technique. A main theme is composed then the following sections vary this theme in some way, by altering for example:</p> <p><b>MELODY – RHYTHMS – CHORDS – TEMPO – INSTRUMENTATION – KEY</b></p>		
<b>Instrumental Solo</b>	<b>Strophic Form</b>	<b>Through Composed</b>	
<p>Solos are designed to show off an instrumentalists skills. Rock, jazz and blues often feature solos on instruments such as piano, sax, guitar and drums</p>	<p>When all of the verses are sung to the same music.</p>	<p>When each section has different music. No section is repeated.</p>	

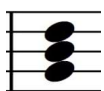
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# Harmony – Knowledge Organiser

**HARMONY** – how chords are used in a piece of music.

**Triad**



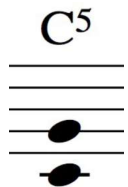
A basic type of chord made up of three notes

**Inversion**



Rearranging the order of the individual notes of a chord

**Power Chord**



A chord using only the 1<sup>st</sup> and 5<sup>th</sup> scale degrees; no 3<sup>rd</sup>

**Arpeggio** – playing the individual notes of a chord one after another

**Cadence** – a movement between two chords at the end of a phrase

**Chromatic** – music that uses chords that are not naturally found in the key

**Diatonic** – music that use only chords that belong to the key

**Dominant** – the fifth chord (V) of a key

**Harmonic rhythm** – the rate at which the chords change in a piece

**Modulation** – when the harmony shifts to a new key

**Primary triads** – chords I IV and V in a key

**Progression** – a sequence of chords put together

**Seventh** – adding the 7<sup>th</sup> degree of the scale to a triad

**Tonic** – the first chord (I) in a key

## Chord Functions in a Key – Roman Numeral System

C	Dm	Em	F	G	Am	Bdim
I	ii	iii	IV	V	vi	vii <sup>o</sup>

## Building Chords Using Scale Degrees

C	D	E	F	G	A	B
1	2	3	4	5	6	7

Example: Minor triads are built using the 1 b3 and 5 degrees of a scale so a C minor triad contains the notes C Eb G

**Major Triad**

1 3 5

**Minor Triad**

1 b3 5

**Major 7<sup>th</sup> chord**

1 3 5 7

**Minor 7<sup>th</sup> chord**

1 b3 5 b7

**Dominant 7<sup>th</sup> chord**

1 3 5 b7

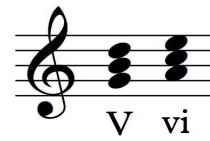
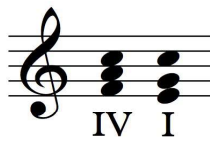
**Perfect Cadence**  
"The strongest one"

**Plagal Cadence**  
"The Amen one"

**Imperfect Cadence**  
"The cliffhanger one"

**Interrupted Cadence**  
"The hidden twist one"

## Chord Symbol



# Instrumentation (Orchestral) – Knowledge Organiser

## Strings



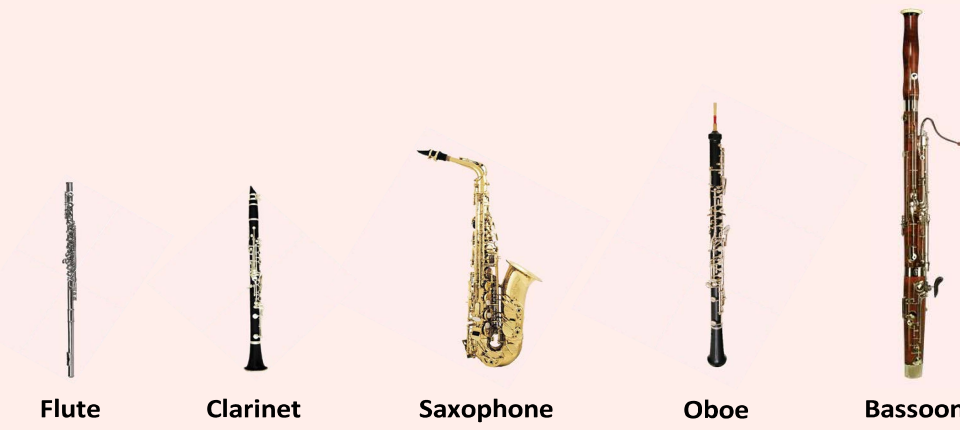
Violin Viola Cello Bass Harp

## Brass



Trumpet French horn Trombone Tuba

## Woodwind



Flute Clarinet Saxophone Oboe Bassoon

## Percussion



Timpani Snare Drum Cymbals Tambourine Chimes Xylophone Bass Drum Glockenspiel

## Keyboard Instruments



Harpsichord Piano Organ

MUSIC

# Instrumentation (Rock and Pop) – Knowledge Organiser



Electric Guitar



Acoustic Guitar



Bass Guitar



Drum Kit



Lead Vocals



Backing Vocals



Brass Section



String Section



Piano



Electric Piano



Organ

## Technology



Synthesizer



Guitar Effects



Sampling/  
Looping



MIDI Sequencing/Recording  
Software



Effects Processors



Amplifier

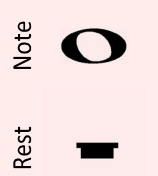




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# Rhythm – Knowledge Organiser



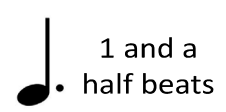

When you combine any two or more notes or rests you create a **RHYTHM**.

## Basic Note and Rest Lengths

Semibreve	Minim	Crotchet	Quaver	Semiquaver
4 Beats	2 Beats	1 Beat	½ Beat	¼ Beat
			 <p>Adjacent quavers can be joined together with a <b>BEAM</b></p>	 <p>Adjacent semiquavers can be joined together with a <b>BEAM</b></p>

## Dotted Notes and Rests

A dot placed after a note or rest tells you to increase the note or rest by **HALF ITS ORIGINAL VALUE**

 1 Beat	 2 Beats
 1 and a half beats	 3 Beats

## Types of Rhythms

This bass line would be described as having a **CROTCHET** rhythm



**DOTTED MINIM and SEMIQUAVER** rhythm



### POLYRHYTHM

Two or more different rhythms with the same **METRE** played at the same time

### CROSS RHYTHM

Two or more rhythms played at the same time but with conflicting **ACCENTS** often in different **METRES**



## Ties

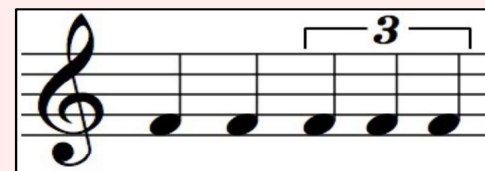
A **TIE** joins two notes of different values



Here you would play the first note and hold it for 3 beats (2+1)

## Triplets

A **TRIPLET** is 3 notes played where there is usually only space for 2



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# Tempo – Knowledge Organiser

**TEMPO** means how fast or slow a piece of music is – it is the speed of music

The **TEMPO** of a piece of music is most commonly indicated in two ways – an Italian word and beats per minute (**B.P.M.**)

Italian term	English meaning	B.P.M.
Largo	Slowly and broadly	40 - 60
Adagio	Slowly (but not as slow as largo)	60 - 75
Andante	At a walking pace	75 - 105
Moderato	At a moderate pace	105 - 120
Allegro	Quite fast	120 - 155
Vivace	Quick and lively	155 - 175
Presto	Very fast	175 - 200

Tempo markings are placed at the start of the score above the staff



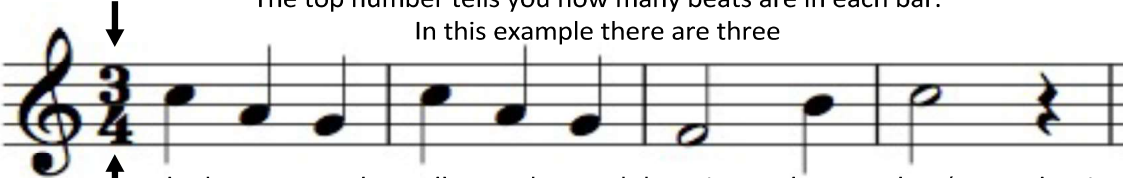
There are also some terms which indicate a change in tempo during a piece

Italian term	English meaning
Accelerando	Gradually speeding up
Ritardando/Rallentando	Gradually slowing down
Ritenuto	A sudden slowing down
Rubato	A highly expressive technique where a performer plays with flexible tempo

# Time Signature – Knowledge Organiser

A **TIME SIGNATURE** gives you information on how the beats are arranged in a piece of music. It is also known as **METRE**

The top number tells you how many beats are in each bar.  
In this example there are three

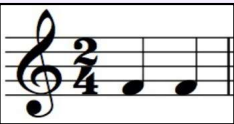
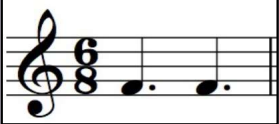

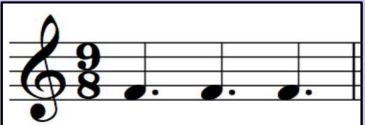
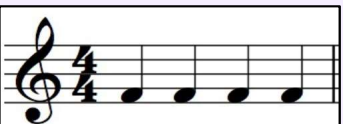



The bottom number tells you that each beat is worth a crotchet (a crotchet is also known as a quarter note hence the number 4 used to denote it)

Number **2** on the bottom = **MINIMS**

Number **4** on the bottom = **CROTCHETS**

Number **8** on the bottom = **QUAVERS**

Simple Metre	Compound Metre
	
	
	

There are two main types of metre: **SIMPLE** and **COMPOUND**

Simple time signatures have beats that can be broken down into two notes

Compound time signatures have beats that can be broken down into three notes.

In compound time signatures each beat is represented by a dotted crotchet which can be broken down into three quavers



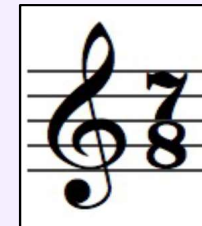
The vast majority of music is written with a 4/4 time signature.

This is so common it is known as **COMMON TIME** and can be denoted using a letter C instead of using numbers



### IRREGULAR METRE

Sometimes music is written in a metre containing odd numbers of beats in each bar



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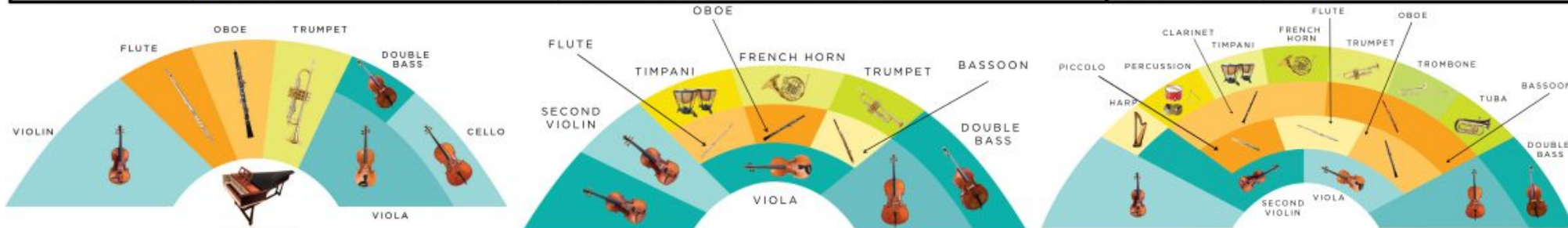


# AoS2: Concerto Through Time

What is a Concerto?		Key Terms	
<b>1. Solo and Orchestra</b>	Uses a solo instrument (solo concerto) OR a group of soloists (concerto grosso) with an orchestral	<b>1. Acciaccatura</b>	An ornament: a very quick, "crushed" grace note (before the main note)
<b>2. Three Movements</b>	1. Fast 2. Slow 3. Fast	<b>2. Alberti Bass</b>	A broken chord accompaniment figure, usually played in quavers
<b>3. Virtuosity</b>	The soloist shows off the capabilities of the instruments and or the solo performer	<b>3. Appoggiatura</b>	A slightly longer grace note
<b>4. Metre</b>	Common or Simple time most commonly used in concertos (4/4; 3/4; 6/8)	<b>4. Cadenza</b>	Orchestra stops whilst the soloist has a virtuosic solo section (sometimes improvised)
<b>5. Chromatic Harmony</b>			Harmony that uses complex chords, using notes that are not part of the scale (accidentals)
			<b>6. Concertino</b> The group of soloists in a concerto grosso
			<b>7. Concerto Grosso</b> A concerto with a group of soloists instead of just one
			<b>8. Continuo</b> Continuous bass line, played by a bass instrument (cello) and a chord instrument (harpichord)
			<b>9. Contrapuntal</b> Polyphonic. Lots of independents melodic lines playing together.
			<b>10. Diatonic Harmony</b> Music in a major or minor key - often based around primary chords
			<b>11. Doubled</b> When the melody is played by another instrument
			<b>12. Ground Bass</b> A short repetitive theme in the bass line whilst other parts vary over the top
			<b>13. Mordent</b> An ornament: changing quickly to the note above or below the main note.
			<b>14. Ornament</b> Decorative notes, e.g.: acciaccaturas, appoggiaturas, trills etc
			<b>15. Ripieno</b> The orchestral backing in a concerto grosso
			<b>16. Rubato</b> Momentarily not keeping to strict tempo to allow a slight quicken/slow of expression
			<b>17. Sequence</b> When a melodic idea/motif is repeated higher or lower each time
			<b>18. Terraced Dynamics</b> Either loud or soft. No crescendo or diminuendo
			<b>19. Trill</b> An ornament: alternating quickly between two notes next to each other
			<b>20. Tutti</b> A section of music where everybody plays
			<b>21. Valves</b> On brass instruments they allow all notes to be played (as opposed to just the harmonic series)
			<b>22. Virtuosity</b> Difficult to play/showing off

Baroque		Classical		Romantic	
1600-1750	Corelli; Vivaldi; Bach	1750-1810	Mozart; Haydn; Beethoven	1810-1910	Brahms; Tchaikovsky; Mendelssohn
1. <b>Small orchestra</b> , consisting of strings and <b>continuo</b> section (bass line and chords)		1. <b>Medium sized orchestra</b> , with separate woodwind section including clarinets. <b>No continuo</b>		1. <b>Large orchestra</b> , more likely to include large <b>brass</b> and <b>percussion</b> sections	
2. <b>Concerto Grosso</b> very popular during this period		2. More likely to have <b>horns</b> and <b>timpani</b> used and contrasting dynamics with <b>cresc</b> and <b>dim</b>		2. <b>Brass</b> instruments now have <b>valves</b> giving them a larger range	
3. <b>Diatonic harmony</b> , mostly based on <b>primary chords</b> (I, IV, V)		3. <b>Diatonic harmony</b> still		3. Solo concertos much <b>longer</b> , more <b>virtuosic</b> and <b>cadenzas</b> not longer improvised but written	
4. Heavy use of <b>ornamentation</b>		4. Use of <b>equal length question and answer phrases</b> , known as <b>periodic phrasing</b>		4. More <b>chromatic harmony</b> , creating more <b>dissonance</b> , allowing more emotional/dramatic moods	
5. Often uses <b>contrapuntal</b> texture and use of <b>sequence</b> a lot to develop melody		5. <b>Melody and accompaniment</b> main type of texture, with orchestra often playing <b>homophonically</b>		5. <b>More contrasting dynamics, tonality and pitch</b> used to create emotional/dramatic moods	
6. <b>Terraced</b> dynamics due to the use of the <b>harpichord</b>		6. Introduction of <b>cadenzas</b> at the end of the first movement in particular		6. <b>Modulations</b> to more <b>distantly related</b> keys.	

Changes to the Orchestra		
Strings	Violin; Viola; Cello; Double Bass	The number of strings increases to be able to be heard over the growing orchestra over time.
Woodwind	Flute; Oboe; Bassoon	+ Clarinets + Piccolo; Cor anglais; Bass clarinet; Contrabassoon
Brass	Trumpet; Horn (rarely used)	Used more often + Trombone; Tuba
Percussion	Timpani	+ Snare; Bass drum; Cymbals; Glockenspiel
Other	Harpichord	Harpichord fell out of use with the invention of the piano





AoS3: Rhythms of the World			
Indian Subcontinent			Key Terms
Indian Classical			
1. It is highly <b>improvised</b> , with performers communicating with each other throughout the performance		2. Melodic lines are heavily <b>ornamented</b> using techniques such as <b>pitch/note bend, runs and glissando</b>	3. Famous performers include <b>Ravi Shankar</b> (sitar) and <b>Alla Rakha</b> (tabla)
<b>1. Raga</b>	A set of pitches, similar to a scale, used as the basis of the improvised melody	<b>5. Alap</b>	The opening section - slow and only with the raga and drone instruments playing
<b>2. Drone</b>	A repeated note or set of notes repeated throughout a piece	<b>6. Gat</b>	The main, middle section - a clear pulse is developed with the introduction of the tala
<b>3. Tala</b>	A cycle of beats that repeat and are played by the tabla	<b>7. Jhala</b>	The fast climax of the piece
<b>4. Sitar</b>	A stringed, guitar-like instrument. Its distinctive sound is due to a number of 'sympathetic strings'	<b>8. Tanpura</b>	A stringed instrument used to play the drone
<b>9. Sarangi</b>	A stringed, violin-like instrument played with a bow	<b>10. Bansuri</b>	A wooden flute used in Indian Classical music
<b>11. Sarod</b>	A lute used in Indian Classical music	<b>12. Tabla</b>	A pair of drums, with a wide variety of sounds and pitches
<b>4. Synthesiser</b>	An electronic keyboard instrument	<b>5. Sampling</b>	Taking an extract from one recording and using it in another
<b>6. Harmonium</b>	A small keyboard instrument which requires pumping bellows to produce a sound similar to an accordion	<b>1. Dhol</b>	Double-headed barrel drum, played with a stick
<b>2. Tumbi</b>	A high-pitched, single-stringed instrument	<b>3. Chaal</b>	The rhythm used in bhanga, played on the dhol and tumbi
<b>1. Vocal melodies have a small range, but are heavily ornamented using microtonal intervals</b>		<b>2. Most modern bhanga follows a standard pop song structure, and contains shouts of "Hoi" on the off beats</b>	
<b>3. Famous performers include Punjabi MC</b>			
Mediterranean and Middle eastern			
Greek	Palestinian	Israeli	
1. <b>Irregular</b> time signatures (5/8, 7/8) are often used, but not always, with the use of <b>irregular rhythms</b> played using <b>accented notes</b>	1. Melodies are <b>improvised</b> around the <b>maqam</b> with lots of <b>ornamentation</b> . Vocals are highly <b>melismatic</b>	1. Israeli music tends to adopt <b>more Western musical instruments</b> , rather than Arabic, like Palestinian music	
2. Simple melodies with lots of <b>ornamentation</b> , often <b>harmonised in thirds</b>	2. Textures can be <b>monophonic</b> , however often <b>heterophonic</b> textures can be heard with multiple instruments playing and decorating melody lines at once	2. Melodies most often played on <b>violin, clarinet or accordion</b> with heavy <b>ornamentation</b>	
3. Major and minor chords used, with the <b>tonic and dominant notes</b> of the chord emphasised in the <b>bass</b>	3. Usually in 2/4 or 4/4, with a <b>fast tempo</b> for dancing, which has a gradual <b>accelerando</b>	4. <b>Melody and accompaniment</b> texture with <b>chords played off-beat and bass playing every beat</b> , often playing <b>alternating tonic and dominant notes</b>	
<b>1. Bouzouki</b>	A stringed instrument that is played using a plectrum, similar to a guitar.	<b>2. Wazn</b>	A rhythmic pattern of beats that repeat and are played by the tabla
<b>2. Defi</b>	A Greek hand drum with bangles attached.	<b>3. Oud</b>	A pear-shaped stringed instrument played with a pick.
<b>3. Doumbek</b>	A goblet drum, similar to a djembe, but played with a lighter, faster touch.	<b>4. Zither</b>	Similar sounding to a harp, this string instrument is played on ones lap and plucked or strummed
<b>1. Hammer on</b>	Sharply bringing a finger down on the fingerboard of a stringed instrument, causing a note to sound		
<b>2. Pull off</b>	"Pulling" the finger off a string on a fingerboard of stringed instrument, causing a note to change in pitch		
African Drumming			
1. Learnt <b>aurally</b> African drumming relies on layers of <b>ostinato</b> which have a <b>steady pulse</b>			
2. Played for <b>entertainment</b> but also at special events such as <b>weddings, births and funerals</b>			
<b>1. Master Drummer</b>	The leader of the group in n African ensemble, often the most virtuosic of the group		
<b>2. Agogo</b>	A bell like instrument that can produce two pitches		
<b>3. Dundun</b>	A large double headed drum played with a stick		
<b>4. Djembe</b>	A single headed, goblet drum that is played with the hands		
<b>5. Marimba</b>	A percussion instrument with wooden bars that are hit with mallets		
<b>6. Mbira</b>	A wooden board with metal lines on it that are plucked with thumbs		
<b>7. Shekere</b>	A rattle made from a hollowed out gourd covered in beads		
<b>8. Talking drum</b>	A drum played with a hooked stick, and contains string that can be tightened and loosened to alter the pitch		
Latin and South American			
Calyпсо	Samba		
1. Originally <b>song often accompanied by one instrument</b> with lyric that tell a story or commented on politics/society	1. In 2/4 or 4/4 it is highly <b>polyrhythmic</b> and uses <b>call and response between the repinique player and the rest of the ensemble</b>		
2. Famous calypso artists include <b>Mighty Sparrow</b> , but now calypso is more commonly associated with performance on <b>steel pans</b>	2. <b>Moderately fast</b> tempo using sudden stops to create excitement in the otherwise repetitive style known as the <b>batacuda</b>		
3. Simple harmony using the <b>primary chords</b> , often played in a <b>major key</b>	<b>1. Agogo</b>	A bell like instrument that can produce two pitches	
4. Verse/chorus structure in 4/4 time with <b>syncopated</b> and <b>dotted rhythms</b>	<b>2. Apito</b>	A whistle used in Samba	
<b>1. Tenor/ping ping</b>	Highest pitch steel pans that play the melody		
<b>2. Altos/guitars/cellos</b>	Steel pans that play the chords		
<b>3. Bass</b>	Low pitch steel pans that play the bass line of the music		
<b>3. Batacuda</b>	African-influences Brazilian percussive style, played by an ensemble known as a bateria		
<b>4. Clave rhythm</b>	The rhythm used in Samba usually played on the claves		
<b>5. Claves</b>	An instrument consisting of two sticks beaten together		
<b>6. Conga</b>	Two tall drums of equal height but different diameters, which create different pitches		
<b>7. Cowbell</b>	Percussion bell		
<b>8. Cuica</b>	A friction drum with a large pitch range, produced by changing tension on the head of the drum.		
<b>9. Guiro</b>	A percussion instrument consisting of a notched gourd which is scraped by a stick		
<b>10. Repinique</b>	High pitch Tom Tom drum that is played by the leader of the ensemble		
<b>11. Surdo</b>	Large drum which provides the basic rhythmic pulse of the music		
<b>12. Timbale</b>	Two small drums played with sticks, sounding like high pitched tom-toms		

## AoS4: Film and Video Game Music

Key Ideas		Key Terms			
1. Purpose	Music in a film is there to set the scene, enhance the mood, tell the audience things that the visuals cannot, or manipulate their feelings. Sound effects are not music!	1. Click Track	A click metronome heard by musicians through headphones as they perform to keep in time	5. Mickey Mousing	When music fits exactly with a specific action on screen
2. Theme Song	Sometimes a song, usually a pop song, is used as a theme song for a film. This helps with marketing and publicity.	2. Cues	The parts of the film that require music. This is agreed between the director and composer	6. Non-diegetic	Music that is not part of the action: the audience can hear it but the character in the film cannot
3. Video Game Music	Music for video games fulfils a very similar function to that of film music.	3. Diegetic	Music that is part of the action: the characters in the film can actually hear the music	7. Sync point	A precise moment where the music needs to fit with an action
<b>Composing to enhance a mood:</b>		4. Leitmotif	A short melody that is associated with a character or idea in a film	8. Underscore	Music played underneath action or dialogue - used to set a mood
War/Military	1. Use of simple/duple metre will work for a military style drum beat	<b>Pitch &amp; Melody</b>		<b>Harmony &amp; Tonality</b>	
	2. Percussion instruments used to help depict a military band, including snare, bass drum and cymbals.	1. Arpeggio/Broken Chord	Going up or down the notes of a chord one at a time, ascending or descending	1. Atonal	Not in a key - often sounds dissonant
	3. Brass instruments evoke a military feel but also heroism associated with fanfares.	2. Chromatic scale	Going up or down by one semitone at a time	2. Consonant	Not clashing - harmony that sounds nice
Drama	1. Thick textures and rich timbres can help to convey emotion	3. Conjunct/stepwise	Moving up or down by step (notes that are next to each other)	3. Dissonant	Clashing harmony
	2. Often using string instruments	4. Disjunct/leap	Moving up or down by leaps (notes that are further apart from each other)	4. Major/Minor	The key - generally major keys sound happy and minor keys sound sad
	3. Major tonality for epic/triumphant feel. Minor tonality for tragedy/reflectiveness	5. Ostinato	A repeating pattern (can be melodic or rhythmic)	5. Pedal Note	a held note under or over the rest of the music
Horror	1. Sustained/tremolo strings bring tension to a scene, especially when played quietly	<b>Dynamics, expression and articulation</b>		<b>Texture</b>	
	2. Sudden changes in dynamics and pitch prevent the listener from feeling comfortable	1. Accent/Stab	A note that is louder than the ones surrounding it (a chord is known as a stab in film music)	1. Antiphonal	Alternating groups of instruments
	3. Unpleasant/screeching timbres and dissonance	2. Crescendo/Diminuendo	Getting louder/quieter gradually	2. Call and Response	Question and answer
Comedy	1. Faster tempo and major key to help create a bright melody	3. Glissando	A very quick scale, played as fast as possible so that it is as close to a slide as possible	3. Homophonic	Chords
	2. Pizzicato strings and usually a lot of Mickey Mousing	4. Muted	A dampened sound on a brass or string instrument	4. Monophonic	A single melody - no harmony
Tragedy	1. Minor tonality with heavy use of strings	5. Legato	Played smoothly	5. Polyphonic	Many independent lines of music
	2. Slow tempo, unless conveying a panic before a tragedy	6. Pizzicato	When a violin, viola, cello or double bass is plucked (instead of bowed)	6. Octave	The interval of an 8th
	3. Generally quiet dynamics with warm timbres	7. Staccato	Short, detached notes	7. Imitative	A melody repeated a little later by another instrument

MUSIC



## AoS5: Conventions of Pop

Rock n' Roll of the 50s & 60s		Rock Anthems of the 70s & 80s		Pop Ballads of the 70s, 80s & 90s		Solo Artists from 90s to the present	
Small dance hall/clubs or concert halls	Little Richard/Elvis Presley	Clubs/Festivals or Stadiums	Queen/Europe	Clubs/Concert Halls or individual listening	Elton John/Bonnie Tyler	Clubs/Small concert hall or Stadium	Rihanna/Adelle/Ed Sheeran
1. Moderate - fast tempo, with a strong back beat rhythm, in 4/4		1. Moderately fast tempo, in 4/4, with a steady rock beat (often a back beat)		1. Often in 4/4 (sometimes in 6/8 or 3/4) with a slow tempo		1. A range of popular styles including: pop, rock, rap, RnB, electronic and dance	
2. Almost always using primary chords, often using 12 bar blues structure		2. Powerful and uplifting lyrics designed to be sung along with by the audience in the chorus		2. Range of textures to reflect the emotional lyrics of the song		2. More use of electronic instruments and synthesisers with improvements in technology	
3. Melody and accompaniment texture, with homophonic chordal accompaniment		3. Power chords used on electric guitars, to create a melody and accompaniment texture		3. Sentimental lyrics often reflected in the vocals with the use of rubato and melisma		3. Typical band instruments but with more computerised additions and effects	
4. Syncopated walking bass lines, and often swung rhythms in the chords		4. Riffs played by keyboards, electric guitars and bass, with long drum or guitar solos		4. Harmony often using a mix of major and minor chords with inversions		4. Effects like autotune can now be applied to live performances and so are used more creatively	
5. Rock band instruments mostly acoustic: piano, drums, guitar (electric), bass/double bass and brass		5. More electronic sounds using music technology: distortion; overdrive, delay and wah-wah pedals		5. Instruments with a typical band setup (guitar, drums, bass) but with more piano and strings		5. Still often uses a typical pop song structure (as do the other 3 styles)	

### Key Terms

1. A capella	Voices without instrumental accompaniment	11. Glissando	A slide between two notes, when you can hear individual notes (e.g.: like on a piano)	21. Reverb	Effect added to vocals once they have been recorded to add 'warmth' - gives a slight echo
2. Autotune	An effect which alters pitch in vocal and instrumental music recording and performances	12. Hook	The catchy part of the song, often in the chorus	22. Riff	A repeating melodic or rhythmic idea
3. Back beat	A drum beat which emphasises the second and fourth beats of the bar	13. Instrumental break	A section where the singing stops and there is a solo on an instrument	23. Rubato	Momentarily not keeping to strict tempo to allow a slight quicken/slow of expression
4. Bridge	A section that links the verse and chorus. Sometimes called a pre-chorus	14. Looping	Technology-based method of repeating a short musical idea	24. Sampling	A short extract of already composed music and reused in a new piece
5. Broken Chord	Each note of a chord played separately	15. Melisma	Lots of notes sung to a single syllable	25. Scat	Vocal improvisation with nonsense syllables or without words
6. Delay	Electronic effect that delays the sound. Sounds like an exaggerated echo	16. Middle Eight	A section of the song where there is a new, different tune	26. Strumming	Playing all the strings of a guitar at once to play a chord
7. Distortion	An effect used on guitars: a dirty, fuzzy kind of sound	17. Overdrive	An effect like distortion, but more subtle to create a more natural effect and less aggressive	27. Syllabic	Each syllable is sung to a single note
8. Falsetto	High pitched male voice (when he is using his head voice)	18. Panning	Making certain tracks come through different sides of the speakers/headphones (left/right)	28. Turn	Playing the note above, then the main note, then the note below and then back to the main note quickly
9. Fill	At the end of a phrase, the drummer plays a more complex beat for a moment	19. Picking	On guitar, playing one note at a time (as opposed to strumming)	29. Vibrato	Pulsating change of pitch. It is used to add expression
10. Flanger	A guitar effect that makes a whooshing sound	20. Portamento	When a singer slides between notes	30. Wah-Wah pedal	a guitar effects pedal that alters the tone and frequencies to mimicking the human voice saying 'wah-wah'

MUSIC

### Sports Psychology

#### Classification of skill

Skills are specific tasks that can be learnt and practiced. *i.e. Golf swing / Lay up / Tennis volley*

**Continuum = sliding scale of extremes at each end**

#### Environmental influence – Open/Closed Continuum



OPEN



CLOSED

#### Difficulty - Complex/Basic Continuum



COMPLEX



BASIC/SIMPLE

#### Organisation Level - Low/High Continuum



LOW ORGANISED



HIGH ORGANISED

#### Types of Practices

**Massed practice:** When no rest intervals are given.

**Distributed practice:** When a rest interval is given to allow recovery, feedback & coaching.

**Fixed practice:** Uses repetition of the same activity to develop consistency in performance.

**Varied/Variable practice:** Involves or performing a skill in different situations where conditions are changeable.

#### Guidance

**Visual guidance:** Learners are shown the whole action by the coach. *i.e. demonstration/use of video playback.*



**Verbal guidance:** Learners listen to information given to a performer often using associated terminology. *i.e. instructions told to a team.*



**Manual guidance:** Coaches will physically move a performer and support them in performing a skill. *i.e. Trampolining somersault support.*



**Mechanical guidance:** Learners use equipment to help support the practicing of a skill. *i.e. floats during swimming stroke development.*



#### Feedback

Vital part of information processing which provides confidence, motivation and improves performance.

**Intrinsic feedback:** This comes from within the performer. Kinesthetic senses provide feelings from muscles/joints about the action.

**Extrinsic feedback:** This comes from results and match analysis.

1. Knowledge of results – the outcome
2. Knowledge of performance



**Concurrent feedback:** Information provided to the athlete during the performance.

**Terminal feedback:** Information provided to the athlete before or after the performance.

#### Mental Preparation for Performance

**Mental rehearsal/Imagery** involves the athlete imagining themselves in an environment performing a specific activity using all of their senses.

This can be used to:

- Familiarise the athlete with a competition site or a complex play pattern or routine.
- Motivate the athlete by recalling images of their goals or of success in a past competition.
- Perfect skills or skill sequences the athlete is learning or refining.
- Reduce negative thoughts by focusing on positive outcomes.



#### SMART Targets

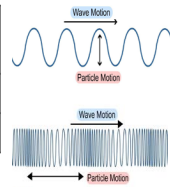
Goal setting motivates performers

- Short Term goals
- Long Term goals
- Outcome goals
- Performance goals

Specific	Measureable	Achievable	Realistic	Time-Bound
Targets must be concise. <i>"To take a 0.5 second off my time personal best time"</i>	Must be measured and compared. <i>"I will time my runs every training session for the next five weeks of training"</i>	Target must be challenging but yet reachable. <i>"My coach and I devised the training programme around improving leg power for my start"</i>	Matched to the performers skill level. <i>"We agreed that a 0.5 seconds off my personal best is realistic for my current ability and status"</i>	Set for a particular time to be completed. <i>"We agreed to do the training programme four times per week for the next five weeks"</i>



Wave speed	Wave speed = frequency X wavelength	
Wave period	Wave period = 1 ÷ frequency	$T = 1 \div f$
Speed	Speed = distance ÷ time	$v = d \div t$



Transverse wave	<b>Vibration causing the wave is at right angles to the direction of energy transfer</b>	Energy is carried outwards by the wave.	Water and light waves, S waves.
Longitudinal wave	<b>Vibration causing the wave is parallel to the direction of energy transfer</b>	Energy is carried along the wave.	Sound waves, P waves.

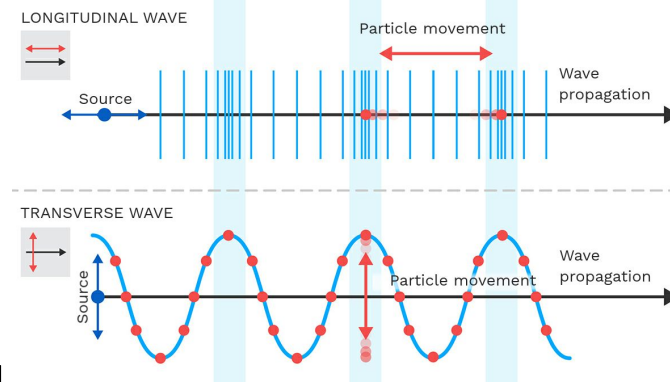
Wavelength	<b>Distance from one point on a wave to the same point of the next wave</b>	
Amplitude	<b>The maximum disturbance from its rest position</b>	
Frequency	<b>Number of waves per second</b>	
Period	<b>Time taken to produce 1 complete wave</b>	

**Transverse and Longitudinal waves**

**Waves in air, fluids and solids**

**AQA Waves**

**Electromagnetic waves**



**Measuring speed**

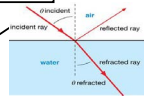
- In water, use a ripple tank.
- In air, use echoes.

**Properties**

Air Water

Sound waves travelling through different mediums, the frequency stay constant.

Angle of incidence = angle of reflection (i) = (r)



Reflection	Wave bounces off the surface.
Refraction	Waves changes direction at boundary.
Transmitted	Passes through the object.
Absorbed	Passes into but not out of, transfers energy and heats up the object.

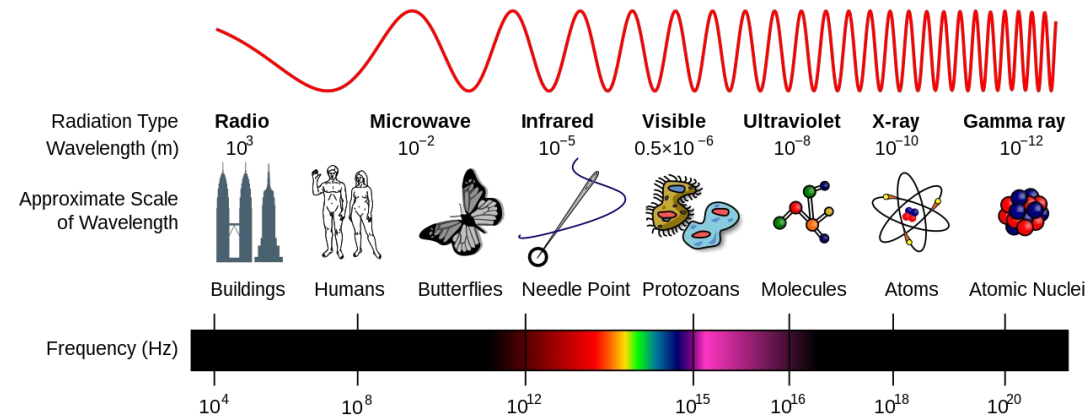
Light refracts as it slows down in a denser substance

Electromagnetic wave **Continuous spectrum of transverse waves**

Absorbed light changes into thermal energy store.

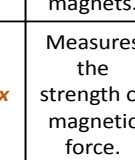
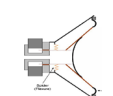
**HIGHER: Properties**

EM wave	Danger	Use
Radio	Safe.	Communications, TV, radio.
Microwave	Burning if concentrated.	Mobile phones, cooking, satellites.
Infrared		Heating, remote controls, cooking.
Visible	Damage to eyes.	Illumination, photography, fibre optics.
Ultra violet	Sunburn, cancer.	Security marking, disinfecting water.
X-ray	Cell destruction, mutation, cancer.	Broken bones, airport security.
Gamma		Sterilising, detecting and killing cancer.



**PHYSICS**





**Relay**  
A device using a small current to control a larger current in another circuit.  
Solenoid is wound around an iron core. Small current magnetises the solenoid. This attracts to electrical contacts, making a complete circuit. Current flows from battery to starter motor.

**Split-ring commutator**  
Split ring touching two carbon brush contacts.

**Loud speakers**  
Converts variations in electrical current into sound waves.  
Varying current flows through a coil that is in a magnetic field. A force on the wire moves backwards and forwards as current varies. Coil connected to a diaphragm. Diaphragm movements produce sound waves.

**Microphones**  
Converts pressure variations in sound waves into variations in current in electrical circuits.

**Electro magnet**  
Lots of turns of wire increase the magnetising effect when current flows.  
Turn current off, magnetism lost.

**Increase strength of magnetic field**  
Use larger current  
Use more turns of wire  
Put turns of wire closer together  
Use iron core in middle

**Generators**  
Coil of wire rotating inside a magnetic field. The end of the coil is connected to slip rings.  
Produces altering current.

**Electric motor**  
Coil of wire rotates about an axle.  
Current flows through the wire causing a downward movement on one side and an upward movement on the other side.

**Fleming's left-hand rule**  
To predict the direction a straight conductor moves in a magnetic field.

Thumb	Direction of movement.
First finger	Direction of magnetic field.
Second finger	Direction of current.

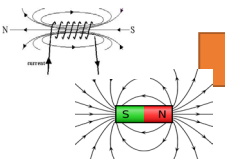
Reverse current, magnetic field direction reverses.

Further away from the wire, magnetic field is weaker.

Current large enough, iron filings show circular magnetic field.

If current is small, magnetic field is very weak.

Electric current flowing in a wire produces a magnetic field around it.



Magnetic field around a wire

**Motor effect**  
**HIGHER only**  
**AQA MAGNETISM AND ELECTROMAGNETISM**

Magnetic fields from the permanent magnet and current in the foil interact. This is called the motor effect.

$F = B \times I \times l$   
Force = magnetic flux density X current X length

If current and magnetic field are parallel to each other, no force on wire.

Reverse the current, foil moves upwards.

Aluminium foil placed between two poles of a strong magnet, will move downwards when current flows through the foil.

Size of force acting on foil depends on magnetic flux density between poles, size of current, length of foil between poles.

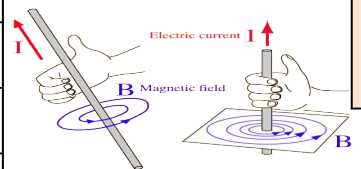
Magnetic flux	Lines drawn to show magnetic field	Lots of lines = stronger magnets.
Magnetic flux density	Number of lines of magnetic flux in a given area	Measures the strength of magnetic force.

**Permanent and Induced Magnetism**

**Magnets**

Magnetic	Materials attracted by magnets	Uses non-contact force to attract magnetic materials.
North seeking pole	End of magnet pointing north	Compass needle is a bar magnet and points north.
South seeking pole	End of magnet pointing south	Like poles (N – N) repel, unlike poles (N – S) attract.
Magnetic field	Region of force around magnet	Strong field, force big. Weak field, force small. Field is strongest at the poles.
Permanent	A magnet that produces its own magnetic field	Will repel or attract other magnets and magnetic materials.
Induced	A temporary magnet	Becomes magnetic when placed in a magnetic field.

**Right hand hand rule**



Thumb	Direction of current.
Fingers	Direction of magnetic field.

**Solenoid**  
A long coil of wire  
Magnetic field from each loop adds to the next.

PHYSICS

Matters of Life and Death – Christianity

RE

Topic	Christian Arguments	Arguments Against Christianity
<b>Origins of the universe</b>	<ul style="list-style-type: none"> <li>● Creationist Christians believe the world was created in 6 days by God</li> <li>● Liberal Christians believe that God started the Big Bang</li> <li>● They both believe the world is precious and made by God so we should look after it</li> </ul>	<ul style="list-style-type: none"> <li>● Scientists believe in the Big Bang Theory</li> <li>● The world was created 14 Billion years ago</li> <li>● Scientific evidence and fossils back this up</li> </ul>
<b>Origins of Human Life</b>	<ul style="list-style-type: none"> <li>● Humans were created by God</li> <li>● All life is precious – The Sanctity of life</li> <li>● Creationist Christians believe God made us in his image</li> <li>● Liberal Christians believe God formed us through evolution</li> <li>● The Church General Synod have accepted evolution</li> </ul>	<ul style="list-style-type: none"> <li>● Humans were created by evolution</li> <li>● Natural selection and survival of the fittest have shaped how we are today</li> <li>● There is no God – it is just down to nature</li> </ul>
<b>Abortion</b>	<ul style="list-style-type: none"> <li>● Pro-Life – The foetus has the right to life</li> <li>● Life begins at conception</li> <li>● God made every human unique and we should not take life</li> <li>● Abortion is murder – against 10 Commandments</li> <li>● Liberal Christians – treat others with kindness and love – should let abortion happen</li> </ul>	<ul style="list-style-type: none"> <li>● Pro-Choice – The mother should have a choice if to have an abortion</li> <li>● If the child is severely disabled abortion is best for everyone</li> <li>● Humanism – Quality of life is important for both mother and baby</li> <li>● Situation Ethics – Should always do the most loving thing so sometimes abortion is right</li> </ul>
<b>Euthanasia</b>	<ul style="list-style-type: none"> <li>● God made every human unique and we should not take life</li> <li>● Only God can decide when we die</li> <li>● God has a plan for everyone</li> <li>● Euthanasia is murder – against 10 Commandments</li> <li>● Liberal Christians – treat others with kindness and love – should let euthanasia happen</li> </ul>	<ul style="list-style-type: none"> <li>● We shouldn't let humans suffer</li> <li>● Humanism – Quality of life is important</li> <li>● Situation Ethics – Should always do the most loving thing so sometimes euthanasia is right</li> <li>● The Hospice Movement – Should support people in their death and be treated with dignity</li> </ul>
<b>Life After Death</b>	<ul style="list-style-type: none"> <li>● There is an afterlife with God – heaven or hell</li> <li>● God will judge our lives and decide where we go</li> <li>● The Resurrection of Jesus shows we will live on after death</li> <li>● Other Arguments for LAD: Remembered Lives, Paranormal, Logic, Reward, Comfort, Meeting loved ones</li> </ul>	<ul style="list-style-type: none"> <li>● Humanism – Reject LAD – we only get one life</li> <li>● Richard Dawkins – Atheist – rejects LAD</li> <li>● Story made up to comfort people</li> <li>● No Evidence</li> <li>● Social Control</li> </ul>
<b>Issues in the Natural World</b>	<ul style="list-style-type: none"> <li>● Christians are concerned about the issues faced by the natural world: Pollution, Global Warming, Deforestation, Abuse of Animals etc</li> <li>● There are 3 different Christian approaches to these issues: Dominion, Stewardship, Utilitarianism</li> <li>● The Christian Declaration of Nature says that Christians should respect the environment and care for it</li> <li>● Many Christians believe animals should be treated with care and respect – BUT it is acceptable to use them for human benefit up to a point</li> <li>● Some Christians disagree and oppose to the use of animals for human benefit</li> </ul>	

Matters of Life and Death – Christianity

Key Quotes		Linked Topics
<i>'All things have been created through him and for him. He is before all things, and in him all things hold together'</i>		Origins of the Universe, Natural Issues
<i>'God made man in his own image'</i>		Origins of Human Life, Abortion, Euthanasia
<i>'The body is the temple of the holy spirit'</i>		Origins of Human Life, Abortion, Euthanasia
<i>'You knit me together in my mother's womb'</i>		Origins of Human Life, Abortion, Euthanasia
<i>'God formed man of the dust of the ground, and breathed into his nostrils the breath of life; and man became a living soul.'</i>		Origins of Human Life, Abortion, Euthanasia
<i>'Before I formed you in the womb I knew you'</i>		Origins of Human Life, Abortion, Euthanasia
<i>'Do to others as you would have them do to you'</i>		Origins of Human Life, Abortion, Euthanasia
<i>'Love thy neighbour'</i>		Origins of Human Life, Abortion, Euthanasia
<i>'A wise man proportions his belief to the evidence' – David Hume</i>		Origins of the Universe / Life, LAD
<i>'A delusion is something that people believe in spite of a total lack of evidence' - Richard Dawkins</i>		Origins of the Universe / Life, LAD
Key Words	Meaning	
The Big Bang Theory	The scientific theory that the world was created by a big bang 14 billion years ago	
Commodity	A useful or valuable thing which satisfies particular wants or needs	
Stewardship	Looking after something so it can be passed on to the next generation	
Sanctity of Life	The view that all life is holy and made by God	
Evolution	The process by which different species have developed from earlier forms	
Survival of the Fittest	The idea that members of a species that are best suited to an environment survive	
General Synod	The national group within the Church of England that debates current issues	
Abortion	Ending a pregnancy by deliberately removing a foetus by surgical or medical means	
Pro Life	Holding the belief that the mother should be able to choose where to have an abortion	
Pro Choice	Holding the belief that the foetus has the right to life	
Conception	The moment when the sperm fertilises the egg, creating an embryo that develops into a baby	
Situation Ethics	The belief that decisions should be made in a situation based on what is the most loving thing to do	
Humanism	The belief that there is not a God – but we should support and respect human beings	
Euthanasia	The deliberate ending of life of someone dying from a painful disease	
Voluntary Euthanasia	Ending a person's life when they have asked for it	
Non- Voluntary Euthanasia	Ending a person's life when they cannot ask but you believe it is what they would have wanted	
Assisted Suicide	When you help someone to end their own life via suicide	
Quality of Life	The belief that life has value depending on how much enjoyment and pleasure someone has	
The Hospice Movement	A place which provides care for people with serious illnesses	
Resurrection	Rising from the dead, like Jesus after the Crucifixion	
Spiritualist	Someone who believes the spirits of dead people can communicate with the living	
Utilitarianism	The belief that the right course of action is the one that will produce the greatest happiness for the greatest number	

RE



**Key introductory terms**

<b>Sociology</b>	The study of society. Sociologists look at a range of factors in someone's social world.
<b>Society</b>	A social grouping that shares the same geographical territory and has the same political authority and expectations.
<b>Culture</b>	The whole way of life of a group of people in society e.g. clothes, food, music.
<b>Norms</b>	These define appropriate and expected behaviour in different certain settings e.g. classroom, cinema, restaurant.
<b>Values</b>	Ideas and beliefs that people have about what is desirable and worth striving for e.g. privacy & respect
<b>Socialisation</b>	Learning the norms and values of your culture and society.
<b>Primary socialisation</b>	This takes place in early childhood and is where we learn basic behaviours and skills we need. Family are responsible.
<b>Secondary socialisation</b>	This takes place in later childhood and beyond, learn norms, values and culture. Agencies include education and media.
<b>Nature</b>	The idea that behaviour and characteristics are innate (we are born with them) and due to biology.
<b>Nurture</b>	The idea that behaviour and characteristics are learnt from our environment (sociologists believe this)
<b>Social structures</b>	These form society's framework and set limits and guide behaviour e.g. family, class.
<b>Social processes</b>	The ways that humans are affected by their interactions with others in society e.g. racism.
<b>Social issues</b>	These form society's framework and set limits and guide behaviour e.g. family, class.
<b>Status</b>	A person's social standing or position in society. This can be affected by gender, age, class etc.

**Functionalist approach**

**Key sociologist: Durkheim**  
 \*Society is positive and is in harmony  
 \*There is value consensus – everyone agrees on what is important  
 \*Society is like a human body, we need all parts of it to be able to function  
 \*Agencies such as family, education and crime all help to keep society running smoothly and these are positive  
 \*No group in society has more power than another group  
 But... Functionalists are accused of viewing society too positively.

**Marxist approach**

**Key sociologist: Karl Marx**  
 \*Society is negative and is based on conflict  
 \*Capitalism creates a divide between two social classes  
 \*The ruling class (bourgeoisie) own the businesses and exploit the working class (proletariat) for profit  
 \*Family, education, crime etc. all work to keep the class divide and benefit the ruling class  
 \*The working class do not realise they are being exploited  
 \*The only way to overcome this inequality is a revolution (and society becoming communist)

**Feminist approach**

\*Society is negative and is based on conflict  
 \*Society is divided by gender and is based on patriarchy (male domination and power)  
 \*Men have power and dominance in society and women are oppressed  
 \*Family, education, crime etc. all work to keep the gender divide and exploit women  
 \*For example, women may be victims of domestic abuse and may be taught gender roles that limit their opportunities in society

**Weber's approach**

\*People's ideas, values and skills have more of an influence on their position in society than class and money  
 \*Status (someone's social position) is not always linked to their class/money  
 \*E.g. some people have high status but do not have a lot of money (junior doctors) whereas some people may have low status but lots of money (lottery winners)

**Interactionist approach**

\*Society does not influence everyone in the same way  
 \*Everyone's experiences are different, you can't generalise about behaviour  
 \*People can be labelled as something (e.g. clever, naughty) which can affect how they see themselves  
 \*People might accept and live up to the label through a self-fulfilling prophecy

**New Right approach**

\*Society should be based on traditional values such as marriage  
 \*People should not be reliant on welfare benefits as this can create an underclass  
 \*Nuclear families are the best type (with a married mum and dad) and lone-parent families can cause issues

**Consensus vs. conflict theories**

**Consensus theories**  
 \*These theories believe society is based on consensus (agreement) and is in harmony  
 \*Everyone shares the same norms and values and no one group has more power than another  
 \*E.g. functionalism  
**Conflict theories**  
 \*These theories believe society is based on conflict (disagreement) and is divided  
 \*People in society have different norms/beliefs/values  
 \*Some groups have more power than others  
 \*E.g. feminism, Marxism



Key methods terms

<b>Aim</b>	A general statement about what a sociologist expects to find out in research
<b>Hypothesis</b>	A prediction about what the sociologist expects they will find in research
<b>Pilot study</b>	A small test-run of a study which is carried out before the main study to check for any problems (e.g. equipment)
<b>Sampling</b>	How participants are chosen to take part in a study (e.g. volunteer, opportunity)
<b>Primary data</b>	Data which is collected first hand by the researchers (e.g. using a questionnaire or interview)
<b>Secondary data</b>	Data that already exists and is used by the researcher (e.g. official statistics, letters)
<b>Quantitative data</b>	Data which IS in the form of numbers
<b>Qualitative data</b>	Data which is NOT in the form of numbers and tends to be visual or in letters (e.g. diaries, photographs)
<b>Validity</b>	The accuracy of the findings – how truthful the data is.
<b>Reliability</b>	How consistent the findings are. If we repeated the study, would we find the same results?

Sampling methods

**Random** – all participants have an equal chance of being chosen (e.g. names out of hat)  
 ✓ Less biased and likely to be more representative  
 ✗ May not be fully representative – could choose all males  
**Volunteer** – participants choose/self-select to take part (e.g. responding to an advert)  
 ✓ Easy to gain a sample, less likely to drop out  
 ✗ May not be representative – only certain people will agree  
**Opportunity** – participants who are available are chosen  
 ✓ Easy to gain a sample ✗ may not be representative  
**Stratified** – participants chosen according to % in the population  
 ✓ Most representative ✗ difficult for the researcher to do

Primary research methods

Method	Advantages	Disadvantages
<b>Questionnaires</b>	✓ Participants are likely to be honest as anonymous ✓ Can be given to a large sample so more representative	✗ Participants may not understand the questions ✗ May not be honest as want to appear desirable
<b>Structured interviews (set questions)</b>	✓ Can compare responses easily between participants ✓ Less likely to be biased as set questions	✗ May not get full detail or gain a deep understanding ✗ Cannot ask additional questions
<b>Unstructured interviews (no set questions)</b>	✓ Can get full detail and a deep understanding ✓ You can build rapport/relationship so may be more honest	✗ May not get full detail or gain a deep understanding ✗ Cannot ask additional questions
<b>Group interviews</b>	✓ Can gain a variety of opinions ✓ May be more honest as have group support	✗ Some participants might take over the interview ✗ Participants might be embarrassed to be honest
<b>Participant observation (researcher joins group)</b>	✓ May understand behaviour more as joining in ✓ Can ask questions to help with research	✗ Could be biased as too involved ✗ Difficult to note behaviour so may not be accurate
<b>Non-participant observation (watches from a distance)</b>	✓ Less likely to be biased as not involved ✓ Easier to note behaviour so more likely to be accurate	✗ May not get full understanding of behaviour as not involved in the group
<b>Longitudinal study (follows a group over time)</b>	✓ Can look at the influence of different factors over time ✓ Can gain detailed information of the group you study	✗ Participants may drop out of the study ✗ Sample is likely to be small so not representative

Secondary sources of data

Method	Advantages	Disadvantages
<b>Official statistics (quantitative)</b>	✓ Often large sample sizes – more representative ✓ Easy to analyse and compare over time as quantitative ✓ Likely to be accurate as collected by the government	✗ May not give reasons for behaviour (just trends) ✗ May not include all behaviours e.g. crime statistics may ignore the dark figure
<b>Documents (qualitative) e.g. letters, diaries, school reports</b>	✓ Lots of detailed data as qualitative ✓ Can find reasons behind behaviour	✗ May be small sample sizes and not representative ✗ May be time-consuming to analyse ✗ Could be biased and not valid

Triangulation and mixed methods

Where a sociologist uses more than one method to find out lots of information about a topic e.g. using a questionnaire, interview and observation.  
 Is used to:  
 Gain more data on a topic  
 Check the validity/accuracy of the data  
 ✗ But, the data may be difficult compare as it is collected using different methods.



Key terms

**Agencies of social control** - The groups in society who control and regulate our behaviour  
**Anomie** - A sense of normlessness where people feel like there are no strict rules (a cause of crime)  
**Chivalry thesis** - The criminal justice system (police, courts) are less harsh on women as they are less likely to be seen as 'bad'  
**Corporate crime** - Crime committed by businesses with the aim of making profit for that business  
**Crime** - An illegal act which is punishable by law  
**Criminal justice system** - The system of police/ courts /prisons to manage offenders and reduce re-offending  
**Dark figure of crime** - All crimes that are not witnessed, reported or recorded by police  
**Deviance** - An act which goes against societies norms but may not be illegal  
**Deviancy amplification** - The process whereby the mass media can exaggerate the significance of a crime or deviance in society  
**Formal social control** - Where behaviour is controlled by official agencies associated with the government  
**Informal social control** - Where our behaviour is controlled by social pressure/agencies such as family  
**Institutional racism** - Where an organisation e.g. police shows racism and discrimination overtly or covertly  
**Relative deprivation** - Where an individual feels as though they are lacking the things that individuals who are similar to them have  
**Sanctions** - The consequences of behaviour which are given by society  
**Self-report studies** - Where individuals report crimes that they have committed themselves in a survey  
**Status frustration** - Where working class males are disappointed with their position in society and cannot achieve well due to education  
**Strain theory** - Where individuals do not have the legitimate means to achieve the goals of society  
**Subculture** - A group of individuals whose norms and values are different from mainstream society  
**Victim survey** - Individuals complete a questionnaire to report crimes that they have been victims of  
**White collar crime** - Crime committed by middle class professionals

Definitions of crime and deviance

Crime - an illegal act which is punishable by law e.g. theft, murder	Deviance - n act which goes against societies norms but may not be illegal e.g. face tattoos
<b>Why is crime and deviance difficult to define?</b>	
It varies by place – where the act takes place could mean it's seen as criminal	It varies by time – what is seen as criminal before may not be criminal now
	It varies by culture – what is deviant in one culture may not be in another

Statistics on crime and deviance

<b>Police recorded crime</b>	All crimes recorded by the police. <b>Advantage</b> – Large scale data, can compare trends over time and between different places <b>Disadvantage</b> – Does not include the dark figure of crime, crimes may not be witnessed (e.g. drug taking, domestic violence), reported (due to fear) or recorded by the police (seen as trivial or time wasting) Only 60% of crimes are reported, only 40% of then recorded
<b>Victim surveys</b>	Crime survey for England and Wales (CSEW) - These surveys question people about their experiences of being victims of crime in the past 12 month <b>Advantage</b> – Can uncover crimes not reported/recorded by the police, can look at trends in who is likely to be a victim <b>Disadvantage</b> – People may not be honest due to fear or may over exaggerate crimes, people may not realise they have been a victim of crime so don't report
<b>Self-report surveys</b>	These surveys question ask people to report any crimes that they have committed themselves in the past 12 months <b>Advantage</b> - Can uncover crimes not reported/recorded by the police, can look at trends in who is likely to be a criminal <b>Disadvantage</b> - People may not be honest due to fear or may over exaggerate crimes – means statistics might not be accurate

Social control

Formal social control	Informal social control
Agencies associated with the government which enforce formal rules/written laws Examples: The police, courts, prison service, probation Sanctions can include fines, imprisonment	Agencies which enforce informal rules/norms/unwritten rules in society Examples: Family, peers, religion, media Sanctions can include social pressure, approval, disapproval, grounding etc.
Functionalists view social control positively as it maintains social order/cohesion Marxists view it negatively as it is used by the ruling class to control the working class Feminists view it negatively as it is used by men to control women	

Functionalist theories

Crime is inevitable and universal. It occurs when individuals can't achieve the goals of society.  
**Durkheim** – Crime can be positive for society through – 1) Boundary maintenance 2) Changing society 3) Acts as a warning device 4) Provides jobs  
**Merton** – Crime occurs due to strain – people cannot legally achieve the goals of society due to poor education/opportunities. 5 reactions – conformity, innovation, retreatism, rebellion and ritualism.

Marxist theories

Crime is negative and helps to maintain capitalism/keep the class divide. The ruling class create laws which benefit them and scapegoat the working class  
 The working classes are targeted by police and so are more likely to appear in crime statistics.  
 Middle class/white collar crime less likely to be detected.

Feminist theories

Crime is negative and helps to maintain patriarchy in society. Crimes such as domestic violence and sexual crimes are not taken seriously and female victims are not supported.  
 Female criminals are seen as 'double deviants' as they go against the law and expectations.

Interactionist theories

An act is only seen as criminal/deviant if it is labelled as such by society. Labelling can lead to a self-fulfilling prophecy and criminal becoming a master status.  
 Individuals can spiral into a 'deviant' career and join deviant/criminal subcultures (Becker)

Subcultural theories

Criminal subcultures involve young males, show behaviour which goes against society's norms and are likely to show anti-social acts.  
 Cohen – working class boys experience status frustration and join delinquent subcultures to gain status/fight back against society



**Key studies**

<p><b>Merton (functionalist)</b></p> <p>Merton argued that all members of society hold the same values. However, Merton believed that they did not have the same opportunity to realise their shared goals. Strain theory says crime occurs when individuals cannot legally achieve the goals of society. There are 5 reactions to strain, not all are criminal – conformity, innovation, ritualism, retreatism and rebellion.</p>
<p><b>Cohen (functionalist)</b></p> <p>Cohen argues that working class boys hold the same goals as the rest of society, but that because of educational failure and poor employment prospects, they have little or no opportunity to realise those goals. They experience status frustration and join delinquent subcultures where they show vandalism, graffiti, joyriding etc. to gain status in their group.</p>
<p><b>Becker (interactionist)</b></p> <p>An act only becomes seen as criminal/deviant when it is labelled as such. An individual could accept the label through a self-fulfilling prophecy which becomes their master status (what they see as their most important characteristic). They could spiral into a deviant career by joining a criminal or deviant subculture and commit further acts.</p>
<p><b>Carlen (feminist)</b></p> <p>Used unstructured interviews with 39 working class women to understand reasons for crime. They turned to crime because they had less to lose and couldn't conform to the gender deal or the class deal. For example, they were less likely to have stable and happy relationships or well-paid jobs – they were more likely to turn to crime as they had less to lose.</p>
<p><b>Heidensohn (feminist)</b></p> <p>She uses control theory to explain how patriarchy in society means women commit less crime. Women are controlled at home (by husbands), at work (by male bosses) and in public (by the threat or fear of male violence). Girls develop a bedroom culture. They have less opportunity for crime due to more controls being put over their behaviour.</p>

**Social class and crime**

<p><b>Trends</b> – Working class are more likely to be convicted offenders / in prison</p>	
<p><b>Reasons</b></p>	<p>Material and relative deprivation, Inadequate socialisation, Poorer education (strain theory), Status frustration (Cohen)</p>
<p><b>Why might statistics not be accurate?</b></p>	<p>Bias within the criminal justice system – working class crimes (blue collar) are targeted more by police than middle class (white collar)                  White collar crimes (e.g. fraud, tax evasion) are less likely to be detected – they take place in private, may not have a direct victim and are not policed                  Corporate crimes (e.g. horse meat scandal) are less likely to be detected – may not have a direct victim and can be covered up</p>

**Gender and crime**

<p><b>Trends</b> – 94% of the prison population are male, ¼ of convicted offenders are male</p>	
<p><b>Reasons</b></p>	<p>Gender socialisation (men are socialised to be tough, risk taking)                  Lack of male role models in society                  More opportunity for crime / subcultures</p>
<p><b>Why might statistics not be accurate?</b></p>	<p>Chivalry thesis – women may be treated more leniently in the CJS, seen as 'sad not bad' so don't appear in statistics                  Female crime is increasing – women are committing more crime than before                  Ladette subcultures – women committing typically 'male crime'                  Carlen – working class women have less to lose by committing crime</p>

**Ethnicity and crime**

<p><b>Trends</b> – 13% of the prison population are black vs. 3% in the general population, 9x more likely to be stopped and searched</p>	
<p><b>Reasons</b></p>	<p>Higher chance of poverty/deprivation, poorer family backgrounds (more lone-parent), more chance of joining criminal subcultures</p>
<p><b>Why might statistics not be accurate?</b></p>	<p>Institutional racism / Macpherson Report – police/courts are more likely to target BAME individuals                  Stop and searches – 9X more likely for black individuals, 3x more likely to be arrested – more likely to appear in crime statistic                  Chief of Met policed voiced it is still racist, some forces have no BAME officers                  But... anti-racism training, increased recruitment of BAME officers</p>

**Age and crime**

<p><b>Trend</b> – 15-24 year olds most likely to appear in crime statistics</p>	
<p><b>Reasons:</b> Socialisation, opportunity, subcultures, media</p>	
<p>But... The police might target young people, crimes may be easier to detect</p>	

**Treatment of young offenders**

<p>Sanctions available for young offenders: fines, referral orders, community sentences, CBOs, custody</p>	
<p><b>Should young offenders be sent to prison/custody?</b></p>	
<p><b>Yes</b></p> <p>Protects the public, can access rehabilitation programmes, can act as a deterrent</p>	<p><b>No</b></p> <p>Prisons may act as universities of crime, 73% reoffend, may join prison gangs</p>

**Prison as a punishment**

<p><b>Is prison the best form of punishment?</b></p>	
<p><b>Yes</b></p> <p>Functionalists – can rehabilitate offenders, act as a deterrent</p>	<p><b>No</b></p> <p>Universities of crime, 45% reoffend, not suitable for those with disabilities/mental health issues</p>

**Violent crime**

<p><b>Is violent crime an issue in society?</b></p>	
<p><b>Yes</b></p> <p>Statistics may not show true extent of violent crime                  Gun crime/knife crime are increasing                  Influence of the media in promoting violence</p>	<p><b>No</b></p> <p>Some statistics suggest violent crime has decreased since the 1990s                  Anti-violence and anti-gang education introduced into schools</p>

**The media and crime**

<p><b>Does the media show crime accurately?</b></p>	
<p><b>Yes</b></p> <p>Functionalist view – the media shows a range of views, pluralism, no one group dominates</p>	<p><b>No</b></p> <p>Marxists – conflict view, agenda setting, media owned by ruling class, scapegoats working class, Exaggerates violent/sexual crimes</p>
<p><b>How can the media encourage crime?</b></p> <p>Copycat crimes e.g. Daniel Bartlam, violence                  Deviancy amplification – the media creates moral panics, labelling and a self-fulfilling prophecy e.g. mods&amp;rockers                  But... other factors may affect criminal behaviour</p>	



### Key terms

**Absolute poverty** - Not being able to afford the basic things you need to survive in life e.g. food, clothing,  
**Achieved status** - Social positions are earned through personal talent, merit and effort, not fixed at birth  
**Ascribed status** - Social positions/status are fixed at birth (due to class) and do not change over time  
**Bourgeoisie** - The ruling class who owned the means of production and exploited the working class  
**Culture of dependency** - The welfare system encourages people to stay on benefits rather than support themselves through work  
**Glass ceiling** - An invisible barrier in employment that prevents some groups such as women or ethnic minorities from gaining promotions  
**Life chances** - The opportunity/chance of achieving positive or negative outcomes (e.g. healthy/ill, rich/poor) as you progress throughout life  
**Power** - The ability to get what you want, despite opposition  
**Pressure group** - A group formed to influence government policy on a particular issue  
**Relative poverty** - Not being able to afford to meet the general standard of living compared to most other people in their society  
**Social exclusion** - The inability of some groups in society (e.g. the elderly, the working class) to play a full part in society/access the full benefits  
**Social inequality** - The uneven distribution of resources (e.g. money or power) and opportunities  
**Social mobility** - The ability to move up the social ladder  
**Social stratification** - How society is structured in a hierarchy of layers based on factors such as age, gender  
**Status** - The social standing or prestige someone is given by other members of society.  
**Underclass** - A group in society who have different attitudes and values to others. They experience long-term unemployment, tend to be reliant on benefits  
**Wealth** - The ownership of assets (e.g. property, land, jewelry) and savings, shares etc.  
**Welfare dependency** - When individuals are reliant on the government for income for a prolonged period of time

### Theories of social stratification

**Functionalist** - Social stratification is positive for society. Society is based on meritocracy and status is 'achieved' through hard work and effort.  
 'Role allocation' - top roles are filled by those who are able, ambitious and competitive - allows society to run smoothly.  
**Marxists** Social stratification is negative for society. Society is based on conflict and status is 'ascribed' - is fixed at birth by class and cannot be changed.  
 Top roles are filled by the bourgeoisie and creates inequality.  
**Feminists** Social stratification is negative for society. Society is based on conflict and patriarchy with the top roles being filled by men and women being lower in the hierarchy.

### Social stratification and class

	Working class	Middle class	Upper
	Unskilled/manual work, lack of formal education	Professional jobs, formal education e.g. University	Aristocracy, elite education, 'titles' given
<b>How is class measured?</b>	NS-SEC: Measures class by occupation (job) X Ignores wealth/status as a measure of class		
<b>Does class affect life chances?</b>	<b>Yes</b> - Marxists - status is ascribed, working classes have poorer opportunities in education, employment, health, housing <b>No</b> - Functionalists - status is achieved, society is based on meritocracy - equal chances to succeed Feminists - gender has more of an influence on life chances than class		
<b>Do we still have different classes in society?</b>	<b>Yes</b> - Marxists - still a divide between the working and middle classes Life chances are still poorer for the working class, low social mobility Devine - there is still a separate working class <b>No</b> - Functionalists - meritocracy, more w/c going to university etc. Embourgeoisement - the w/c may be becoming more middle class Less people may be working class due to changes in occupation		

### Social stratification and gender

**Policies to reduce inequality** - Equal pay act (1970), Sex Discrimination Act (1975), Equality Act (2010)

<b>Does gender affect life chances?</b>	<b>Yes</b> - Feminists - women have poorer life chances due to patriarchy Women less likely to be CEOs, to be paid a high wage, face a glass ceiling, pay gap still exists <b>No</b> - Functionalists - society is based on meritocracy Improvements for women - more likely to attend University, pay gap has decreased, women have a higher life expectancy
<b>Reasons why</b>	Glass ceiling/patriarchy in the workplace Gender socialisation - women may take expressive role/lower paid careers

### Factors affecting life chances

<b>Life chances</b>	Life expectancy, income, wealth, employment, education, housing, health
<b>Class</b>	Education: W/C - poorer GCSE grades Income: W/C - earn less, minimum wage Housing: W/C - rented, poor quality Life expectancy: W/C - lower, poorer health
<b>Gender</b>	Education: Girls outperform boys Employment: Women lower paid, less income/wealth, less likely to be in top jobs Life expectancy: Women live longer
<b>Ethnicity</b>	Employment: 20% of black Caribbean men unemployed Employment: 4% of CEOs are BAME Education: Poorer GCSEs among some BAME groups and less likely to go to University
<b>Age</b>	Youth - lower income, higher unemployed Older age - more at risk of poverty, ageism in the workplace, poorer access to health services
<b>Other factors</b> - Disability, Sexuality, Religion/beliefs	

### Social stratification and ethnicity

**Policies to reduce inequality** - Race relations act (1976), Equality act (2010)

<b>Does ethnicity affect life chances?</b>	<b>Yes</b> - 4% of CEOs are BAME, some groups have lower life expectancy, glass ceiling/lower paid jobs, poorer GCSE grades <b>No</b> - Laws/policies have reduced inequality, some BAME groups more likely to go to University, differences among groups
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### Social mobility

Yes	No
More w/c go to University, achievement is increasing, functionalists- achieved status / meritocracy, statistics may not be accurate	UK - one of lowest rates of mobility, top jobs more likely to be privately educated, only 35% think they have a fair chance, Marxists - inequality due to capitalism



SOCIOLOGY

Paper 2 Social Stratification

Key studies
<p><b>Davis and Moore (functionalist)</b></p> <p>Society needs to place people into roles / social positions that need to be filled for society to operate smoothly. Some roles come with higher status (doctors, lawyers). People who fill the top roles are the most able, have the most drive/ambition and are the most competitive.</p>
<p><b>Marx (Marxist)</b></p> <p>Class is an important division, the bourgeoisie have power/control over the proletariat who are exploited for profit. The working class and petty bourgeoisie didn't benefit from the growth of capitalism. Small business couldn't compete and had 'downward social mobility'. The working class are not aware of their exploitation.</p>
<p><b>Devine</b></p> <p>Conducted interviews at a car factory in the 1980s. She found evidence of the working class still being separate and still had working class values. This goes against the idea of embourgeoisement.</p>
<p><b>Townsend</b></p> <p>Conducted surveys on 2000 households about poverty, used relative poverty index and found the government underestimated poverty (6% vs. 22%). Concluded that poverty should be measured using a number of factors.</p>
<p><b>Murray (New Right)</b></p> <p>There is a growing underclass in British society caused by overgenerous welfare benefits. Can be seen in three ways – welfare dependency, juvenile delinquency, loss of traditional values.</p>
<p><b>Weber</b></p> <p>Believed class is important but is not just tied to income/wealth, status and power can affect someone's position in society too. He thought capitalism actually expanded the middle class and a revolution by the working class is possible. Distinguished between three types of power in society – charismatic, traditional and rational legal.</p>
<p><b>Walby (Feminist)</b></p> <p>Men have more power in society due to patriarchy. This is shown in 6 ways – paid work/employment, labour in the home, patriarchal culture, sexuality, male violence and the state. Public patriarchy is now more likely to exist than private patriarchy.</p>

Poverty						
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La casa, vida sana y los problemas sociales y globales (THEME 2- Social and Global Issues) (FOUNDATION)

1.1 ¿Cómo es tu casa o tu piso? (How is your house/flat like?) [Quizlet 1.1](#)

<p><b>Vivo en una casa grande-</b> <i>I live in a big house</i></p> <p><b>Vivo en un piso -</b> <i>I live in a flat</i></p> <p><b>Mi familia y yo vivimos en una casa con jardín-</b> <i>my family and I live in a house with garden</i></p> <p><b>Mi hermano y yo vivimos en un apartamento</b> <i>My brother and I live in an apartment</i></p>	<p><b>Mi casa es...</b> <i>My house is</i></p> <p><b>Mi piso es...</b> <i>My flat is...</i></p> <p><b>Mi piso en el pasado era</b> <i>My flat in the past was</i></p> <hr/> <p><b>Mi casa/ piso tiene...</b> <i>My house/flat has...</i></p> <p><b>Antes, mi casa / piso tenía</b> <i>Before, my house /flat used to have</i></p>	<p><b>Moderna/o</b> (<i>modern</i>) - <b>Antiguo/a</b> (<i>old</i>)</p> <p><b>Grande (big)- pequeño/a</b> (<i>small</i>)</p> <p><b>cómodo/a</b> (<i>comfortable</i>)</p> <p><b>tradicional</b> (<i>traditional</i>)</p> <p><b>Está* sucia/o</b> (<i>it is dirty</i>)</p> <p><b>Está* limpia/o</b> (<i>it is clean</i>)</p> <hr/> <p><b>tres dormitorios</b> (<i>3 bedrooms</i>)</p> <p><b>dos baños</b> (<i>two bathrooms</i>)</p> <p><b>una cocina amplia</b> (<i>a spacious kitchen</i>)</p> <p><b>un comedor</b> (<i>a dining room</i>)</p> <p><b>un estudio</b>(<i>a study</i>)</p> <p><b>un salón</b>(<i>a living room</i>)</p> <p><b>un aseo</b> (<i>a toilet</i>)</p> <p><b>un jardín</b> (<i>a garden</i>)</p> <p><b>un sótano</b> (<i>a basement / cellar</i>)</p>	<p><b>En la cocina hay...</b> - <i>In the kitchen there is / there are ...</i></p> <p><b>un fregadero</b> - <i>kitchen sink</i></p> <p><b>un lavaplatos / lavavajillas-</b> <i>dishwasher</i></p> <p><b>un microondas-</b> <i>microwave</i></p> <p><b>En el salón hay...</b> - <i>In the living room there is / there are ...</i></p> <p><b>una alfombra-</b> <i>a carpet</i></p> <p><b>un sofá-</b> <i>a sofa</i></p> <p><b>una mesa y sillas -</b> <i>a table and chairs</i></p> <p><b>unas plantas-</b> <i>some plants</i></p> <p><b>En el baño hay...</b> - <i>In the toilet there is / there are ...</i></p> <p><b>un lavabo-</b> <i>a sink/washbasin/ una ducha-</i> <i>a shower</i></p> <p><b>una bañera-</b> <i>a bath/ un espejo-</i> <i>a mirror</i></p> <p><b>En el dormitorio hay...</b> - <i>In the bedroom there is / there are ...</i></p> <p><b>una cama-</b> <i>a bed/ unas cortinas-</i> <i>some curtains</i></p> <p><b>armarios-</b> <i>wardrobes/ estantes-</i> <i>shelves</i></p>	<p><b>Además, está situado/a en el centro/este/norte/oeste</b> <i>In addition, it is located in the centre/east/north/west</i></p> <p><b>Por otro lado, hay muchos bosques</b> <i>On the other hand, there are many woods</i></p> <p><b>Pero antes estaba entre el desierto y la sierra</b> <i>But before it used to be between the desert and the mountain range</i></p>
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Grammar Non-Negotiables: Key verbs in different tenses [Quizlet](#)

DPR9: Imperfect	DPR9: Preterite	DPR8: Present	DPR11: Conditional
<p><b>había</b> = there used to be</p> <p><b>teníamos</b> = we used to have</p> <p><b>era</b> = it used to be</p> <p><b>(no) se podía</b> = you could (not)</p> <p><b>la gente pensaba que</b> = people used to think that</p> <p><b>estaba en=</b> it used to be in (location)</p> <p><b>tenía=</b> it used to have</p> <p><b>visitaba=</b> I/he/she used to visit</p>	<p><b>Fui a</b> = I went to</p> <p><b>tuve la oportunidad de</b> = I had the opportunity to</p> <p><b>fuimos a</b> = we went to</p> <p><b>visité</b> = I visited</p> <p><b>visitamos</b> = we visited</p> <p><b>mi hermano fue a=</b> my brother went to</p> <p><b>Mi hermana pensó que</b> = my sister thought that...</p>	<p><b>hay</b> = there is/are</p> <p><b>tiene</b> = it has</p> <p><b>tenemos</b> = we have</p> <p><b>tenemos que</b> = we have to</p> <p><b>se puede</b> = you can</p> <p><b>vamos=</b> we go</p> <p><b>voy=</b> I go</p> <p><b>Suelo ir=</b> I usually go</p> <p><b>Solemos ir=</b> we usually go</p>	<p><b>me gustaría visitar</b> = I'd like to visit</p> <p><b>invertiría dinero en</b> = I'd invest money in</p> <p><b>nos permitiría</b> = it'd allow us to</p> <p><b>deberíamos</b> = we should</p> <p><b>visitaría</b> = I would visit</p> <p><b>Iría</b> = I would go</p> <p><b>Visitaríamos</b> = we would visit</p> <p><b>Iríamos</b> = we would go</p>

La casa, vida sana y los problemas sociales y globales (THEME 2- Social and Global Issues) (FOUNDATION)

1.2 ¿Llevas una vida sana? (Do you have a healthy lifestyle?) [Quizlet list 1.2.](#)

<p><b>Normalmente (no) llevo</b> <i>Normally I (don't) have</i></p>	<p><b>Una vida sana ya que...</b> <i>A healthy lifestyle because</i></p>	<p><u>Negative:</u>  <b>Drogarse</b> – take drugs  <b>Fumar</b> - smoking  <b>Emborracharse</b> – get drunk  <b>Comer comida basura / comida rápida-</b> eat junk food/ fast food  <b>Levantarse temprano</b> – to wake up early</p>	<p><u>Negative:</u>  <b>Es peligroso para mi salud-</b> <i>It is dangerous for your health</i>  <b>Ya que el alcohol/las drogas afecta(n) a tu salud</b>  <i>Because alcohol/drugs affect your health</i>  <b>Causa enfermedades como diabetes / cáncer / depresión</b> <i>It causes illnesses like diabetes/ cancer / depression</i></p>
<p><b>En el pasado (no) llevaba</b> <i>Normally I didn't have /had</i></p>	<p><b>Una vida sana ya que...</b> <i>A healthy lifestyle because</i></p>	<p><u>Positive:</u>  <b>Hacer ejercicio-</b> do exercise  <b>Evitar el estrés-</b> avoid stress  <b>Comer bien-</b> eat well  <b>Dormir ocho horas-</b> sleep 8 hours  <b>Acostarse tarde</b> – to go to bed late</p>	<p><u>Positive:</u>  <b>Tiene beneficios para el corazón / los pulmones-</b>  <i>It has benefits for the heart/ lungs</i>  <b>Te permite mejorar tu salud mental-</b> <i>It allows you to improve your mental health</i></p>

1.3 Describe los problemas medioambientales (Describe environmental problems) [Quizlet list 1.3](#)

<p><b>Me preocupa(n)</b> <i>I'm worried</i></p> <p><b>Me molesta(n)</b> <i>I'm annoyed by</i></p> <p><b>Lo que más me preocupa(n) es</b> <i>The thing that worries me the most is</i></p> <p><b>Lo que más me molesta(n) es</b> <i>The thing that annoys me the most is</i></p> <p><b>El problema medioambiental más serio es</b> <i>The most serious environmental problem is</i></p>	<p><b>la contaminación del aire-</b> air pollution</p> <p><b>la contaminación acústica-</b> noise pollution</p> <p><b>la deforestación-</b> deforestation</p> <p><b>la falta de transporte público-</b> the lack of public transport</p> <p><b>el malgasto de energía/agua-</b> the waste of energy/water</p>	<p><b>Ya que</b></p> <p><b>Puesto que</b></p> <p><b>Dado que</b></p> <p><b>Porque</b></p>	<p><b>Causa</b> <i>it causes</i></p>	<p><b>El cambio climático-</b> climate change  <b>Huracanes-</b> hurricanes  <b>El calentamiento global-</b> global warming  <b>Contaminación atmosférica-</b> atmospheric pollution  <b>Enfermedades pulmonares-</b> lungs illnesses</p>
			<p><b>Afecta a</b> <i>it affects</i></p>	<p><b>La flora y la fauna -</b> nature/ plants and trees  <b>La vida marina-</b>marine life  <b>Las playas-</b> beaches  <b>La naturaleza-</b> nature</p>

La casa, vida sana y los problemas sociales y globales (THEME 2- Social and Global Issues) (FOUNDATION)

1.4 ¿Qué opinas de la pobreza y los sin techo? (What do you think about poverty and homeless people?) [Quizlet list 1.4](#)

<p><b>Me preocupa</b> <i>It worries me</i></p> <p><b>Me molesta</b> <i>It annoys me</i></p>	<p><b>El paro-</b> <i>unemployment</i></p> <p><b>El hambre-</b> <i>hunger</i></p> <p><b>La diferencia entre los ricos y los pobres-</b> <i>the difference between rich and poor</i></p> <p><b>La criminalidad-</b> <i>crime</i></p> <p><b>La pobreza-</b> <i>so much poverty</i></p> <p><b>Los sin techo-</b> <i>homeless people</i></p>	<p><b>Se necesita(n) más</b></p> <p><i>We need more</i></p>	<p><b>Oportunidades de trabajo-</b> <i>job opportunities</i></p> <p><b>Bancos de alimentos-</b> <i>food banks</i></p> <p><b>Viviendas nuevas-</b> <i>new houses</i></p> <p><b>Ayudas económicas-</b> <i>financial support</i></p>
<p><b>Sin embargo, en el pasado me preocupaba más-</b></p> <p><i>However, in the past, I was more worried about</i></p>	<p><b>El paro-</b> <i>unemployment</i></p> <p><b>El hambre-</b> <i>hunger</i></p> <p><b>La diferencia entre los ricos y los pobres-</b> <i>the difference between rich and poor</i></p> <p><b>La criminalidad-</b> <i>crime</i></p> <p><b>La pobreza-</b> <i>so much poverty</i></p> <p><b>Los sin techo-</b> <i>homeless people</i></p>	<p><b>Pero a mi hermano le preocupaba</b></p> <p><i>But my brother was worried about...</i></p>	<p><b>El paro-</b> <i>unemployment</i></p> <p><b>El hambre-</b> <i>hunger</i></p> <p><b>La diferencia entre los ricos y los pobres-</b> <i>the difference between rich and poor</i></p> <p><b>La criminalidad-</b> <i>crime</i></p> <p><b>La pobreza-</b> <i>so much poverty</i></p> <p><b>Los sin techo-</b> <i>homeless people</i></p>

1.5 ¿Te gustaría hacer un voluntariado? (Would you like to do voluntary work?) [Quizlet list 1.5](#)

<p><b>Si fuera posible...</b></p> <p><i>(If it were possible)</i></p>	<p><b>Me gustaría trabajar como voluntario/a en...</b></p> <p><i>(I would like to work as a volunteer in...)</i></p>	<p><b>Una tienda benéfica</b> <i>Charity shop</i></p> <p><b>Una residencia de ancianos</b> <i>Nursing home</i></p> <p><b>Un hogar de menores</b> <i>Children's home</i></p>	<p><b>Porque quiero..</b> <i>Because I want</i></p> <p><b>Ya que es importante...</b> <i>Because it is important...</i></p>	<p><b>Ayudar a la gente mayor</b> <i>Help the elderly</i></p> <p><b>Trabajar con niños necesitados</b> <i>Work with children in need</i></p> <p><b>Ayudar a los sin techo</b> <i>Help homeless people</i></p> <p><b>Apoyar a los demás</b> <i>Support others</i></p>
<p><b>Si tuviera la oportunidad...</b></p> <p><i>(If I had the chance)</i></p>	<p><b>Me gustaría ayudar en...</b></p> <p><i>(I would like to help in...)</i></p>	<p><b>Un banco de alimentos</b> <i>Food bank</i></p> <p><b>Un comedor social</b> <i>Soup kitchen</i></p>	<p><b>Puesto que es importante</b></p> <p><i>Because it is important</i></p> <p><b>Porque me permite ayudar a los demás</b> <i>Because it allows me to help others</i></p> <p><b>Ya que es importante apoyar a otras personas</b> <i>Because it is important to support other people</i></p>	<p><b>Ayudar a la gente</b> <i>Help people</i></p> <p><b>Proteger la naturaleza</b> <i>Protect nature</i></p>



La casa, vida sana y los problemas sociales y globales (THEME 2- Social and Global Issues) (HIGHER)

1.1 ¿Cómo es tu casa o tu piso? (How is your house/flat like?) [Quizlet 1.3](#)

<p><b>Vivo en una casa adosada-</b> <i>I live in a semi-detached house</i></p> <p><b>Vivo en un bloque de pisos</b> <i>-I live in a block of flats</i></p> <p><b>Mi familia y yo vivimos en un chalet</b> <i>- my family and I live in a detached house</i></p> <p><b>Mi hermano y yo vivimos en una granja</b> <i>- my brother and I live in a farm</i></p> <p><b>Mi hermana vive en una casa con jardín</b> <i>- my sister lives in a house with a garden</i></p> <p><b>Vivo de alquiler en un apartamento con mi hermano</b> <i>I live renting an apartment with my brother</i></p>	<p><b>Mi casa es...</b> <i>My house is</i></p> <p><b>Mi piso es...</b> <i>My flat is...</i></p> <p><b>Mi casa ideal sería</b> <i>My ideal house would be</i></p> <p><b>la casa de mis sueños sería-</b> <i>my dream house would be</i></p> <p><b>Mi piso en el pasado era</b> <i>My flat in the past was</i></p>	<p><b>Moderna/o</b> (<i>modern</i>) - <b>Antiguo/a</b> (<i>old</i>)</p> <p><b>Grande (big)- pequeño/a</b> (<i>small</i>)</p> <p><b>Enorme</b> (<i>huge</i>)/<b>Espaciosa/a</b> (<i>spacious</i>)</p> <p><b>amplia/o / espaciosa/o</b> (<i>spacious</i>)</p> <p><b>cómoda</b> (<i>comfortable</i>)</p> <p><b>tradicional</b> (<i>traditional</i>)</p> <p><b>Está* sucia/o</b> (<i>it is dirty</i>)</p> <p><b>Está* limpia/o</b> (<i>it is clean</i>)</p>	<p><b>En la cocina hay...</b> <i>- In the kitchen there is / there are...</i></p> <p><b>un fregadero</b> - <i>kitchen sink</i></p> <p><b>un lavaplatos / lavavajillas-</b> <i>dishwasher</i></p> <p><b>un microondas-</b> <i>microwave</i></p> <p><b>En el salón hay...</b> <i>- In the living room there is / there are...</i></p> <p><b>una alfombra-</b> <i>a carpet</i></p> <p><b>un sillón / un sofá-</b> <i>a sofa/couch</i></p> <p><b>una mesa y sillas -</b> <i>a table and chairs</i></p> <p><b>unas plantas-</b> <i>some plants</i></p> <p><b>En el baño hay...</b> <i>- In the toilet there is / there are...</i></p> <p><b>un lavabo-</b> <i>a sink/washbasin/ una ducha-</i> <i>a shower</i></p> <p><b>una bañera-</b> <i>a bath/ un espejo-</i> <i>a mirror</i></p> <p><b>En el dormitorio hay...</b> <i>- In the bedroom there is / there are...</i></p> <p><b>una cama-</b> <i>a bed/ unas cortinas-</i> <i>some curtains</i></p> <p><b>armarios-</b> <i>wardrobes/ estantes-</i> <i>shelves</i></p>	<p><b>Además, está situado/a en un valle</b> <i>In addition, it is located in a valley</i></p> <p><b>Por otro lado, está lleno/a de bosques / selvas</b> <i>On the other hand, it is full of woods / rainforests</i></p> <p><b>Además, estaría rodeado/a de volcanes / sierra</b> <i>In addition, it would be surrounded by volcanoes / mountains</i></p> <p><b>Por otro lado, estaría a ... metros sobre el nivel del mar</b> <i>On the other hand it would be ... metres above sea level</i></p> <p><b>Pero estaba entre el desierto y la sierra</b> <i>But it used to be between the desert and the mountain range</i></p> <p><b>Por otro lado, tiene unos impresionantes paisajes naturales</b> <i>On the other hand, it has some amazing natural landscapes</i></p>
	<p><b>Mi casa/ piso tiene...</b> <i>My house/flat has...</i></p> <p><b>Antes, mi casa / piso tenía</b> <i>Before, my house /flat used to have</i></p> <p><b>Mi casa ideal tendría</b> <i>My ideal house would have</i></p>	<p><b>tres dormitorios</b> (<i>3 bedrooms</i>)</p> <p><b>dos cuartos de baño</b> (<i>two bathrooms</i>)</p> <p><b>una cocina amplia y bien equipada</b> (<i>a spacious, well-equipped kitchen</i>)</p> <p><b>un comedor recién renovado</b> (<i>a recently refurbished dining room</i>)</p> <p><b>un estudio(a study)/un salón(a living room)</b></p> <p><b>un aseo (a toilet) / un jardín (a garden) un sótano</b> (<i>a basement / cellar</i>)</p>		

Grammar Non-Negotiables: Key verbs in different tenses [Quizlet](#)

DPR9: Imperfect	DPR9: Preterite	DPR8: Perfect	DPR8: Present	DPR11: Conditional
<p><b>había</b> = there used to be</p> <p><b>teníamos</b> = we used to have</p> <p><b>era</b> = it used to be</p> <p><b>(no) se podía</b> = you could (not)</p> <p><b>la gente pensaba que</b> = people used to think that</p> <p><b>estaba en=</b> it used to be in (location)</p> <p><b>tenía=</b> it used to have</p> <p><b>visitaba=</b> I/he/she used to visit</p>	<p><b>Fui a</b> = I went to</p> <p><b>tuve la oportunidad de</b> = I had the opportunity to</p> <p><b>fuimos a</b> = we went to</p> <p><b>visité</b> = I visited</p> <p><b>visitamos</b> = we visited</p> <p><b>mi hermano fue a=</b> my brother went to</p> <p><b>Mi hermana pensó que</b> = my sister thought that...</p>	<p><b>hemos invertido mucho dinero en</b> = we've invested lots of money in</p> <p><b>hemos tenido problemas con</b> = we've had problems with</p> <p><b>he notado cada vez más problemas con</b> = I've noticed more and more problems with</p> <p><b>he decidido=</b> I have decided</p> <p><b>Hemos decidido=</b> we have decided</p> <p><b>Ha decidido=</b> he/she has decided</p>	<p><b>hay</b> = there is/are</p> <p><b>tiene</b> = it has</p> <p><b>tenemos</b> = we have</p> <p><b>tenemos que</b> = we have to</p> <p><b>se puede</b> = you can</p> <p><b>vamos=</b> we go</p> <p><b>voy=</b> I go</p> <p><b>Suelo ir=</b> I usually go</p> <p><b>Solemos ir=</b> we usually go</p>	<p><b>me gustaría visitar</b> = I'd like to visit</p> <p><b>invertiría dinero en</b> = I'd invest money in</p> <p><b>nos permitiría</b> = it'd allow us to</p> <p><b>deberíamos</b> = we should</p> <p><b>visitaría</b> = I would visit</p> <p><b>Iría</b> = I would go</p> <p><b>Visitaríamos</b> = we would visit</p> <p><b>Iríamos</b> = we would go</p>

La casa, vida sana y los problemas sociales y globales (THEME 2- Social and Global Issues) (HIGHER)

1.2 ¿Llevas una vida sana? (Do you have a healthy lifestyle?) [Quizlet list 2.2.](#)

<p><b>Normalmente (no) llevo</b> <i>Normally I (don't) have</i></p>	<p><b>Una vida sana ya que...</b> <i>A healthy lifestyle because</i></p>	<p><u>Negative:</u> <b>Acostarse tarde</b>- go to sleep late <b>Drogarse</b> – take drugs <b>Fumar</b> - smoking <b>Emborracharse</b> – get drunk <b>Comer comida basura / comida rápida</b>- eat junk food/ fast food <b>Tomar bebidas azucaradas</b> – drink sugary drink</p>	<p><u>Negative:</u> <b>Es perjudicial para la salud</b>- It is harmful for your health <b>Es peligroso para mi salud</b>- It is dangerous for your health <b>Ya que el alcohol/las drogas afectan tu capacidad para tomar decisiones</b> Because alcohol/drugs affect your capacity to make decisions <b>Causa enfermedades como diabetes / cáncer / depresión</b> It causes illnesses like diabetes/ cancer / depression</p>
<p><b>En el pasado (no) llevaba</b> <i>Normally I didn't have /had</i></p>	<p><b>Una vida saludable dado que</b> <i>a healthy lifestyle because</i></p>		
<p><b>En el futuro (no) llevaré</b> <i>In the future I will (not) have</i> <b>Dentro de cinco años (no) voy a llevar</b> <i>Within five years I am (not) going to have</i></p>	<p><b>Una vida sana ya que...</b> <i>A healthy lifestyle because</i> <b>Una vida saludable dado que</b> <i>a healthy lifestyle because</i> <b>Una vida sana puesto que</b> <i>A healthy lifestyle because...</i></p>	<p><u>Positive:</u> <b>Mantenerse en forma</b>- keep fit <b>Hacer ejercicio</b>- do exercise <b>Evitar el estrés</b>- avoid stress <b>Comer bien</b>- eat well <b>Dormir ocho horas</b>- sleep 8 hours <b>Levantarse temprano</b>- wake up early</p>	<p><u>Positive:</u> <b>Nos permite desarrollar los músculos</b>- It allows us to develop the muscles <b>Tiene beneficios para el corazón / los pulmones</b>- It has benefits for the heart/lungs <b>Te permite mejorar tu salud mental</b>- It allows you to improve your mental health</p>
<p><b>Es importante que lleve</b> <i>It is important that I have</i> <b>Es esencial que llevemos</b> <i>It is essential that we have</i></p>			

1.3 Describe los problemas medioambientales (Describe environmental problems) [Quizlet list 2.4](#)

<p><b>Me preocupa(n) /me molesta(n)</b> <i>I'm worried/annoyed by</i> <b>A .... le preocupa(n)/molesta(n)</b> <i>.... Is worried/annoyed by</i> <b>Lo que más me preocupa(n)/molesta(n) es</b> <i>The thing that worries/annoys me the most is</i> <b>El problema medioambiental más grave es</b> <i>The most serious environmental problem is</i></p>	<p><b>Los animales en peligro de extinción</b>- animals in danger of extinction <b>la contaminación del aire</b>- air pollution <b>la contaminación acústica</b>- noise pollution <b>el efecto invernadero</b>- the greenhouse effect <b>la deforestación</b>- deforestation <b>la falta de transporte público</b>- the lack of public transport <b>el malgasto de energía/agua</b>- the waste of energy/water <b>el agujero en la capa de ozono</b>- ozone depletion <b>los problemas de las mareas negras</b>- the slick problems</p>	<p><b>Ya que</b> <b>Puesto que</b> <b>Dado que</b> <b>Porque</b></p>	<p><b>Podría</b> <i>(it could)</i></p>	<p><b>Causar</b> <i>cause</i></p> <p><b>Afectar a</b> <i>affect</i></p> <p><b>Constituir</b> <i>be</i></p> <p><b>Amenazar</b> <i>threaten</i></p>	<p><b>El cambio climático</b>- climate change / <b>Huracanes</b>- hurricanes <b>Sequías</b>- droughts / <b>El calentamiento global</b>- global warming <b>Incendios forestales</b>- forest fires / <b>Contaminación atmosférica</b>- atmospheric pollution <b>Enfermedades pulmonares</b>- lungs illnesses</p> <p><b>La flora y la fauna / Las aves marinas</b>- sea birds <b>La vida marina</b>-marine life / <b>Las playas</b>- beaches</p> <p><b>Un riesgo para la salud</b>- a risk for health <b>Un riesgo para la vida de los animales</b>- a risk for animals' lives</p> <p><b>El planeta</b>- the planet / <b>La vida humana</b>- human life <b>La vida de los animales</b>- animals' life</p>
<p><b>Los animales en peligro de extinción</b> -animals in danger of extinction</p>				<p><b>Algunos animales no van a sobrevivir y van a desaparecer</b> Some animals are not going to survive and are going to disappear</p>	
<p><b>la contaminación del aire</b>- air pollution</p>		<p><b>es cuando</b> <i>is when</i></p>		<p><b>es difícil respirar en las ciudades a causa del CO2</b> it's difficult to breathe in the cities because of the CO2</p>	
<p><b>la contaminación acústica</b>- noise pollution</p>		<p><b>pasa cuando</b> <i>happens when</i></p>		<p><b>hay un exceso de ruido</b>- there is noise excess</p>	
<p><b>el efecto invernadero</b>- the greenhouse effect</p>		<p><b>is a serious problem because</b></p>		<p><b>Hay un aumento de los gases en la atmósfera</b>- There's an increase of gases in the atmosphere</p>	
<p><b>la deforestación</b>- deforestation</p>		<p><b>es un problema grave porque</b></p>		<p><b>cortamos árboles en las selvas y no los reemplazamos</b> we cut down trees in the rainforests and we don't replace them</p>	
<p><b>la falta de transporte público</b>- the lack of public transport</p>				<p><b>Necesitamos más trenes y autobuses para reducir el uso del coche</b> We need more trains and buses to reduce the use of cars</p>	

La casa, vida sana y los problemas sociales y globales (THEME 2- Social and Global Issues) (HIGHER)

el malgasto de energía/agua- <i>the waste of energy/water</i>		no pensamos en las consecuencias de no apagar los electrodomésticos we don't think about the consequences of not switching off appliances muchas personas no pueden acceder al agua limpia many people cannot access clean water
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1.4 ¿Qué opinas de la pobreza y los sin techo? (What do you think about poverty and homeless people?) [Quizlet list 2.5](#)

Me preocupa <i>It worries me</i> Me molesta <i>It annoys me</i> Me fastidia <i>It annoys me</i> Me irrita <i>It irritates me</i>	Que haya <i>That there is/there are</i>	Demasiado paro- <i>too much unemployment</i> El paro/ el desempleo- <i>unemployment</i> El hambre- <i>hunger</i> / La diferencia entre los ricos y los pobres- <i>the difference between rich and poor</i> / Demasiada criminalidad- <i>too much crime</i> Tanta pobreza- <i>so much poverty</i> Tanta gente sin techo/ sin hogar- <i>so many homeless people</i>	Se necesita(n) más <i>We need more</i>	Empleo- <i>employment</i> Oportunidades de trabajo- <i>job opportunities</i> Bancos de alimentos- <i>food banks</i> Viviendas nuevas- <i>new houses</i> Hospitales- <i>hospitals</i> Programas de ayuda- <i>aid programmes</i> Ayudas económicas- <i>financial support</i>
Sin embargo, en el pasado me preocupaba más- <i>However, in the past, I was more worried about</i> Pero hace cinco años me molestaba más- <i>But five years ago I was more annoyed by</i>	El paro/ el desempleo- <i>unemployment</i> El hambre- <i>hunger</i> La diferencia entre los ricos y los pobres- <i>the difference between rich and poor</i> La criminalidad- <i>crime</i> La pobreza- <i>poverty</i> Los sin techo/ sin hogar- <i>homeless people</i>		Pero a mi hermano le irritaba <i>But my brother was irritated by...</i>	La falta de empleo - <i>The lack of employment</i> La escasez de ayudas económicas- <i>The lack of financial support</i> La falta de ayuda del gobierno- <i>The lack of help from the government</i> El problema de los desalojos - <i>The eviction problem</i>

1.5 ¿Te gustaría hacer un voluntariado? (Would you like to do voluntary work?) [Quizlet list 2.1](#)

Si fuera posible... <i>(If it were possible)</i> Si tuviera la oportunidad... <i>(If I had the chance)</i> Si me tocara la lotería <i>(If I won the lottery)</i> Si fuera famoso/a... <i>(If I were famous...)</i> Si tuviera mucho dinero... <i>(If I had a lot of money)</i> Si fuera alcalde/alcaldesa <i>(If I were the mayor)</i>	Trabajaría como voluntario/a en... <i>(I would work as a volunteer in...)</i>	Una tienda benéfica <i>Charity shop</i> Una residencia de ancianos <i>Nursing home</i> Un hogar de menores <i>Children's home</i>	Porque quiero.. <i>Because I want</i>  Ya que es importante... <i>Because it is important...</i>	Ayudar a la gente mayor <i>Help the elderly</i> Trabajar con niños necesitados <i>Work with children in need</i> Atender a los clientes <i>Take care of /serve clients</i>
	Ayudaría en... <i>(I would help in...)</i>	Un banco de alimentos <i>Food bank</i> Un comedor social <i>Soup kitchen</i>	Porque me parece esencial... <i>Because it seems essential to me...</i>	Ayudar a los sin techo <i>Help homeless people</i> Apoyar a los demás <i>Support others</i>
	Recaudaría dinero para... <i>(I would raise money for...)</i>	Una organización benéfica <i>Charity</i> Un grupo ecologista <i>Environmental group</i>	Puesto que es importante que hagamos campañas de concienciación para <i>Because it is important that we do awareness campaigns for</i>	Ayudar a la gente del Tercer Mundo <i>Help Third World people</i> Proteger la naturaleza <i>Protect nature</i>
	Participaría en... <i>(I would participate in...)</i>	Un partido de fútbol/baloncesto <i>Football/ basketball match</i> Un concurso de natación <i>Swimming contest</i> Un maratón <i>marathon</i>	Porque me permite pasar tiempo ayudando a los más necesitados <i>Because it allows me to spend more time helping those most in need</i> Ya que es importante apoyar a otras personas <i>Because it is important to support other people</i>	

1.6 Subjunctive with social issues [Quizlet list 2.3](#)

No es justo que <i>It's not fair that</i> Es terrible que <i>It's terrible that</i> Es una vergüenza nacional que <i>It's a national shame that</i> Es un escándalo que <i>It's a scandal that</i> Me da pena que <i>It saddens me that</i>	Haya <i>(there is/there are)</i>  Tengamos <i>(we have)</i>	tanta desigualdad social <i>so much social inequality</i> tanta gente sin techo <i>so many homeless people</i> tanta gente obesa <i>so many obese people</i> tantos drogadictos/ alcohólicos <i>so many drug addicts / alcoholics</i>
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KS4

Textiles

As a means to further develop your critical thinking and interpretation/analytical skills, as well as a means to develop your cultural capital and creativity, it is important for you to expose yourself to the work of a range of Textile designers/artists. This year, two of the Textiles artists you will be looking at are discussed below:

Billie Zangewa

Billie Zangewa (born in 1973 in Blantyre, Malawi) is a half-Malawian, half-South African artist who hand sews silk fabrics to create collage tapestries, and who now lives in Johannesburg. Since 2004, her art has featured in international exhibitions including at the Paris Art Fair at the Grand Palais in Paris. Zangewa's work is autobiographical and centralizes Black femininity and everyday domesticity and motherhood. Her artistic approach is indicative of the artist's expressing resistance to the oppression she faces through self-love.



Zangewa works primarily with raw silk offcuts in intricate hand-stitched collages, creating figurative compositions that explore her intersectional identity in the contemporary context and challenge the historical stereotyping, objectification and exploitation of the black female body. Working in a flat, colourful style, she depicts narratives concerned with experience: both personal and universal. These narratives do not make grand gestures or even overt political statements, but rather focus on mundane domestic preoccupations; universal themes connecting us to each other. Almost always the protagonist in her works, Zangewa becomes a heroine whose daily life is revealed through the scenes she illustrates.

Zangewa's finished tapestries celebrate imperfection with their raw, irregular edges and often large pieces seemingly cut out of the tapestry that seem to impede on the scene. This tactic also works to break any illusions of the work being painted on canvas.



Sheila Hicks

Sheila Hicks (born 1934) is an American artist. She is known for her innovative and experimental weavings and sculptural textile art that incorporate distinctive colours, natural materials, and personal narratives. Working primarily with fibre; Hicks creates vibrant and dynamic sculptures and wall hangings that refer to traditional artisan textiles such as weaving, knitting, knotting, and braiding. Her fibre forms – with their bright colours – whether shaped into vertical cords, disks, or horizontal tubes, present a visual experience.



KS4

Textiles

In Textiles Design we use a range of specialist techniques in order to decorate textiles to make them more aesthetically pleasing and interesting. The information below explains some of the techniques you will explore this year.

Tufting

Tufting is the act of a needle punching through a backing material in the form of a loop. The traditional method is to stretch Monks Cloth over a frame and punch yarn through it using a tufting gun or tufting needle. Depending on loop heights, these loops can add texture, dimension, and, if cut, the "cut pile" can add a velvet like appearance to the tufted area.



Fabric Painting

Fabric painting simply refers to any painting done on a fabric. It encompasses everything from ancient artifacts with intricate resist paintings to the painting a young child may do on a t-shirt. Fabric painting has been around for thousands of years.



3D Shibori

3D Shibori is a technique for adding texture and shaping textiles. You wrap items into fabric, secure them with thread and set them with heat, and in this way the process leaves a "memory on cloth" – a permanent record, whether of patterning or texture, of the particular forms of resistance to the change. Cloth holds the memory of action performed on it!



Wet Felting

Wet felting involves creating rectangular fabric made of several layers of wool (not plant or synthetic fibres because those won't felt well), applying water and mild soap, and sponging or agitating the wool to encourage the fibres to lock together



Lino Printing

Lino Printing is a form of block printing that involves carving a pattern or design into a linoleum, rubber or vinyl surface that can then be printed from. The recesses carved out leave the design in relief and it is the raised design that the ink is applied to and then transferred to the paper when pressure is applied by hand or printing press.



Screen Printing

Screen printing, also known as silk screening or silkscreen printing, is the process of transferring a stencilled design onto a surface using a mesh screen, ink, and a squeegee (a rubber blade). The basic process of screen printing involves creating a stencil on a mesh screen and then pushing the ink to create and imprint the design on the below surface.



TEXTILES



SPaG

Grammar: Write in sentences

A sentence is a group of words that make sense. Sentences start with a capital letter and end with a full stop, question mark or exclamation mark. All sentences contain **clauses**. You should try to use a range of sentences when writing. There are three main types of sentences.

**Simple sentence:** A sentence containing one main clause with a **subject** and a **verb**.

He **reads**.  
Literacy **is** important.

**Compound sentence:** Two simple sentences joined with a **conjunction**. Both of these simple sentences would make sense on their own. Varying conjunctions makes your writing more interesting.

He **read** his book **because** it **was written** by his favourite author.  
Literacy **is** important **so** students **had** an assembly about reading.

**Complex sentence:** A longer sentence containing a main clause and one or more **subordinate clause (s)** used to add more detail.

The main clause makes sense on its own. However, a subordinate clause would not make sense on its own, it needs the main clause to make sense. The subordinate clause is separated by a comma (s) and/or conjunction. The clause can go at the beginning, middle or end of the sentence.

He **read his book** **even though it was late**.  
**Even though it was late**, he **read his book**.  
He **read his book**, **even though it was late**, because it was written by his favourite author.

**How can you develop your sentences?**

1. Start sentences in different ways. For example, you can start sentences with adjectives, adverbs or verbs.

**Adjective:** **Funny** books are my favourite!  
**Adverb:** **Regularly** reading helps me develop a reading habit.  
**Verb:** **Looking** at the front cover is a good way to choose a reading book.

2. Use a range of **punctuation**.

**3. Nominalisation**

Nominalisation is the noun form of verbs; verbs become concepts rather than actions. Nominalisation is often used in academic writing. For example:  
It is important to **read** because it helps you in lots of ways.  
Becomes: **Reading** is beneficial in many ways.

Germany **invaded** Poland in 1939. This was the immediate cause of the Second World War breaking out.  
Becomes: Germany's **invasion** of Poland in 1939 was the immediate cause of the outbreak of the Second World War.

Connectives and Conjunctions	
<b>Cause And Effect</b>	Because So Consequently Therefore Thus
<b>Addition</b>	And Also In addition Further (more)
<b>Comparing</b>	Whereas However Similarly Yet As with/ equally/ Likewise
<b>Sequencing</b>	Firstly Initially Then Subsequently Finally After
<b>Emphasis</b>	Importantly Significantly In particular Indeed
<b>Subordinate</b>	Who, despite, until, if, while, as, although, even though, that, which





# Year 11 Knowledge Organiser



**Haggerston  
School**

Aspiration Creativity Character