Hartford
Church of England
High School

CARITAS ET VERITAS

Year 10

Knowledge Organiser

Contents

Maths

Maths - Foundation

Rounding

Rounding to a given number of 1 decimal places	To do this put a line in 1 **number** after the **decimal point** (after the tenths). If the **number** after this line is less than 5 **round** down, or **round** up if the **number** is 5 or above.
Rounding to 1 significant figure.	The first non zero number is the first significant figure. All numbers after this should be zero.
Rounding to 'n' significant figures.	The first non zero number is the first significant figure all other numbers including zero are significant. Write the first n numbers then all the rest are zero.
ESTIMATE a calculation,	Round every individual number to 1 significant figure then calculate the answer.

Bounds:

How to find the upper and lower bound?

1. Half the degree of accuracy specified
2. Add to get the upper bound.
3. Subtract to get lower bound.

Find the lower and upper bound of 5.7 to 1 decimal place.

1. Half the degree of accuracy = 0.1 ÷ 2 = 0.05.
2. Upper bound = 5.7 + 0.05 = 5.75.
3. Lower bound = 5.7 – 0.05 = 5.65.

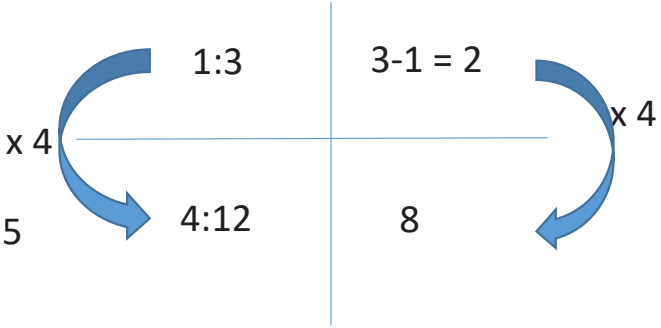
Ratio- a way of comparing 2 or more quantities

Simplify ratio:

Divide by common factors.

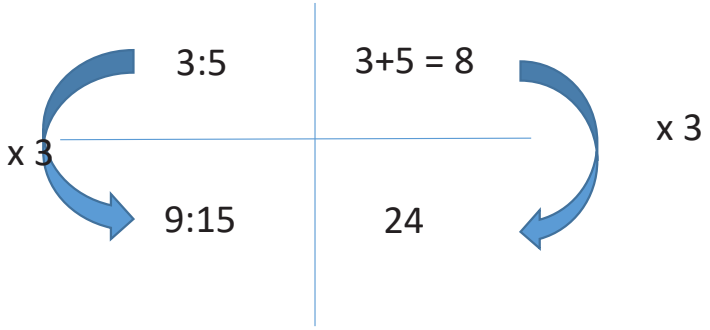
Ratio- difference between:

A bag contains yellow +blue blocks in the ratio 1:3 There are 8 more blue blocks than yellow blocks. How many yellow blocks are there?



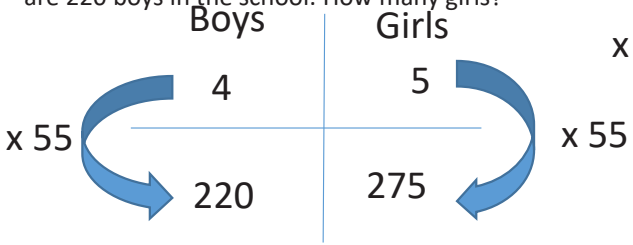
Share in a ratio:

James and Helen get pocket money in the ratio **3 : 5**. The total amount of pocket money they are given is £24. How much money do they each get?



Ratio- finding on quantity:

The ratio of boys to girls in a school is 4 : 5 There are 220 boys in the school. How many girls?



Maths - Higher

Factorise- put into brackets

Expand- multiply out brackets

Difference of 2 squares:

$$a^2 - b^2 = (a + b)(a - b)$$

Consecutive integers: n,n+1,n+2

Complete the square:

$$x^2 + bx + c$$

$$(x + \frac{b}{2})^2 - \left(\frac{b}{2}\right)^2 + c$$

Odd number- 2n+1

Arithmetic/ Geometric sequences

Arithmetic Sequences change by a common difference. This is found by addition or subtraction between terms

Geometric Sequences change by a common ratio. This is found my multiplication/ division between terms.

Term to term rule – how you get from one term (number in the sequence) to the next term

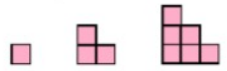
Position to term rule – take the rule and substitute in a position to find a term. E.g. Multiply the position number by 3 and then add 2.

Other sequences

Fibonacci Sequence 1, 1, 2, 3, 5, 8 …

Each term is the sum of the previous two terms

Triangular Numbers – look at the formation



1, 3, 6, 10, 15 …

Square Numbers – look at the formation

1, 4, 9, 16…

Sequences are the repetition of a patten

Quadratic formula:

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

For a general equation:

$$ax^2 + bx + c = 0$$

Even number- 2n

Arithmetic nth term:

$a_n = a + (n - 1)d$

where a_n = n^{th} term of the sequence
a = first term of the sequence
d = common difference

Geometric nth term:

$a_n = ar^{n-1}$

where a_n = n^{th} term of the sequence
a = first term of the sequence
r = common ratio

Quadratic nth term:

a = Second difference / 2

b = The difference of each (Term - an^2)

1st term = $a + b + c$

Once you have found a, b and c you can slot these figures in the following formula.

$an^2 + bn + c$

English

English - An Inspector Calls

AN INSPECTOR CALLS

Context: Key Ideas

1912 – when the play was set. Just before WW1 (1914-18) and the sinking of the Titanic. JBP wanted to make sure audiences in 1945 recognised the problems of society in 1912 before the wars (class system, capitalism, sexism) and weren't tempted to go back to living like that. He wrote the play to highlight the dangers of the capitalist lifestyle.

1945 – when the play was written and performed. After WW2, society changed for the better. The benefits system started to be introduced and there was more equality for women and less of a class divide because of different classes and different genders integrating in order to assist with the war. JBP supported and encouraged these changes and wanted to make sure he promoted them in his play by making capitalists like the older Birlings appear ignorant and selfish.

Socialism – JBP was a keen Socialist. This meant that he wanted everyone to look after each other rather than just caring about themselves. He was trying to promote this with the play, by making the Socialist characters like the Inspector much more insightful than the capitalist ones.

Capitalism – JBP wished to challenge Capitalists – those who believe in individual profit over equality. He created Mr and Mrs Birling as an emblem for capitalism, in order to present capitalism as egocentric and regressive.

Outdated ideas – In 1912, the social classes were segregated, women got paid less than men for the same work, there was no benefit system or help with unemployment or housing. Society was patriarchal (men ruled).

Priestley – was a broadcaster and playwright, he also served in the army in WW1. Priestley saw, firsthand, during WW1, men from different paths in life/ classes coming together and working for the common, greater good. He believed that this mantra should be taken forward in a broader context to make society more responsible for one another. When working for the BBC as a broadcaster during WW2, Priestley broadcast a series of short propaganda radio shows which were credited for strengthening civilian morale. His left wing beliefs brought him into conflict with the government and influenced the birth of the welfare state. The programme was eventually cancelled by the BBC for being too critical of the government.

Characters

Mr Birling	The father. He is egocentric and capitalist businessman who works against social equality due to his own greed. He sacks Eva from his factory when she asks for equal pay for women and threatens a strike.
Mrs Birling	The mother. She is a superior and conceited capitalist who believes everyone is responsible for themselves. She doesn't help Eva when she comes to the charity for help because of her own prejudicial views against the proletariat.
Inspector	The interrogator. He is Priestley's mouthpiece (represents JBP's personal views) and a keen Socialist who fights for collective responsibility and encourages the Birlings to re-evaluate their outlook and their actions.
Sheila	The daughter. She wrongly causes Eva to lose her job because she purposely misinterprets her actions. Sheila is initially ignorant of her privilege but transform her views as the play progresses and she eventually feels sympathy for Eva Smith's plight and starts to adopt increasingly Socialist views. By the end of the play, there is a huge disparity between Sheila's views and those of her parents.
Eric	The son. Priestley hints that Eric is an alcoholic and it is heavily implied that his sexual encounter with Eva is not consensual and that she was raped. As a result of this, Eva falls pregnant and Eric resorts to stealing from his dad to give Eva money.
Gerald	Sheila's fiancé. Gerald is a businessman who has capitalist ideals and has similar political beliefs to Mr Birling. He shows some regret for his affair with Eva, but does not seem sincere in making any long-term changes to his beliefs.

Plot

ACT 1	The family are celebrating Sheila and Gerald's engagement. Mr B states there will be no war, and the Titanic is unsinkable. An Inspector arrives and tells them Eva Smith has committed suicide. He urges Mr B to admit sacking her from his factory because she threatened to strike over unfair wages. He refuses to accept any blame. The Inspector encourages Sheila to admit that she caused Eva to lose her job at Milwards. She is contrite and ashamed of herself.
ACT 2	The Inspector prompts Gerald to admit having an affair with Eva Smith (now called Daisy Renton after a name change). Sheila consequently questions her relationship with Gerald. The Inspector coaxes Mrs B into admitting not helping Eva when she came to Mrs B's charity for help when she became pregnant because of her own prejudicial views. Mrs B attempts to evade blame by stating that it should be the father's responsibility. At the end of the Act, it is revealed that the father of Eva's baby was Eric.
ACT 3	Eric suggests that he raped Eva Smith which resulted in her pregnancy. The Inspector gives his final speech about fire, blood and anguish. He warns the family that if they don't start to take responsibility for others, they will live to regret it. The Inspector then leaves. Gerald seemingly discovers that the Inspector wasn't a real inspector. Mr B rings to check and there is no Inspector Goole. Mr and Mrs B (and Gerald) celebrate. Sheila and Eric still feel guilty and can't go back to how they were before. Right at the end, the telephone rings and they are told that a girl has just committed suicide and an inspector is on his way over to ask some questions.

Key themes

GENERATIONAL DIFFERENCES: the older generation (Mr and Mrs Birling) are a symbol of capitalism, so they do not change their ways and they are reluctant to accept blame for their role in Eva's demise. The younger generation, on the other hand (Sheila and Eric) become a symbol of Socialism as the play progresses. They accept blame and want to change; they change throughout the play, for the better.

RESPONSIBILITY / JUSTICE - the Inspector, as Priestley's mouthpiece, is a symbol of Socialism – he wants everyone to look after each other and to view community as very important. He is sent to uncover the family's wrongdoings and to make them see that they should take responsibility for others. Sheila and Eric realise this, but Mr and Mrs B do not.

GENDER INEQUALITY-Priestley anted to show his audience that there was a lot of inequality back in 1912 when it came to how women were treated. By making certain characters out to be sexist, he highlighted this problem and tried to shame audiences into changing their own views about gender equality too. This is perhaps why the victim of their actions is a woman, and why she is working class (working class women were at the bottom of the pile in those times).

CLASS DIFFERENCES- Priestley wanted to highlight that inequality between the classes still existed and that the upper-classes looked down upon the working-class in post-war Britain. In *An Inspector Calls*, Priestley explores the theme of class through the treatment of working-class Eva Smith by the wealthy Birlings and Gerald Croft.

English - An Inspector Calls

Dramatic Techniques	
Dramatic Irony	When the audience knows something that the characters don't. Used usually to create tension or humour.
Tension	A dramatic device used to create a sense of suspense or to make the audience feel on edge; tension is often created through the use of cliff-hangers
Monologue	A speech of some length which is usually directed to a second person, without them interrupting.
Interruptions	When characters cut into the speech of other characters and stop them from speaking.
Contrast	When two things are strikingly different to one another, serving to heighten their differences further.
Repetition	When a word or phrase is noticeably repeated throughout a sentence/ paragraph/ whole text
Cyclical structure	When the opening of the story is mirrored, or is repeated at the end of the story – usually in order to convey a message about change (or lack thereof)

Non-Fiction Writing

Language Techniques	Definition	Example
Rhetorical question	A question asked in order to prompt further thought or to make a point rather than to get an answer.	If not me, then who? If not now, then when?
Anecdote	A very short story that is significant to the topic at hand; usually adding personal knowledge or experience to the topic.	I once had a border collie. She was so smart. Every morning, I'd open up the front door and she'd run out, pick up the newspaper, and deliver it to my husband at the breakfast table.
Simile	A descriptive technique that compares one thing with another, usually using 'as' or 'like'.	He is as determinedly dishonest as a politician attempting to cover his latest immoral decision.
Emotive language	Words/ phrases deliberately used to evoke a powerful feeling from the reader i.e. sympathy, anger.	I find the notion that I am not worthy of voting for my country's next leader because of my age, both demeaning and deeply insulting.
Statistic	A fact that is supported by numerical data.	The Trussell Trust's foodbank network distributed 1,332,952 three day emergency food supplies to people in crisis, a 13% increase on the previous year. 484,026 of these went to children.
Flattery	Deliberately complimenting the reader.	The very fact that you are reading this article suggests that you are compassionate and understanding of the plight of your fellow man.
Hyperbole	Deliberately exaggerated language.	He was so obnoxious; I was hoping he would be arrested on the spot and given a very long prison sentence purely for not saying please or thank you.
Humour	Describing a surprising or unexpected reaction to an event/ person/ object to create amusement	My brother may look angelic but do not be fooled by his toddler aesthetic: he is a tiny-but very real-psychopath.
Rule of three	Using three words/phrases to add substance to what you're saying.	Increased costs; customer dissatisfaction and a decrease in employee morale are just three reasons why this simply could not go ahead.
Fact	Something that is known or proven to be true.	People enjoy feeling good. This is scientifically proven.
Eye-witness quotation/ expert quotation	Direct speech from a person who witnessed an event/ direct speech from someone who has an in-depth understanding of the topic.	The British Nursing Association said the move was "hugely concerning" and a stark example of the "extreme workforce pressure" at NHS emergency services, which are facing rising demand while recruitment and retention of nurses gets harder.

Text Types	
Letter	❑the use of addresses & date ❑a formal mode of address e.g. Dear Sir/Madam or a named recipient ❑effectively/fluently sequenced paragraphs ❑an appropriate mode of signing off: Yours sincerely/faithfully.
Article	❑Broadsheet = formal/Local or tabloid = informal ❑a clear/apt/original title ❑a strapline & subheadings ❑an introductory (overview) paragraph ❑effectively/fluently sequenced paragraphs.
Speech (text only)	❑a clear address to an audience ❑effective/fluently linked sections to indicate sequence ❑rhetorical indicators that an audience is being addressed

Science

Science - Evolution & Natural Selection

Hartford Church of England High School

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EDEXCEL GCSE NATURAL SELECTION AND GENETIC MODIFICATION PART 1

Theory of evolution (Biology only)

Charles Darwin	*Theory of evolution by natural selection.*	Individual organisms within a particular species show a wide range of variation for a characteristic.
		Individual most suited to the environment are more likely to breed successfully.
		Characteristics enable individuals to survive are then passed on to the next generation.

Developed since its proposal from information gathered by other scientists.

Did much pioneering work on speciation but more evidence over time has lead to our current understanding.

Evidence from around the world, experimentation, geology, fossils, discussion with other scientists (Alfred Wallace) lead to:

Alfred Wallace	*Independently proposed the theory of evolution by natural selection*	Published joint writings with Darwin in 1858.
		Worked worldwide gathering evidence.
		Best know for work on warning colouration in animals and his theory of speciation.

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.

Both Darwin and Wallace's work contributed to the modern science of genetics and 'molecular biology'.

Human evolution

Evidence for human evolution	
Fossils	*Stone tools*
Ardipithecus ramidus 'Ardi' from 4.4 million years ago	Earliest simple stone tools from 3.3 million years ago.
Australopithecus afarensis 'Lucy' from 3.2 million years ago	The age of different layers of rock can be dated. Stone tools found in those layers are the same age.
Leakey's discovery of *Homo habilis* from1.6 million years ago	

Classification of living organisms

The full human classification

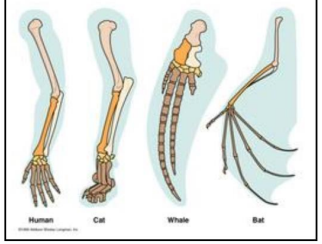
Carl Linnaeus classified living things	
Kingdom	Animalia
Phylum	Chordata
Class	Mammalia
Order	Primates
Family	Hominidae
Genus	*Homo*
Species	*sapiens*

The five kingdoms are animals, plants, fungi, protista, prokaryotes

Carl Woese	
3 domains instead of kingdoms based on genetic analysis.	
Archaea (primitive bacteria), true bacteria, eukaryota.	

Evidence for evolution

Evidence for evolution from anatomy (Biology only)
The pentadactyl limb
Darwin suggested that the five finger (pentadactyl) limb found across many vertebrates suggest a common ancestor.



Antibiotic resistance in bacteria provides 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.

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

Selective breeding

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.

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.	

Science - Evolution & Natural Selection

EDEXCEL GCSE NATURAL SELECTION AND GENETIC MODIFICATION PART 2

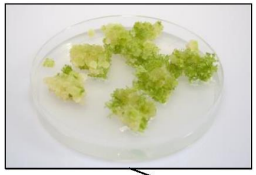
Agricultural solutions

(Biology only) Solutions to growing human populations		
	Fertilisers	**Advantages:** Increases the growth and yield of crop plants.
		Disadvantages: Excess fertiliser can run off into lakes and rivers and cause pollution leading to the death of other plants and animals.
	Biological control	**Advantages:** Insects can be used to control weed populations. No herbicides are necessary.
		Disadvantages: Introduced insects can complete for non weed plants and disrupt other species food chains.

Risks and benefits

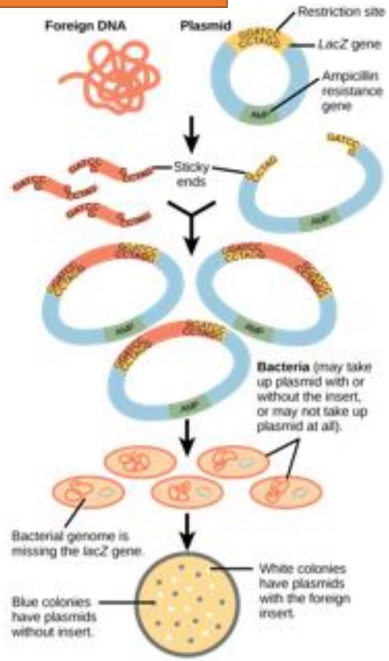
Risks and benefits (practical and ethical)	
Genetic engineering	**Risks:** Seeds from GM plants can be very expensive. Some people think eating GM plants is bad for health although there is no evidence to support this view.
	Benefits: decreased use of herbicide with increase in yield from food crops. Medicines tailored for individuals.
Selective breeding	**Risks:** alleles that may be useful in future may be bred out. Populations with low variation can be vulnerable to genetic diseases.
	Benefits: Increased growth and yield of plants and animals for food.

Tissues cultures



Cloning techniques in plants/animals	
Tissue culture	Small groups of cells to grow new plants in nutrient solution or solid agar. **Advantage:** Important for preservation of rare plants and commercially in nurseries.
	Small groups of human cells used to grow new tissues. **Advantage:** matched tissues can be grown that are not rejected by the body's immune system.

Genetic engineering



Modification of the genome of an organism to introduce desirable characteristics

Genetic engineering process (HT only)
1. Restriction enzymes are used to isolate and cut out the required gene.
2. If sticky ends of DNA on the isolated gene and the plasmid DNA match then they can be joined together.
3. DNA is joined in the plasmid DNA using the enzyme ligase – bacterial plasmid or virus.
4. Genes are transferred to plants/animals/microbes in a vector (bacteria or virus) at an early stage of development so they develop the required characteristics.

Advantages and disadvantages of genetic engineering	
Advantages	Modification of crop plants e.g. insect resistance from Bacillus thuringiensis. Modification of bacteria to produce human hormones e.g. human insulin made by bacteria.
Disadvantages	Resistant crops could pass on genes to wild plants affecting food chains. Insulin produced using GM bacteria is not identical to human insulin and not everyone can use it.

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

Science - SC8 - Acids & Alkalis

EDEXCEL TOPIC SC8: ACIDS & ALKALIS

Base	*A base is any substance that reacts with an acid to form a salt and water only*
Examples of soluble bases	*Alkalis e.g. sodium hydroxide, potassium hydroxide*

Acids

Concentrated	*High mass of substance in a given volume of solution*
Dilute	*Low mass of substance in a given volume of solution*
Strong acids	*Completely ionised in aqueous solutions e.g. hydrochloric, nitric and sulfuric acids.*
Weak acids	*Only partially ionised in aqueous solutions e.g. ethanoic acid, citric acid.*
Hydrogen ion concentration	*As the pH decreases by one unit (becoming a stronger acid), the hydrogen ion concentration increases by a factor of 10.*

Strong and weak acids (HT ONLY)

Reactions with acids

Reactions with acids		
Metals	*Metal + acid → metal salt + hydrogen*	Magnesium + hydrochloric acid → magnesium chloride + hydrogen
Metal oxides	*Metal oxide + acid → metal salt + water*	Copper oxide + sulfuric acid → copper sulfate + water
Metal hydroxides	*Metal hydroxide + acid → metal salt + water*	Sodium hydroxide + nitric acid → sodium nitrate + water
Metal carbonates	*Metal carbonates + acid → metal salt + carbon dioxide + water*	Calcium carbonate + sulfuric acid → calcium sulfate + carbon dioxide + water

Acids

Producing salts from insoluble reactants

Soluble salts	*Soluble salts can be made from reacting acids with solid insoluble substances (e.g. metals, metal oxides, hydroxides and carbonates).*
Production of soluble salts	*Add the solid to the acid until no more dissolves. Filter off excess solid and then crystallise to produce solid salts.*

Gas tests

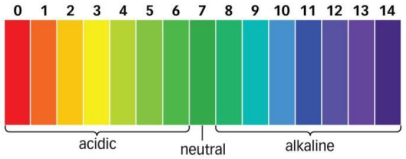
Gas	Test	Positive result
Hydrogen	*Burning splint*	'Pop' sound.
Carbon dioxide	*Limewater*	Goes cloudy (as a solid calcium carbonate forms).

Producing salts from soluble reactants

Titration	*The acid and the soluble reactant are mixed in the correct proportions and the remaining solution is only salt and water*

The pH scale and indicators

Universal indicator	*Red in acid, green in neutral and blue in alkali*
Litmus	*Red in acid, purple in neutral and blue in alkali*
Methyl orange	*Red in acid, yellow in neutral and yellow in alkali*
Phenolpthalein	*Colourless in acid and in neutral and pink in alkali*



Acids	*Acids produce hydrogen ions (H^+) in aqueous solutions.*
Alkalis	*Aqueous solutions of alkalis contain hydroxide ions (OH^-).*

A neutralisation reaction is between an acid and a base	In neutralisation reactions, hydrogen ions react with hydroxide ions to produce water: $H^+ + OH^- \rightarrow H_2O$

Science - SP5 - Electromagnetic Spectrum

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EDEXCEL TOPIC 5 LIGHT AND EMS

Electromagnetic Spectrum

PHYSICS ONLY

PHYSICS HIGHER ONLY

Radio waves absorbed by metal and cause oscillations in electrical circuits connected to the aerial.

Metal can be used as an aerial to receive radio waves.

Radio waves made by oscillations in electrical circuits.

Radio	Transmitted.
Microwave	Absorbed.
Infrared	Mostly reflected or absorbed.
Visible	
Ultra violet	Absorbed.
X-ray	Absorbed by deep tissue.
Gamma	

Different substances absorb, transmit, refract and reflect EM waves depending upon wavelength.

EM waves transfer energy from source to observer e.g. infrared waves transfer energy from heater to person

Core Practical

Investigate surface s affecting thermal energy radiation or absorption

Different surfaces, temperature at start and end, thermal energy gained or last

Temperature of Earth is controlled by the amount absorbed = amount radiated.

More absorbed, temperature increases.

For a body to be at constant temperature, the amount absorbed = amount radiated.

He found the red end was hot but just beyond the red end was even hotter.

He split sunlight into a spectrum using a prism. He put a thermometer in each temperature and measured the temperature just beyond the red end of the spectrum

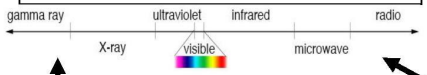
Herschel 1738-1822	***Discovered infra-red***	He used different coloured filters to observe the sun.

Infra-red	***EM waves with frequencies slight lower than visible light***	Objects emit infra-red. The hotter the object is, the more infra-red is emitted.

HIGHER ONLY

Different EM wavelengths travel at different velocities through different materials.

Electromagnetic wave	***Continuous spectrum of transverse waves***
Travel at the same speed in a vacuum (3×10^8 m/s).	



Short wavelengths, high frequency and high energy.

Our eyes only detect a small part of spectrum e.g. visible light.

Long wavelengths, low frequency and less energy.

EM waves are generated by changes in atoms and nuclei giving large range of frequencies.

e.g. changes in the nucleus of an atom creates gamma rays. Visible light is often produced by changes in an electron's energy level.

EM wave	Use	Danger
Radio	Broadcasting TV, radio, communications, satellite transmissions.	Safe.
Microwave	Cooking, communication and satellites transmissions (mobile phones).	Internal heating of cells.
Infrared	Cooking, thermal imaging, short range communications, optical fibres, TV remote controls, security systems.	Skin burns.
Visible	Vision, illumination, photography.	Damage to eyes.
Ultra violet	Security marking, disinfecting water, fluorescent lamps, detecting forged bank notes.	Damage to eyes, surface cells, sunburn, cancer.
X-ray	Observing internal structure of objects, broken bones, airport security.	Cell destruction, mutation, cancer.
Gamma	Sterilising food and medical equipment, detecting and treating cancer.	

Frequency increases.

PHYSICS ONLY

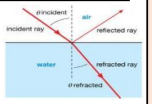
Light

PHYSICS ONLY

Core Practical

Investigate refraction

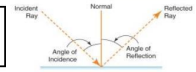
Light passing through a glass block.

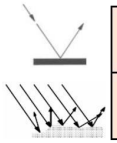


Light refracts as it slows down in a denser substance.

Total internal reflection		
	When a wave hits a surface and is reflected back into the material	Only happens when a wave travels through a denser material.
	Angle of incidence is larger than the critical angle, no light leaves all light internally reflected.	
	Angle of incidence is equal to the critical angle, most light leaves along the surface boundary (some internally reflected).	
	Angle of incidence is less than the critical angle, most light is refracted (some internally reflected).	

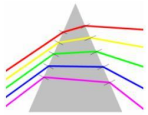
Angle of incidence = angle of reflection (i) = (r)





Specular reflection	***Very smooth surface reflects light evenly***
Diffuse reflection	***Rough surfaces reflect light by scattering in all directions***

White light		
	A mixture of different colours of light	Can be split up into the colours of the visible spectrum by using a prism.

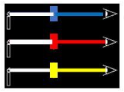


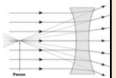
Seeing colours
When white light hits a coloured surface, some of the visible spectrum is absorbed and some is reflected.
When white light passes through a filter, some colours are absorbed and some colours are transmitted.

The more powerful the lens, the more the rays of light refract so the shorted the focal length.

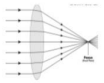
Focal length is linked to the power of lens.

Power of lens increases with its curvature.





Diverging lens	***Thinner in the middle***	Focal point is the point from which the rays seem to be coming from after passing through the lens.	Only virtual images.
Converging lens	***Fatter in the middle***	Parallel rays of light converge at focal point.	Real or virtual images.

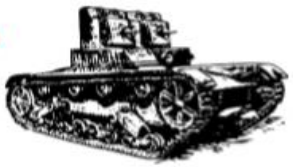


Object close to a converging lens will form a virtual image The image appears to be on the same side as the object.

2F	Image same size, upside down, real.
2F - F	Image larger, upside down, real.
< F	Image bigger, right way, virtual.

History

History - World War 1



WORLD WAR I

WW1 Countries (Europe)

Timeline

1914	1914	1914	1915	1916	1917	1917	1918	1918
War declared on July 28th	Trenches dug by Germans in September	An unofficial truce declared on Christmas Eve	Germans sink a cruise ship called the Lusitania	Battle of the Somme	USA declares war on Germany on April 6th	Russians leave the war on December 17th	The 2nd Battle of Marne - Allies win	War ends officially on 11th November at 11am

Key Vocabulary

air force	Invented by the Wright brothers in 1903, planes played a vital role by the end of the war.
animals	Horses, donkeys and camels carried food, water, ammunition and medical supplies.
bayonet	A type of rifle with an attached knife at the end for close and distance combat.
gas mask	Protection against poisonous gas attacks (often a lethal chlorine gas) in the trenches.
navy	Allied forces had hundreds of ships to protect British and the Empire's coasts.
poetry	Famous poets wrote about the war at the time such as Wilfred Owen and Siegfried Sassoon.
poppy	Used since 1921 as part of Remembrance Day, they grew back on many fields after the war.
propaganda	Posters and leaflets distributed throughout the war to persuade people to join the army.
rations	Ration cards were given out and only a certain amount of food per family was allowed.
zeppelins	Giant airships used to first bomb London in May 1915 but vulnerable to storms and allied attacks.

DID YOU KNOW?

Over 16 million people died during World War I. One of the largest battles of World War I was the Battle of the Somme in France. It lasted from 1 July to 18 November 1916. Around one million people were killed or wounded during that time.

GENERAL KNOWLEDGE

Who and Why?

Allies: Great Britain, France, Russia, Italy, Japan and USA
Central Powers: Germany, Austria, Hungry, The Ottoman Empire (Turkey)
65 million soldiers fought and 16 million lost their lives. Austria-Hungry declared war on Serbia, and Germany threatened to invade France. Within a week, all of Europe was involved.

Trench Warfare

Long lines of trenches (walkways) were dug deep into the ground where soldiers could base themselves and fight from. Much of the war was fought between two opposing trenches with the land between them known as 'No Man's Land'. The Western Front was over 400km of trenches stretching from Belgium through NE France.

The End of the War

Allied forces gained ground quickly through 1918 and the Germans retreated. An Armistice agreement was made (a truce to bring about peace) on 11th day of the 11th month at 11am and submarines, canons, machine guns and train carriages were surrendered, including all prisoners of war. They also had to pay war damages.

FAMOUS FIGURES

Franz Ferdinand (1863-1914)
Archduke of Austria, whose assassination led to Austria-Hungry declaring war on Serbia at the beginning of World War I.

Herbert Henry Asquith (1852-1928)
Prime Minister from 1908 to 1916, during the beginning of World War I.

David Lloyd George (1863-1945)
Prime Minister from 1916-1922, during the end of World War I.

Kaiser Wilhelm II (1859-1941)
Leader of Germany during World War I.

Woodrow Wilson (1856-1924)
President of the United States during World War I, who helped to draw up the Treaty of Versailles which agreed the terms of peace.

King George V (1865-1936)
King during World War I, who declared the first Remembrance Day in 1918.

History - World War 1

Timeline

1	**28th June 1914 -** Archduke Franz Ferdinand is assassinated in Bosnia
2	**4th August 1914 –** Britain declares war on Germany
3	**8th August 1914** Britain passes **DORA** (the Defence of the Realm Act) which gives the government powers such as to ration food, control the news and use factories.
4	**September 1914** The French stop the German attack at Marne, leading to the start of Trench Warfare on the Western Front
5	**April 1915 –** Poison gas is used for the first time at the Second Battle of Ypres
6	**June 1915 –** The first ever 'dog fight' between German and British airplanes
7	**July 1916 –** Battle of the Somme, the largest battle of the war.
8	**Sept 1916** – The ever first tank is used in the Battle of the Somme
9	**January 1917 –** Conscription introduced in Britain
10	**February 1918** – **Representation of the People Act**, this gives the first time vote to men over 21 and women over 30
11	**11th November 1918 –** An armistice is signed, Germany surrenders and WW1 ends
12	**1919 –** Government passes a law forcing women to leave their war time jobs as men return from the war and factories were not needed for wartime production

Key Concepts

13	**Trench Warfare**	Trench warfare is a type of fighting where both sides build deep trenches as a defence against the enemy. These trenches can stretch for many miles and make it nearly impossible for one side to advance.
14	**Western Front**	The area of fighting in western Europe in the First World War. A majority of fighting was done in North–Eastern France and Belgium in trenches
15	**Alliance**	An agreement between countries to protect each other in war. This was major cause of WW1, there were two main alliance in 1914. The Triple Entente (France, Britain and Russia) and the Triple Alliance (Germany, Austria-Hungary and Italy)
16	**War of Attrition**	A war based on winning by wearing down the enemies armies, economy and morale. This happened in the First World War

History - World War 1

17	**The BEF**	The British Expeditionary Force, Britain's army in 1914
18	**Conscription**	Compulsory order for all men 18 to 41 to join the army
19	**Schlieffen Plan**	German plan in 1914 to attack and defeat France, then attack Russia so they would not have to fight both.
20	**Stalemate**	A deadlock where no side is able to make progress to win.
21	**No Mans Land**	Area separating opposing armies in trench warfare.
22	**Tommy**	Nickname for a British soldier.
23	**Barbed Wire**	Strong wire with sharp barbs at regular intervals, used to stop people passing.
24	**Mustard Gas**	Poisonous gas used by the Germans, French and British
25	**Artillery**	Large guns that fire explosive shells over long distances
26	**Trench Foot**	A painful condition of the feet caused by long exposure in cold water or mud, as a result some feet were amputated.
27	**Trench Fever**	A disease caused by lice bites which made soldiers very ill in the trenches.
28	**Dugout**	Shelter dug into the side of the Trench
29	**Bayonet**	A blade attached to the end of a soldiers rifle
30	**Armistice**	An agreement made by tin a war to stop fighting.
31	**War effort**	How people at war and at home contribute to the war.
32	**Conscientious Objector**	Someone who refuses to fight or be involved in war for religious, moral or political reasons, also called 'Conchies'
33	**Suffragette**	Women who protested, using violent methods to achieve equal rights for women, like voting.
34	**Suffrage**	The right to vote in political elections.
35	**Strike**	Where workers refuse to work in protest
36	**Munitions**	Military weapons and ammunition
37	**David Lloyd George**	Prime Minster of Britain during and after WW1

History - World War 1

Research:

Investigate the importance of the Battle of Arras

Investigate what happened at the Battle of Caporetto

How significant was Field Marshal Haig?

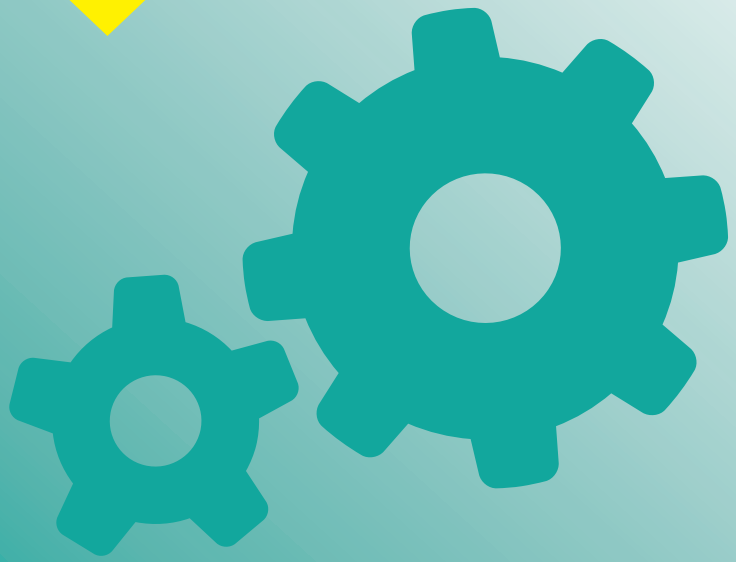
Investigate how troops from the British Empire helped Britain's to achieve final victory in WWI

Geography









Geography - Bristol

Location and Population

Bristol is located in the south-west of England, approximately 5km to the west of Swindon.

Bristol has a population of 440,500 and is expected to reach half a million by 2029. It is the largest city in the south west.

The Importance of Bristol

Nationally:

- Two universities – attracts students from around the UK
- Two cathedrals – Bristol and Clifton
- Located on the M4 corridor with good road and rail links to London

Internationally:

- The largest concentration of silicon chip manufacture outside California
- Around 700,000 cars from Japan, Germany and Korea are imported to Bristol's docks each year
- Bristol airports links the city to major European centres
- The UK's eighth most popular city for foreign visitors

The impacts of national and international migration

In recent years' migration from abroad has accounted for about half of Bristol's population growth e.g. from EU countries such as Poland. Migrant workers are employed in a variety of sectors e.g. retail, health and manufacturing.

Positive Impacts	Negative Impacts
• Mainly young migrants help to balance and ageing population • Hard working, motivated workforce • Contributing to both the local and national economy	• Pressures on housing and employment • The need to provide education for children whose first language is not English • Challenge of integration within community

What changes are affecting Bristol?

- Bristol's population is growing rapidly
- The network of motorways, road, rail and air connections has made it more accessible
- There are more people under the age of 16 than over 65
- It's population is becoming more ethnically diverse

How can urban change create social opportunities in Bristol?

- **Culture** - Youthful population means there is a range of bars and nightclubs – The Colstan Hall has concerts and entertainment by major names in rock, pop and jazz
- **Sport** – Bristol has two professional soccer teams – City and Rovers and a rugby union team - all teams are developing their stadiums to provide a range of leisure and conference facilities and accommodation
- **Shopping** – The city centre had become outdated and people had begun shopping in the out of town retail park at Cribbs Causeway. Developments to encourage people to shop in the CBD include; pedetrianising the area, providing a more attractive shopping environment (new street furniture floral displays and landscaping and improving public transport into the centre e.g. park and ride. **Cabot Circus** a £200 million shopping centre was built in 2008, it also has a cinema and 250 apartments

Geography - Bristol

How can urban change create economic opportunities in Bristol?

- The major change in Bristol's industry has been the increased number of people working in high-tech companies. There are 50 microelectronic and silicon design businesses in Bristol. The following factors attract high-tech businesses to Bristol: a government grant of £100 million to become a super connected city with high broadband speeds, advanced research at the universities and an educated and skilled workforce.
- **Example** – Aardman Animations - based in Bristol. The studio has been well known for its films using stopmotion clay animation techniques e.g. Wallace and Gromit – its films have won an Oscar and many other award

How can urban change create environmental opportunities in Bristol?

- 2015 Bristol awarded **European Green Capital** with a plan to achieve the following by 2020, transport improvements, improved energy efficiency and development of renewable energy
- Bristol plans to develop an integrated transport system linking different forms of public transport within the city. The aim is to get people to travel using public transport instead of cars – reducing congestion and air pollution.
- The Rapid Transit Network consists of three bus routes from Temple Meads train station with the city's park and ride sites.
- **Urban greening** – 1/3 of Bristol's is open space and more than 90% of people love within 350m of parkland and waterways. Bristol has 8 nature reserves and 300 parks. Queen Square was once a dual carriage way but is now transformed into a cycle way with open space. Green initiatives include: 30% of city to be covered in trees.

How has urban change in Bristol created challenges?
Social and economic challenges:

- **Urban deprivation** – Filwood (south of Bristol) is in the top 10 % of the most socially deprived areas in the country. In 2018 a survey by Bristol City Council revealed that more than a third of people living in Filwood and over half the children were in very low-income households.
- Inequalities in **housing** – Housing in Filwood is split equally between owner occupied and those rented from the city council. Compared to Stoke Bishop in the north of Bristol where 81% of the housing is owner occupied. Most of the council houses in Filwood were built in the 1930s and are poorly insulated.
- Inequalities in **education** - In Filwood in 2013 only 36% of students got top grades at GCSE, including English and Maths compared to 94% in Stoke Bishop
- Inequalities in **health** – In Filwood death rates from cancer are higher than average and life expectancy is 78 years compared to 83 years in Stoke Bishop
- Inequalities in **employment** – Only 3% of people in Stoke Bishop are unemployed compared to 1/3 of people aged 16-24 in Filwood.

How has urban change in Bristol created challenges? Environmental challenge

Dereliction – Changes in the economy and industry in Bristol have led to many industrial buildings that are no longer being used becoming derelict. This is mainly in the inner city. When the port function moved downstream from the city many warehouses were abandoned and fell into decay.

Stokes Croft in Bristol's inner city became notorious for its derelict housing and abandoned properties and many empty houses have been taken over by squatters and the area has suffered from anti-social behaviour.

Solution - Bristol City Council has received lottery grants to help improve the poor economic activity and urban decay in the area. Artists wanted to improve the areas through public action and community art.

Geography - Bristol

How has urban change in Bristol created challenges?
Environmental challenges

- **Urban sprawl** – Urban sprawl has extended particularly to the north-west of the city. The new town of **Bradley Stoke** has extended the city to the north.

Solution - Between 2006 and 2013 only 6% of new housing developments were on greenfield land and by 2026 over 30,000 new homes are planned on brownfield sites. The green belt was set up to prevent urban sprawl on the rural-urban fringe and the merging of the cities Bath and Bristol. Towns to the north and south of the city, such as **Clevedon** has expanded to become **commuter settlements** so that people are able to travel from surrounding areas to work in the city.

- **Waste disposal** – The city produces half a million tonnes of waste per year. It is among the worst cities in the country in terms of the amount of food waste it creates.

Solutions - A range of strategies have been adopted to cope with the problem of waste disposal e.g. reducing the amount of waste that has to be sent to landfill and reducing the amount of waste generated per household by 15%. Bristol's population has increased by 9% since 2000 and the amount of household waste has reduced by 18% in the same period.

- **Atmospheric pollution** – Vehicle emissions are the main cause of air pollution in the city. Bristol is the most congested city in England and the main bus routes are often the most polluted. An estimated 200 people die in the city each year due to air pollution.

Solutions- Plans to reduce air quality include reducing speeds on motorways and residential areas and a smartphone app with information about public transport.

Named Example: The Temple Quarter Regeneration
Reasons why the area needed regeneration:

The Temple Quarter was very rundown. It gave a bad first impression to visitors, as it was the first part of the city seen by anyone driving from Wells or Bath. The Temple Quarter was developed as an industrial areas in 18th Century. The land was mainly disused and in a state of dereliction.

The main features of the project:

- New bridge built across the River Avon to the site of the former diesel depot – This was intended to give access to the New Bristol Arena (to be used for sporting events with up to 12,000 spectators) however the Arena is now being built outside of the city centre.
- Improved access in and around Bristol – Improvements to Temple Meads station to encourage more people to travel by train
- Improved road layout with links to the rapid transport network and the Bristol Bath cycle network
- Enterprise zone status – 240,000m2 of either new or refurbished buildings, creating offices, homes and shops. The target is to create 4000 jobs by 2020 and 17000 by 2037 e.g. **Brunel's engine shed** - A £1.7 million innovation centre is being created – home to high-tech, creative and low carbon sector companies.

Potential Exam Questions on Bristol

Outline one way that international migration has led to change in the character of a named UK city. (2)
Suggest why there are inequalities in health in urban areas. (4)
Suggest reasons for inequalities in education in urban areas in the UK (4)
Discuss the effects of urban sprawl on people and the environment. (6)
To what extent has urban change created environmental challenges in a UK city you have studied? (9)
To what extent has urban change created opportunities in a UK city you have studied? (9)


Religious
Studies

Religious Studies - Existence of God and revelation

Y10 - Existence of God and revelation

Design Argument

The world looks designed→therefore it must have a designer→this can only be God →therefore God must exist

- Paley: the watch analogy- you would expect a watch to be designed not made by chance
- Newton: the human thumb must have been designed *'…the thumb alone would convince me of God's existence'*
- F.R. Tennant- all the conditions on earth are right for human development

But others argue:

- Evolution happened by chance
- Why would God have designed a world with suffering and flaws such as earthquakes?
- The order in the universe is imposed by humans, not God

First Cause Argument (Thomas Aquinas)

Everything has a cause→ the universe must have a cause→ that cause must be uncaused→ this must be God who is eternal→ therefore God must exist

But some people argue:

Why doesn't God have a cause if everything else does?/The Big Bang caused the universe by chance/The universe has always existed and so doesn't need a cause

Arguments against the existence of God

Science: Atheists argue-

- There is no need to believe in God now we know the Big Bang started everything
- Genesis has been disproved by scientific theories

But Christians respond-

- Science just shows how God made things- Kepler 'science is the process of thinking God's thoughts after him'
- Science can't prove or disprove God, we need science and religion

Suffering: Problem of evil- if God is all loving and all powerful why is there evil? Either he is not powerful enough or not loving enough to stop it. So, some believe that suffering disproves God

But Christians respond:

- God gave humans freewill to choose good or evil
- *Adam and Eve disobeyed God* which led to suffering
- If there was no evil people could not show good qualities such as love

Argument from miracles-

Miracles can't be explained by science or nature so they are supernatural and must be performed by God

Some argue that miracles do happen:

- Christianity based on miracles of the *incarnation and resurrection*
- Jesus performed miracles e.g. *raising of Lazarus, calming the storm, healing the paralysed man*
- Many miracles have taken place and happen today e.g. healings (Lourdes)

But:

- Atheists say that miracles are just coincidences or that they have scientific explanations, but we don't know them
- Hume says it is unfair if God only worked miracles for some people

General revelation-

when God reveals himself in ways available to anyone

- Nature- creation shows what God is like: *'the heavens declare the glory of God'*
- Bible- *word of God* which teaches and comforts Christians
- Lives of Christians- these may show that God is working in them e.g. Mother Theresa
- Conscience- can be seen as the voice of God telling us what is right and wrong
- Worship- e.g. praying and Holy Communion may reveal God's presence

Special revelation-

when God gives an individual or a group and direct personal experience of himself

- Visions- e.g. *on the road to Damascus Paul saw a vision of Jesus*
- Dreams- e.g *Joseph was told he should not be afraid to marry Mary*
- Hearing God's call- e.g. *Jeremiah: 'Before you were born I set you apart'*
- Miracles- e.g. Jesus raised Lazarus from the dead: *'I am the resurrection and the life'*
- Prophecy – e.g. God told OT prophets what would happen

Importance: point to God's existence, show people how God wants them to live, can lead to becoming a Christian

However, atheists argue revelations can be explained by e.g. drugs, wishful thinking, mistake, mental illness, lying

Ideas of the divine

Muslims and Christians believe God is: omnipotent, omniscient, benevolent, personal, immanent and transcendent

Evidence that God is transcendent:

-God is creator and so outside creation: *'in the beginning God created the heavens and the earth'*

-Jesus said to pray '*our Father in heaven*'

-Evidence that God is immanent:

-humans can talk to God *'our Father'*

-Jesus lived on earth and revealed God

-Jesus sent the Holy Spirit to earth to help Christians

-Miracles and answered prayer

Spanish

Hartford Church of England High School

Spanish

El tiempo libre

Los verbos Iregulares	
Dar un paseo	To go for a walk
Practicar (el deporte)	To practise (sports)
Jugar al tenis	To play tennis
Jugar al fútbol	To play football
Jugar al baloncesto	To play basketball
Jugar al ajedrez	To play chess
Jugar a las cartas	To play cards
Hacer ejercicio	To do exercise
Hacer gimnasia	To do gymnastics
Hacer esqui	To do ski
Hacer atletismo	To do athletics
Hacer ciclismo	To do cycling
Hacer alpinismo	To do rock climbing
Hacer natación	To do swimming
Hacer vela	To do sailing
Hacer Piragüismo	To do canoeing
Tocar la guitarra	To play the guitar
Tocar el piano	To play the piano
Ir a pescar/ comprar	To fish / To go shopping
Ir a un concierto	To go to a concert
Ir a al cine	To go to the cinema
Ir al entrenamiento	To go to training
Salir a comer	To go out for dinner
Salir con mis amigos	To go out with friends

Ver un partido	To watch a match
Ver la televisión	To watch tv
Ver un programa de telerrealidad	To watch a reality tv programme
Ver una serie policíaca	To watch a police series
Ver una telenovela	To watch a soap
Ver una comedia	To watch a comedy
Ver un documental	To watch a documentary
Ver los dibujo animado	To watch cartoons
Ver las noticias	To watch the news
Ver una película de ciencia ficción	To watch a science fiction movie
Ver una película de miedo	To watch a horror movie
Ver una película de amor	To watch a romantic movie
Ver una película de risa	To watch a comedy

Irregular ver

Tener – to have (tengo, tienes, tiene, tenemos, tenéis, tienen)

Dar – to give (doy, das , da, damos, dais, dan)

Tocar –to play (toco, tocas,toca,tocamos,tocáis,tocan)

Ir – to go (voy, vas , va ,vamos, vais van)

Salir – to go out (salgo, sales, sale, salimos, salís, salen)

Ver – to see (veo, ves, ve, vemos, veis, ven)

Jugar – to play (juego, juegas, juega, jugamos, jugáis, juegan)

Hacer – to do (hago, haces, hace, hacemos , haceis , hacen)

Los verbos regulares	
Cantar en un coro	To sign in a choir
Nadar	To swim
Escuchar música clásica	To listen to classical music
Escuchar música pop/rock	To listen to pop/rock music
Escuchar canciones / letras	To listen to songs/lyrics
Escuchar a mi cantante favorito	To listen to my favourite singer
Patinar	To skate
Leer una revista	To read a magazine
Leer un periodico	To read a newspaper
Leer una novela	To read a novel
Participar en un torneo	To take part in a tournament
Escuchar música	To listen to music
Chatear por internet	To chat for internet
Descansar	To rest
Ganar/ Perder	To win/ To lose
Empatar	To draw
Marcar un gol	To score a goal
Entrenar	To train
Mantenerse en forma	To keep fit
Bailar	To dance
Aprender algo nuevo	To learn something news

Common mistakes to avoid: How to say

'**on** Friday' – el Viernes

'on Sundays – los domingos

Free - libre - available

Free – gratis – no cost

Tiempo has 2 meanings:

Tiempo libre – free **time**

El tiempo – **the weather**

Hartford Church of England High School

Spanish

El tiempo libre

Time Phrases

Una vez a la semana	once a week
Dos veces a la semana	twice a week
Siempre	always
Nunca	never
Todos los días	everyday
Muchas veces	often
A menudo	often
A veces	sometimes
Cada semana	every week
Por lo general	generally
Todas las tardes	every afternoon.
De vez en cuando	from time to time
Normalmente	normally
Cada quince días	every fotnight

Tenses

Present

	AR	ER	IR
I	-o	-o	-o
You	-as	-as	-as
He/she	-a	-a	-a
We	-amos	-amos	-amos
You all	-ais	-ais	-ais
They	-an	-an	-an

Past			Fut
	AR	ER / IR	Ar/Er/Ir
I	-é	-í	Voy a +Inf
You	-aste	-iste	Vas a +Inf
He/she	-ó	-ió	Va a +Inf
We	-amos	-imos	Vamos a +inf
You all	-asteis	-isteis	Vais a
They	-aron	-ieron	Van a +Inf

Opinions

Se me da bien/mal ---- I am good/bad at

No se me da bien ---- I am not good at

Me gusta(n) ---- I like

No me gusta nada ---- I do not like at all

Me encanta(n) ---- I love

Me chifla ---- I really love

Me mola ----- I really love

No aguanto ---- I cannot stand

No soporto ---- I cannot stand

Me parece que --- I think that

Reasons

burrido	boring
divertido	fun/ interesante
interesting	interesting
emocionante	exciting
sano	healthy
malsano	unhealthy
fácil /sencillo	easy
difícil /duro	hard
seguro	safe
peligroso	dangerous
caro	expensive
barato	cheap
útil	useful
inútil	useless
estresante	stressful
relajante	relaxing
vale la pena	it is worth it
una pérdida de tiempo	a waste of time
me ayuda a relajarde	it helps me to relax

me ayuda a olvidarme de los problemas de la vida moderna (it helps me to forget the problems of modern life)

Impress the examiner: Using 2 verbs together

Note how the second is in the infinitive.
Voy a cocinar – I am going to cook.
Espero salir – I hope to go out
Tengo que ir a clase – I have to go to class.
Pienso ver – I'm thinking of watching.
Me gustaría ir al cine - I would like to go to the cinema.

Impress the examiner:

¡Qué guay!	How amazing!
¡Qué rollo!	How boring!

Impress the examiner with top connectives:

Así que	So that
Por eso	That is why
Por lo tanto	Therefore

Impress the examiner with negatives:

Jamás	Never
Tampoco	Neither/ either
Ya no	No more/longer
Nada	Nothing
Nadie	Nobody
Ninguno	No one

Hartford Church of England High School

Spanish

Knowledge organiser: Los Festivales y Las Costumbres

Los verbos	
Disfrutar	To enjoy
Ir de fiesta	To go to a party
Ir de marcha	To go out
Cantar	To sing
Saltar	To jump
Dormir	To sleep
Montar la tienda	To set up the tent
Empezar	To start
Llegar	To arrive
Ir	To go
Celebrar	To celebrate
Lanzar	To throw
Organizar	To organise
Llenar	To fill
Construir	To build
Quemar	To burn
Disparar	To set/ To shoot
Correr	To run
Brindar con champan	To toast
Cantar villancicos	To sing Christmas Carols
Dar regalos	To give presents
Recibir regalos	To receive presents
Disfrazarse	To get dressed up
Divertirse	To enjoy oneself
Disfrutar	To enjoy

Los adjetivos	
Emocionante	To enjoy
Popular	Popular
Entretenido	Entertaining
Impresionante	Impressive
Chulo	Great/Cool
Hermoso	Pretty
Único	Unique
Fascinante	Fascinating
Genial	Great/wonderful

Las opinions en el pasado	
Me gustó	I liked
Me encantó	I loved
Lo pasé bien/mal	I had a good time
Disfruté	I enjoyed myself
A mi madre le gusto	My mum liked it
Mi padre disfrutó	My dad enjoyed himself

Impress the examiner.

Costumbres típicas de España

- Desayunar poco
- Comer/almorzar mucho y tarde
- Cenar poco y tarde
- Descansar o dormir la siesta
- Dormir menos por la noche
- Acostarse tarde
- Salir a la calle por la tarde
- Tomar tapas
- No llevar uniforme al colegio
- Disfrutar del buen tiempo
- Celebrar el cumpleañosos y el santo

Common mistakes to avoid:

The past tense of IR and SER is the SAME so fui means – I was AND I went.

It is also usual to get FUI (I went/was mixed up with FUE he she it went / was)

Grammar - SER and IR

Be careful in the preterite.

SER	Spanish	IR
I was	Fui	I went
You were	Fuiste	You went
He/ she /it / you formal was	Fue	He / she /it/ you fml went
We were	Fuimos	We went
Youse were	Fuisteis	Youse went
They were	fueron	They went

Other irregular verbs

In the preterite tense

Tener	Hacer
Tuve	Hice
Tuviste	Hiciste
Tuvo	Hizo
Tuvimos	Hicimos
Tuvisteis	Hicisteis
tuvieron	Hicieron

Knowledge organiser: Los Festivales y Las Costumbres

Los sustantivos			
La costumbre	The costume	La fiesta	Party
La Pascua	Easter	El festival	Festival
La Tomatina	Tomato Fight	Muerto	Dead
Las Fallas	Las Fallas	Disfraz	Fancy dress
San Fermín	San Fermin	Altar	Altar
Las corridas de toros	Bull fighting	Una flores	Flowers
El encierro	Bull run	Fuegos artificiales	Fireworks
El Día de los Muertos	The Day of the Dead	Petardos	Fireworks (small)
El Carnaval	Carnival	Una hoguera	Bonfire
La Navidad	Christmas	Una figura	A figure
La Nochebuena	Christmas Eve	Un plato típico	Typical dish
Noche vieja	New Year's Eve	Un festival de música	Un festival de música
Año Nuevo	New Year	El cantante	Singer
La Feria de Abril	April Fair	El grupo	Group
El árbol de navidad	Christmas tree	Las letras	lyrics
una estrella	A star	Las coreografías	choregraphy
Papa Noel	Father Christmas	El comportamiento	Behaviour
Los 3 Reyes Magos	Three Wise Men	El estilo de vestir	Dress style
Calavera	Skull	Su voz	His/her voice
El belén	Nativity	Desfile	Porcesions
Regalos	Present/ Gift	Sus canciones	His/her songs
Vela	Candle	La tienda de campaña	Tent
El diablo	The devil	El saco de dormir	Sleeping bag
La Reina	Queen	La pulsera	Bracelet

Impress the Examiner- Key Spanish Festivals
http://www.huffingtonpost.es/2014/07/05/mejores--fiestas-populares-espana_n_5558017.html

Las Fallas – Valencia
San Fermín – Pamplona Tomatina – Buñol
Moros y Cristianos – Alicante
El Colacho – Burgos
Feria de Abril – Sevilla
Carnaval – Sta Cruz de Tenerife
El descenso de la Sella – Ribadesella
San Miguel – Lleida
Semana Santa – Valladolid

IT

Hartford Church of England High School

IT

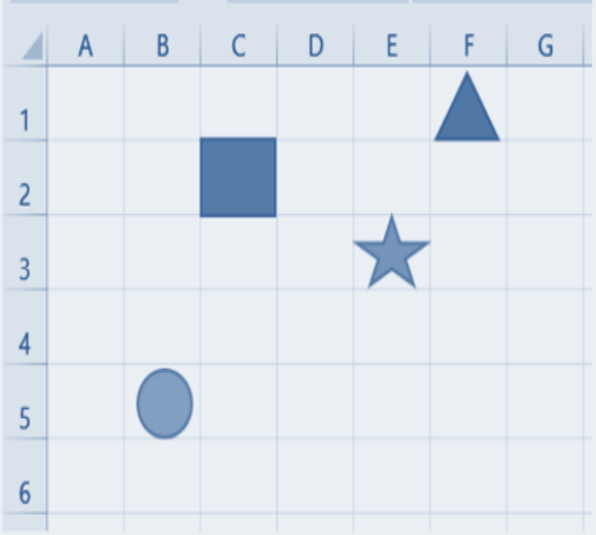
Advantages of using Spreadsheets:

- They can simulate real life events safely.
- When actioned correctly, formula will automatically update the result of a calculation when data in amended.
- Data can be presented in the form of charts and graphs.
- You can carry out "what if?" investigations. For example, the grocer could increase his prices to see the effect on sales and the builder could increase his hourly charge to see the effect on his daily total.

Knowing your Graphs

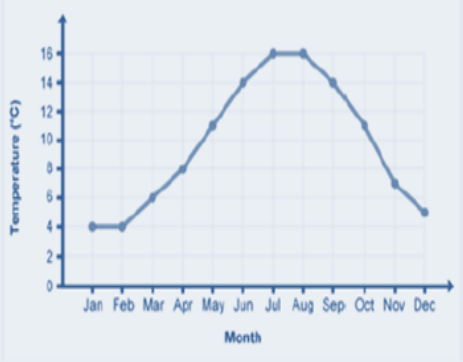
Line Graph	To show a change over time.
Pie Chart	To show the individual parts that make up a whole.
Bar Chart	To compare things that aren't directly related.
Scatter Graph	To look for a pattern or link between two sets of data.

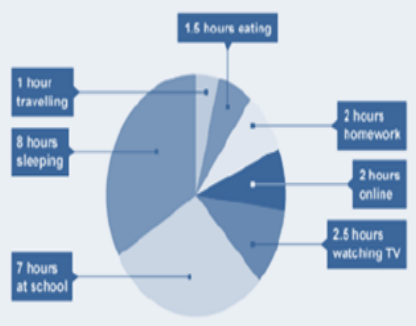
Cell Referencing

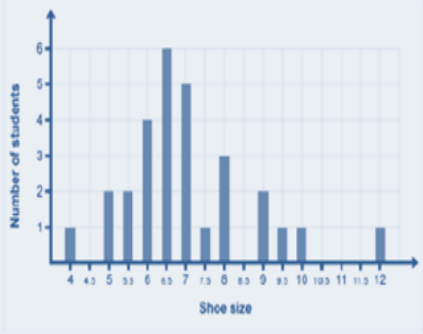


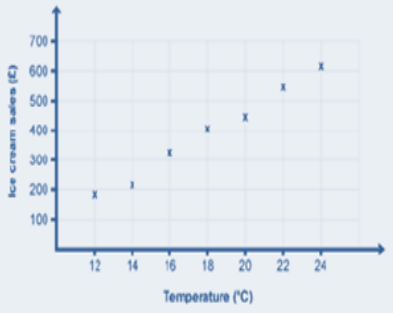
Identify the cells the following shapes are located:

- Square – C2
- Circle – B5
- Star – E3
- Triangle – F1









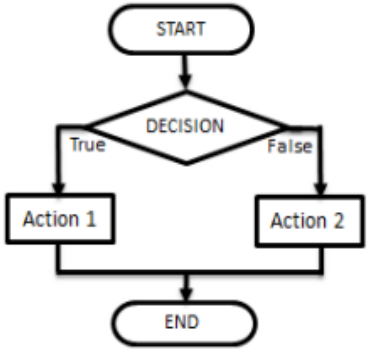

Computer
Science

Creative Science - Algorithms

COMPUTATIONAL THINKING

Abstraction	•Focussing on just the important details of a problem
Decomposition	•Breaking a problem down into smaller parts so that it is easier to solve
Algorithmic thinking	•creating a step by step solution to a problem

FLOWCHART



PSEUDOCODE

```
START
IF the Decision = TRUE THEN:
   Perform Action 1
ELSE
   Perform Action 2
ENDIF
END
```

- Universal language, planning phase before actual coding in for e.g. python
- Work out where you need inputs, outputs, decisions, loops and variables.

SEARCHING ALGORITHMS

To find an item in a list, computers need to use a searching algorithm. A linear search and binary search are both examples of sorting algorithms.

Linear Search: Checks each item in the list one by one until it finds what it is looking for
+ Simple, list doesn't need to be ordered
- Not efficient, takes time with lots of data

Binary Search: Finds the middle item in an ordered list by doing (n+1)/2. IF the middle item is what it is searching for it stops. If not, it compares the item you are searching for to the middle item so that it knows whether to look in the first half or second half of the list. Then it repeats these steps until the item is found
+ More efficient than a linear search
- Only works on an ordered list, complex to program

SORTING ALGORITHMS

Sorting algorithms sort items into an ordered list.

Bubble Sort: Checks the first two items in a list, swaps them if they are in the wrong order and then moves onto the next two items and repeats the process. Once it has passed through the list once it goes through again until none of the items need swapping. + Simple. - Takes a long time

Merge Sort: Finds the middle item (n+1)/2 and splits the list in half. Repeats this step until the list is split into individual items (sub-lists). It them merges (joins) the sublists in pairs. Each time the sublists are paired they are sorted into the correct order. + Efficient - Slow

Insertion Sort: Looks at the second item in a list and compares it to the items that are in front of it, then inserts it into the right place. It then moves to the next item in the list and repeats these steps. + Quick for sorting small lists - slow with long lists


Business

Business

Market Research

Primary market research	First hand research that is specific to businesses needs as they design and undertake it themselves.
Secondary market research	Second hand research where a business uses research found from someone else.
Types of primary research	Survey, questionnaire, focus group, observation
Types of secondary research	Internet, market reports, government reports.
Qualitative Research	research with lots of depth and opinion. It is gained through asking open questions.
Quantitative Research	statistical research with quantifiable answers. This is gained through asking closed questions.

Segmentation

Market Segmentation is splitting up the mass market into different parts so businesses can target and meet the needs of a small group of people with the same wants and needs.

Location	This is where a business will target customers based on the area in which they are/live.
Demographics	Targeting a group of the population who have similar characteristics
Age	Meeting the needs of customers within a specific age group For example Children's toys
Lifestyle	Targeting and meeting needs of customers who live in a particular way. For example Vegans choose products through lifestyle choice.
Income	Targeting customers based on how much they earn. For example shops who sell products at a lower price for people on a lower income.

By targeting a specific group of people it ensures those needs are identified and successfully met.

Market Maps

Benefits	Drawbacks
• Easy to interpret • Shows gaps in the market • Can understand target market	• Doesn't consider external factors • Can be difficult if business has multiple products

Customer Needs

A customer need is what the customer wants from a specific product or service. By ensuring customer needs are met, it promotes business survival and increase in sales

Price-	The amount charged to purchase the good/service must be justified.
Quality-	Ensuring the product is made well and is fit for purpose
Choice-	Allowing customers to choose from variety
Convenience-	Allowing customers to purchase a product quickly and efficiently

Competition

Competitive market is where several businesses operate, offering the same or similar products/services.

Benefits of Competition

- Promotes fair prices as businesses will compete for sales, meaning customers wont be overcharged.
- Allows a variety of choice for customers to select from.
- Ensures products are constantly being updated to ensure quality and reliability.

Art

Art - Nature

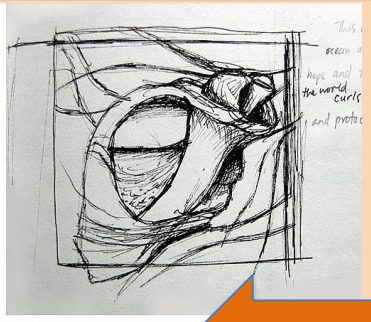
During Half term 1 and 2 you will be exploring the theme of Nature. You need to show an understanding of the GCSE assessment objectives.

Photography

Photography is a form of Recording and should be used whenever possible to explore **visual elements**. Tone, Texture, Shape, Form, Viewpoints.

Techniques – crop, filter, enlarge, zoom.

Deliberate Practice – Take a series of photos of food, consider how you can apply the techniques above.



Drawing to research and record

Deliberate Practice – Produce a range of drawings in your sketchbook. Make some drawings from first hand observation and some from your photographs.

Consider Tone, Form, Texture, Line, shape.

Key vocabulary

Organic, spiky, rough, texture, representational, flowing, irregular, shadow, recording, observed.

Artist Research

Explore the work of artists who have used Nature and Natural forms as a source of inspiration. Creatively present your research in your sketchbook.

Artists to consider

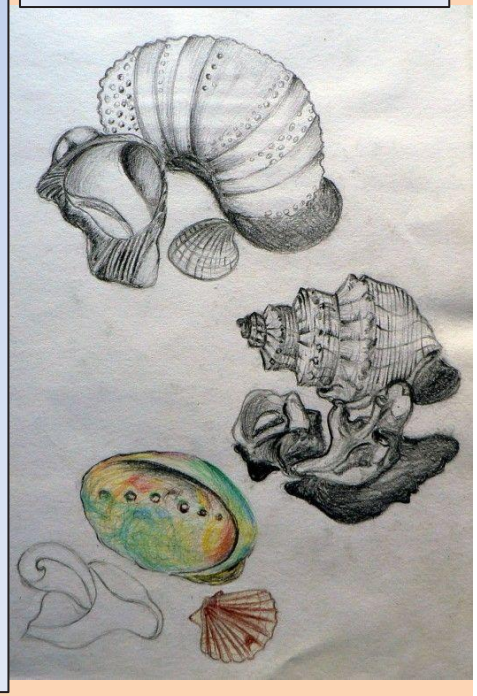
Karl Blossfeldt
Amira Gale
Georgia O Keefe
Marcia Baldwin
Martin La Spina
Ernst Haeckel

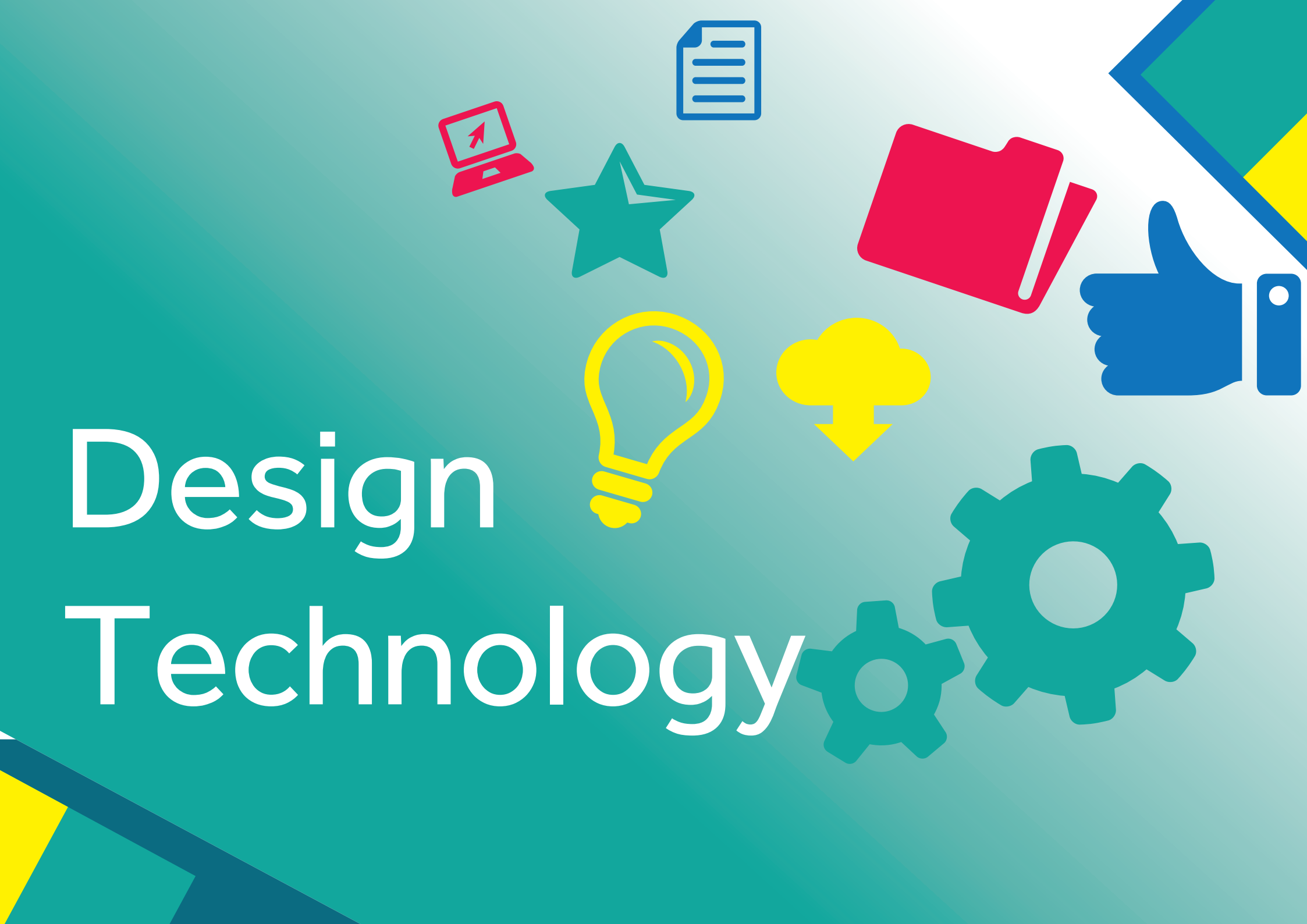
Art styles to consider

Art Nouveau
Surrealism

Deliberate Practice

Produce a google slide on 2 of your favourite artists. You can choose from the list above or find your own.




Design
Technology

Hartford Church of England High School

Design Technology

Objectives

- Know and understand how timbers and boards are selected and processed for commercial products
- Learn how materials are cut, shaped and formed to a tolerance
- Learn about the preparation and application of treatments and finishes to enhance functional and aesthetic properties

Engineered wood

- Manufactured or engineered wood has many advantages over solid wood
  - May be mixed with glues to give greater strength and stability
  - Ideal for use in construction, industrial and domestic use
  - Efficient in its use of mixed materials and utilising waste wood
  - It can be made in a large sheets not limited by the diameter of a tree trunk

Flat-pack furniture

- Manufactured boards are well suited to self-assembly products
  - They are generally less expensive than hand-made items
  - Arrives boxed making it easier to store and transport
  - Relatively straightforward to assemble with a basic tool kit
  - What properties of manufactured board make it suitable for flat-pack products?
  - Why do you think it may be less aesthetically appealing?

Commercial manufacturing

- Mass produced timber components are produ using CNC machinery
  - This enables large quantities of equal-sized parts or products to be produced
  - Templates can be saved and reused to help minimise waste
  - Screw holes, slots and patterns can be cut in one process
  - What are the benefits to the manufacturer of minimising waste?
  - How could they dispose of the waste responsibly?

Commercial routing

- CNC machinery can cut, drill, shape, mill and profile manufactured or natural timbers
  - Screw holes, slots and patterns can all be cut in one process
  - Machines can accommodate big sheets of material
  - Machines work quickly and efficiently enabling a product to get to market swiftly
  - What other advantages does CNC routing offer over hand cutting?

Commercial turning

- CNC wood lathes produce cylindrical components
  - Once programmed they are very effective at producing complex shapes and spirals
  - Ideal for repeat production
  - Lathes can accept large and long pieces of material
  - What disadvantages would the introduction of CNC machinery present to a skilled workforce?

Mechanisation and automation

- Automated machinery has changed the way industry manufactures timber based products
  - Improvements in manufacturing methods have been embraced by designers
  - Stringent quality control methods have increased consistency and accuracy
  - Increased availability of manufactured boards means products can be batch and mass produced
- Discuss the differences between 'mechanisation' and 'automation'

Quality Control – 'QC'

- The process where products are checked to ensure they meet the design specification
- They should also:
  - function correctly
  - be free of defects
  - be consistent and accurate
  - meet set size tolerances

Tolerance

- The total amount a specific dimension or property is permitted to vary
  - This can apply to hole depth, length, angle, thickness, weight and elasticity
  - A gauge can be inserted into a gap or hole to check if the sizes fall within tolerance
  - If parts do not fit within the specified tolerances they are discarded or recycled

Surface treatments and finishes

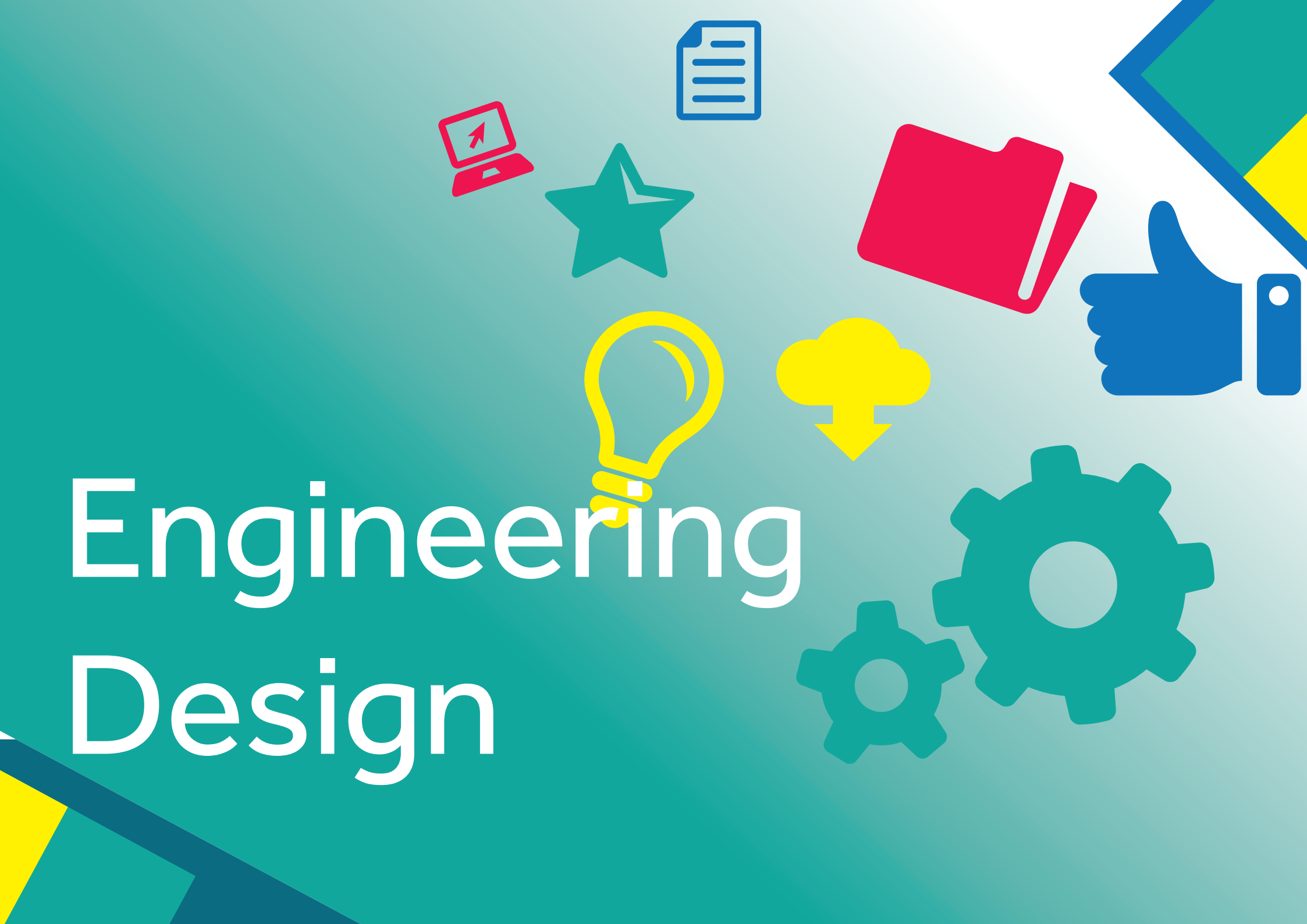
- Wood can be protected and visually enhanced using:
  - Preservative
  - Wax
  - Oil
  - Paint
  - Stain
  - Varnish
- Finishes can be applied by brushing, rubbing or spraying

Wood preservation

- Treating timber can help extend its life for decades
- Tanalising is the process in which timber is immersed in a preservative
  - Hydraulic pressure forces the treatment deep into the timber
  - Helps delay the rotting process
  - Protects against insect and fungal attack

Environmental impacts

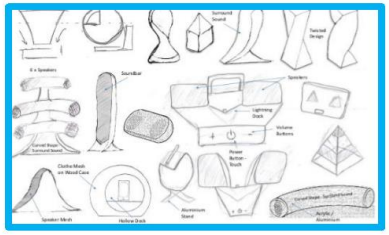
- Traditional paints and finishes can have harmful effects on the environment
  - Oil or solvent based products offer long lasting finishes, but contain high levels of VOCs – Volatile Organic Compounds
  - Water based products are kinder to the environment
  - Paint can be made from recycled latex and even milk

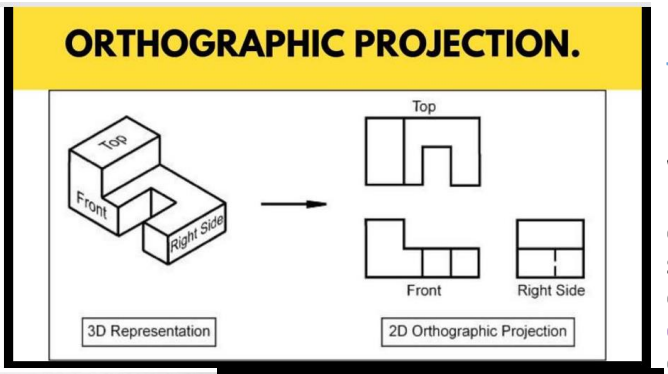

Engineering
Design

Hartford Church of England High School

Engineering Design

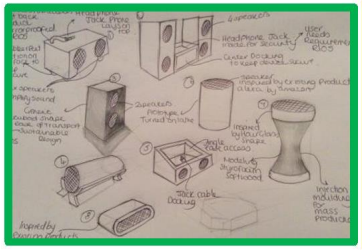
R107: OCR Engineering design
Designing and developing Ideas

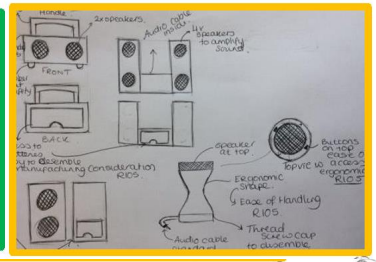


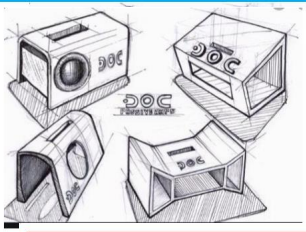


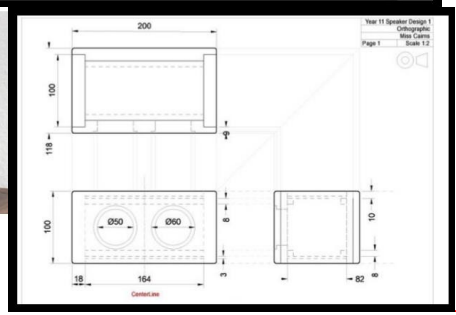
Key Words:

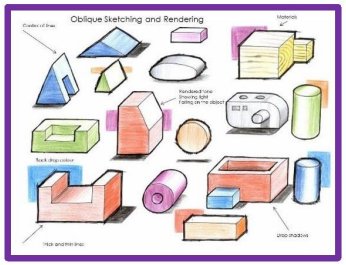
- Thumbnail sketch
- Initial idea
- Developed idea
- Working drawing
- Dimension
- CAD
- Standardised
- Component
- Oblique
- One Point Perspective
- Two point perspective
- Orographic Projection
- Freehand
- Thick and Thin lines
- Rendering
- Annotation
- Two Dimensions
- Three Dimensions
- Exploded View

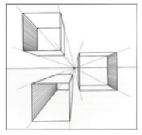


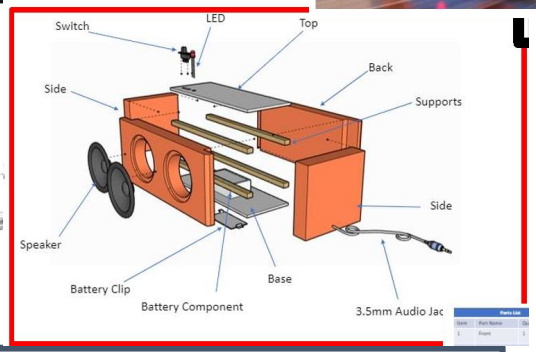


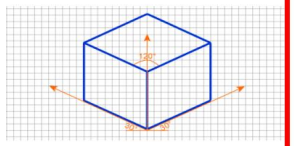


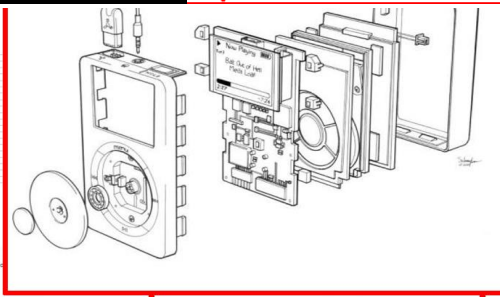


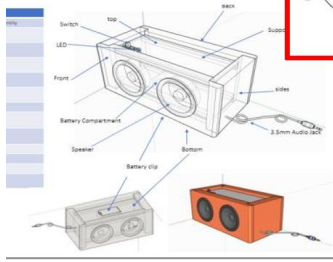


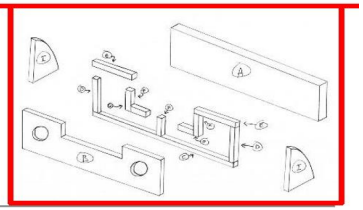




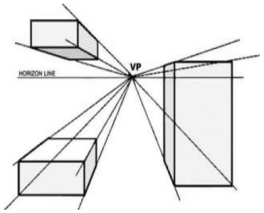




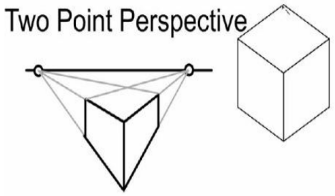


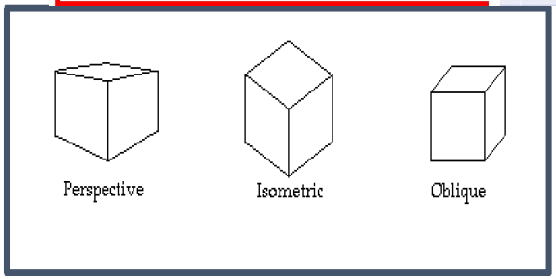


One Point Perspective



Two Point Perspective





Engineering Design

Hartford Church of England High School

Lo1 The Design Cycle

The design cycle is a recognised way to create an Engineered Product. It enables checking at every stage of the process

I – IDENTIFY

Checking what has been asked of you, what the client has asked for and researching around the problem to better understand the situation

Brief / Research / Process planning

D – DESIGN

The design phase involves creating a set of design rules based on the IDENTIFY section then creating designs (drawing or cad, 2d or 3d) and planning how it would be made

Specification / Design / Manufacturing Plans

O – OPTIMISE

The optimise stage is making models to ensure the plans and designs will work in making. Usually this involves prototyping a one off model and testing the making process you have come up with

Prototype / Error Proofing

V – VALIDATE

The validate phase is your evaluation stage, you have to test the product then comment on how effective it was

Test / Evaluate

Clients & Customers

NEEDS OF THE CLIENT

There will be some non-negotiables that the client needs to see involved in the design

Corporate Branding – e.g. what colours or logos do they use

Target Audience – who are the company focused on already

DISCUSSION BETWEEN CLIENT AND DESIGNER

The discussion meeting is the engineers chance to explore the brief and work out what the client requires.

What is possible – in terms of cost or technologies

What can be done within budget

Essential features – what the product MUST do/ have

Desirable Features - what the product COULD do/ have

Timeframes – how long is available to design and develop

Investigating the design context

There are areas that can be researched to find out more about the product requirements:

-Focus groups – talking to the likely customer

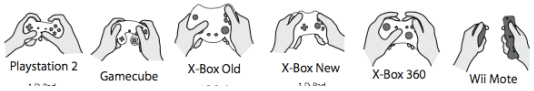
-Surveys – getting general information from the pubic

- Needs of target market – a product that fills a gap

-Changing consumer trends – a "must have" item

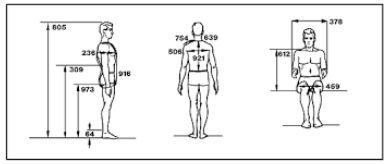
Lo2 Specification Requirements

– aesthetics – how they might require it to look



– ergonomics – suitability for human sizes e.g. hand size, height, weight, finger length

– anthropometrics – Physical sizes/ measurements recorded and used to deign ergonomic products



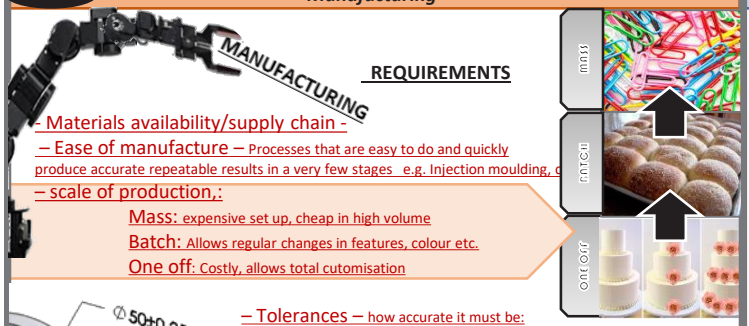
-Function – the purpose of a product e.g. a television displays programmes

-Features – the additions that make the product unique e.g. remote, controls,etc.

Engineering CAMNAT

Y10 Engineering KO R105

Lo2 Manufacturing



REQUIREMENTS

- Materials availability/supply chain -

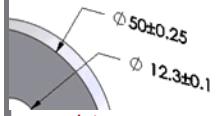
– Ease of manufacture – Processes that are easy to do and quickly produce accurate repeatable results in a very few stages e.g. Injection moulding, c

– scale of production,:

Mass: expensive set up, cheap in high volume

Batch: Allows regular changes in features, colour etc.

One off: Costly, allows total cutomisation



– Tolerances – how accurate it must be:

High: can be innacurate, less wasted products, less accurate mchines

Low: Lot of wasted products, expensive machinery, very accurate

– maintenance – how easy it is to maintain/repair

EASE OF MANUFACTURE

Specification points covering how easy it needs to be to make and assemble:

Standard components – using pre made components e.g. screws

pre-manufactured components- using premade parts e.g. speakers

design for manufacturing assembly (DFMA) – Less stages, less parts, standard components

design for disassembly –to repair or if it must be recycled or reused

manufacturing processes – If a certain process must be used; injection moulding is a popular choice as it is repeatable, acc

Regulations

REGULATIONS

- Copyright – Protecting a piece of creative work, eg a drawing by LAW

– patents – a protected design IDEA by LAW

– registered designs &

– trademarks – images/logos associated with the company protected BY LAW

SAFEGUARDS

– British Standards – Are guides to ensure QUALITY

– European Conformity (EC) – are guides to ensure SAFETY

Vs

Iconic Products

INSPIRATIONAL / ICONIC PRODUCTS

Some products are so popular they set an expectation. E.g. the minimalist design and easy use of the Ipod influenced the design of many other electronic gadgets.

Lo2 Sustainability

SUSTAINABLE DESIGN

Environmental considerations about the products effect on the environment. There is also pressure to be ethical and socially responsible

Renewable energy sources – made products cost resources, energy and pollution

Materials that are replaceable – materials that are plentiful/materials that regrow or replenish

Recycled- Using materials from reclaimed sources

Recyclable – Enabling a product to be recyclable – through material choice or disassembly

LIFE CYCLE ANALYSIS

Product life cycle affects how well a product is designed and how long it is required to work.

Lifespan – how long a product is intended to be used

Lifecycle – including what happens to it afterwards

Planned Obsolescence – A product designed on purpose to become outdated or unusable after time

New Technologies

Market Pull – a need or gap needs filling – the customer wants something new e.g. longer battery life on mobile phones

Technological Push – new technologies allow new ways of doing something – e.g. facial recognition or AR

IMPROVEMENTS IN MATERIALS

Engineering often creates new materials that create opportunities for better products. E.g. Recently carbon fibre has offered better products in some areas.

NEW PRODUCTION PROCESSES

Engineering often creates new ways of making that allow a product to be better or made cheaper. E.g. Recently 3D printing has created new opportunities.

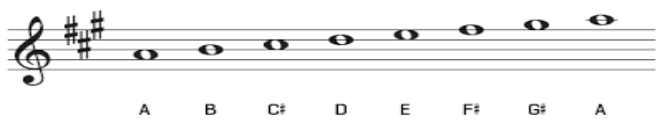
Music

Music - Component One Blues

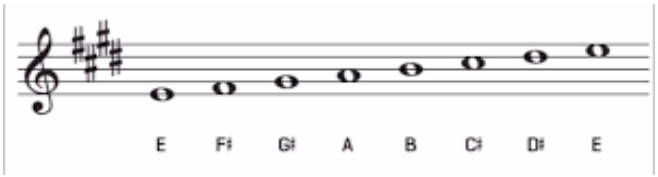
Harmony/structure: Typical 12 bar blues chord sequence

I	I	I^7	I^7
IV^7	IV^7	I^7	I^7
V^7	IV^7	I^7	V^7 Or I

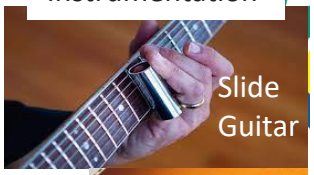
A Major Scale

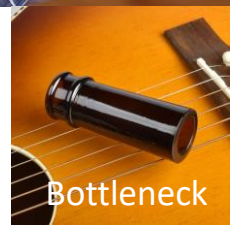


E Major Scale



Instrumentation

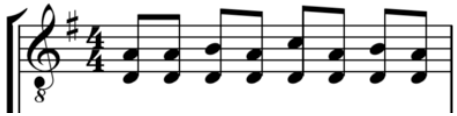




Harmonica

The most common keys in Delta blues guitar are **E major and A major**, which are both easily accessible in standard guitar tuning. Typically though, open guitar tunings are utilized, because they make slide guitar playing easier to execute.

Rhythm: not what it seems as the rhythm is swung.



Timbre: The blues has a distinct **melancholic** tone, which is achieved through vocal techniques such as **melisma**, rhythmic techniques such as syncopation, and instrumental techniques such as “choking” guitar strings on the neck or applying a metal slide to the guitar strings to create a whining voicelike sound.

Structure of lyrics – usually solo voice

Look it you darling, what do you want me to do
Look it ya darling, what do you want me to do
I've done all I could honey
Just don't get along with you

Now look it here baby, please don't dog me round
Look it here honey, please don't you dog me round
Mm I'm going to leave south end of town

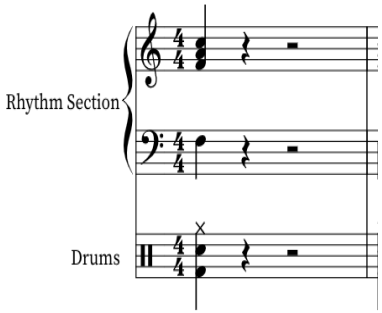
MELODY: Use of melodic phrases on the guitar to respond to the voice in an improvised call-and-response pattern, and a reliance on vamps. Melody is improvised around the chords. Improvised notes: 1, flattened third, fourth, fifth, flattened 7^{th} (pentatonic scale)

Music - Component One Rockn' Roll

Harmony/structure – recognise this?

I	I	I	I
IV	IV	I	I
V	IV	I	V Or I

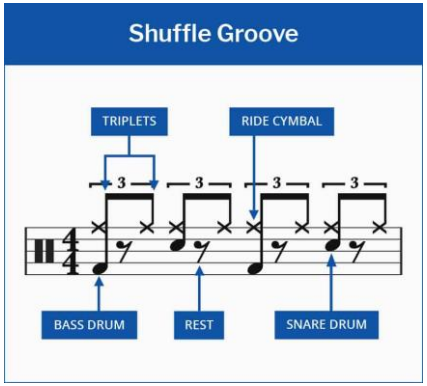
Bass: each note of the chord is played separately to create a **walking bass**



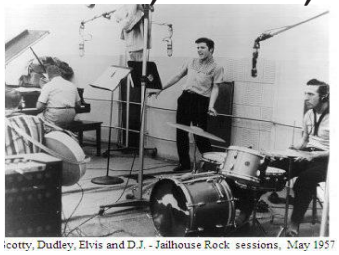
Texture: in some verses the rhythm is 'stopped' with all parts playing an accent on the 1st beat of the bar.

Melody: short phrases, instrumental improvisation around pentatonic scale

Rhythm

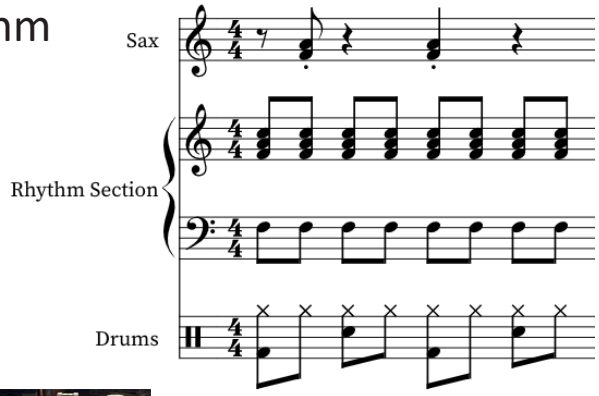


Structure also strophic: Intro, verse, chorus, bridge, verse, chorus, outro.


cotty, Dudley, Elvis and D.J. - Jailhouse Rock sessions, May 1957

Recorded on magnetic tape recorders most likely three tracks at a time. Distance from the mic was very important to achieve balance.

Horn stabs – whilst all parts play a shuffle groove the saxophones play staccato stabs to emphasise the rhythm



Instrumentation

Sometimes saxophone too

Music - Component One Britpop

Tonality: can be major or minor

Harmonies:

- Major
- Minor
- Suspended 4th
- Inverted chord

Texture: melodic line accompanied by instruments within the band. Accompaniment is mainly chordal (homophonic)

Guitar: Acoustic/electric played **rhythm** (chords) and **lead** (riffs) with effects such as **distortion/overdrive, palm muting, hammer ons, pitch bending.**
Vocals: usually a **solo** voice, catchy lyrics, **harmonies** in chorus. Lyrics usually in **1st person** and used **regional accents**
Drum Kit: Played a strong **4/4 rhythm**. Lots of **fills** and sometimes a drum solo.
Bass Guitar
Electric bass guitar, usually played the **root note** of the chord using **interesting rhythms**.
Piano/Keyboard: Would play **chords/ rhythms**. Sometimes **riffs**. Sometimes played the introduction of the song.

An example of a typical structure

Intro
Verse
Chorus
Mid 8
Verse
Chorus
Outro

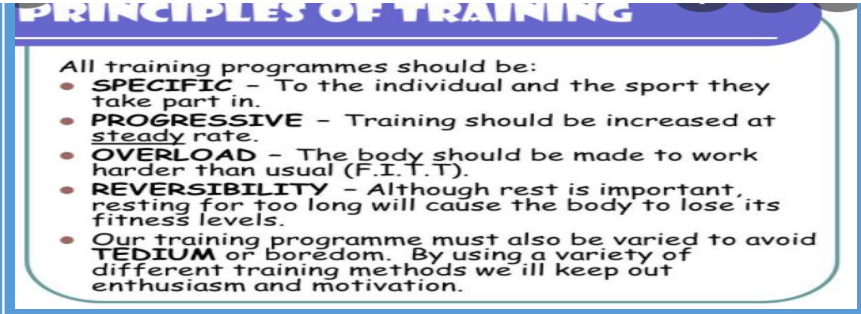
Awight geeza Britpop is common for memorable guitar riffs and iconic hooks

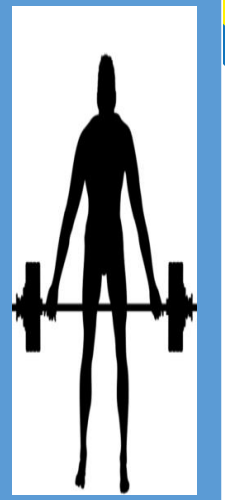
Sport

Sport - Btec Sport Component 1

COMPONENTS OF FITNESS

- AGILITY – To change direction quickly with control.
- BALANCE – Maintaining centre of gravity over a base of support.
- CO-ORDINATION – Flow of movements to perform motor task effectively.
- REACTION TIME – Responding to stimulus and initiation of response.
- AEROBIC ENDURANCE – Cardio-respiratory system working for long periods of time supplying oxygen and nutrients to working muscles.
- MUSCULAR ENDURANCE – Muscle is able to contract over periods of time against a light to moderate exercise rate.
- FLEXIBILITY – The range of motion around a joint.
- SPEED – Distance divided by the time taken
- MUSCULAR STRENGTH – Maximum force that can be generated by a muscle or muscle group.
- BODY COMPOSITION – Ratio of fat mass in the body compared to the % of fat free mass found as muscle.

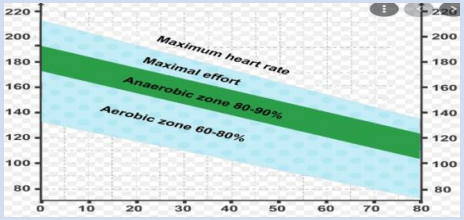


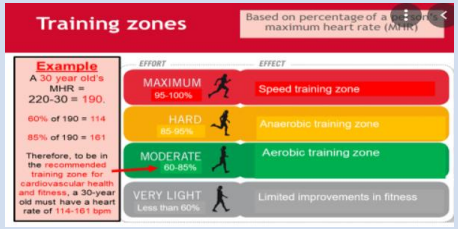


EXERCISE INTENSITY

Heart rate max

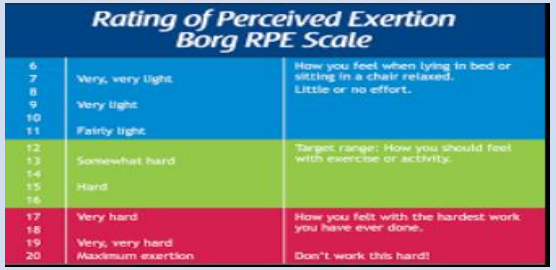
- Measure heart rate by measuring beats per minute.
- Max Heart Rate is calculate 220 – AGE
- Then work out 60% and 80% threshold and apply the recommended training zones to the athletes.





THE BORG SCALE

- Rate of Perceived Exertion, ranges from 6 to 20.
- Athletes choose a stage in which they feel they are working at. To work out HR multiply by 10.



Dance

Tech Award Dance Component 1 - Ghost Dances

Factfile

Choreographer; Christopher Bruce
Company; Various, including Rambert Dance Company
First performance; 3 July 1981
Dance Style; A blend of contemporary (Graham-influenced)
Choreographic style; Thematic and episodic with narrative elements. Strong Characterisation.
Theme; Political oppression in Chile
Starting point; The music and South American Rituals
Structure; Seven sections. Each characterised by a different piece of music or song
Dancers; Five women and six men
Accompaniment; South American songs and folk tunes by Inti-illamani (arranged by Nicholas Mojsiejenko) and wind effects.
Costume; Belinda Scarlett
Ghosts wear wigs and rags and have skull-like masks and bodies painted to suggest bones and muscles. The Dead wear gender-specific, everyday clothes suggesting different walks of life, each wears a unique costume.
Lighting- Nick Chelton
Gloomy and shadowy, side lighting highlights the ghosts. Brighter for folk-type dances performed by the dead. Light changes signify deaths.
Set – Christopher Bruce
The painted backdrop represents a rocky plain and a cave opening. In the distance there is water and mountains. There are rock-like structures on stage.
Staging – Proscenium

'I want people to be moved and feel something for these people. They may not be able to do much, but public opinion in the end means something, and that is a way that I, as an artist, can do my bit for humanity' **Christopher Bruce**
https://www.rambert.org.uk/explore/news-and-blog/news/story-i-wanted-tell-christopher-bruce-ghost-dances/

Meet the choreographer

Christopher Bruce was born on the 3rd October 1945 in Leicestershire. He is a famous British performer and choreographer.
He was Artistic Director of the Rambert Dance Company until 2002.

Bruce was appointed a CBE for a lifetime's service to dance because he was one of Britain's leading choreographers

Bruce often creates an impressive work by mixing the modern dance and classical ballet in his performance

In 1989, he became a resident choreographer for Houston Ballet.

He often used popular music as the background of his performance. He chose Rolling Stones and Bob Dylan

There are various productions that Bruce made. Those included 'Rooster' (1991), 'Swansong' (1987), 'Ghost Dances' (1981), 'Cruel Garden' (1977), Sergeant Early's Dream, and Moonshine.

What's it about?

GHOST DANCES IS A WORK THAT – AS MUCH AS ANY ARTISTIC CREATION CAN – ACHIEVES THE REMARKABLE AND TENDER-HEARTED FEAT OF GIVING A VOICE TO THE DEAD.

MADE BY CHRISTOPHER BRUCE FOR RAMBERT IN 1981, IT WAS INSPIRED BY BRUCE'S MEETING WITH DANCER JOAN JARA, WHOSE TEACHER HUSBAND VICTOR WAS ONE OF THE 35,000 CHILEANS MURDERED BY PINOCHET AFTER HIS 1973 COUP.

THE BRITISH CHOREOGRAPHER WANTED IT TO SPEAK FOR THE BLOODILY PURGED OF ALL COUNTRIES, WHILE ALSO WEAVING IN PLENTY OF SPECIFICALLY LATIN AMERICAN IMAGERY, IN PARTICULAR, THE RITUALS AND COSTUMES ASSOCIATED WITH THE DAY OF THE DEAD.

Purpose of Ghost Dances

Do you think the purpose is	Yes/No	Explain your view
To educate	Yes	It shows the audience how different cultures celebrate dance.
To Inform	Yes	It informs people that many people are dying every day and for people to make the most of their lives. Also the oppression which occurred in Chillan towns.
To entertain	Yes	The dance pieces have been created to entertain their audience. It may not always be joyful to watch but they are still being entertained by the dancers.
To challenge viewpoints	Yes	We get to see life from the villagers view point and death from the ghosts viewpoint
To raise awareness	Yes	To raise awareness that death is always waiting for us. And to show that political oppression was a huge part of life in Chile.
To Celebrate	Yes	To celebrate life and making the most of it. And to celebrate death.

Tech Award Dance Component 1 - Ghost Dances

Bruce choreographic approach

Dramatic themes linked to the human condition (political or social) **Human rights themes have provided him with a good source of inspiration**	**A range of styles; contemporary, ballet, folk, popular dance.** **Christopher Bruce's signature movement style is grounded in modern dance techniques with a combination of classical and contemporary dance language**	**Movement must be appropriate to the piece and dancers** **A number of his early works were performed without accompaniment or had music added after they were choreographed**
His personal range of stimuli is extensive including a wide range of literature and music.	Most of his productions have an underlying emotional content.	Most performances are deliberately open to a range of interpretations rather than having a fixed story-line

Bruce Inspiration

South American Folk Music

Instruments included; Marimba, pan flute, percussion, Recp-reco, bombo leguero and siku

Meeting with Joan Jara

Joan was a widow. Her husband was a musician and a composer called Victor. He was tortured and killed by Pinochet's forces. This meeting led him to choreograph Ghost Dances.

Human Rights

Christopher Bruce based many of his dances around human rights. He based Ghost Dances on the oppression in Chile.

Day of the Dead and Ritual Masks

Day of the dead is american holiday. It brings together family and friends to pray for and remember loved ones that have passed away. This holiday was an inspiration for Christopher Bruce. The skulls the dancers wear are based on the sugar skulls in the day of the dead.

Bruce Style

Stemming from his own training, Christopher Bruce's signature movement style is grounded in modern dance techniques with a combination of classical and contemporary dance language termed "neo-classical".

Bruce does not prepare movement before entering the studio, preferring to wait and work with the dancers so that he can be influenced by them. For Bruce, as well as being appropriate to the piece, the movement must also sit well on the dancers.

Bruce's choreography reflects a range of styles: ballet, contemporary, folk and popular dance. He deals with themes linked to the human condition, political or social issues and tends to portray them through dramatic, emotive and theatrical elements.

Ghost Dances was created for Ballet Rambert (as Rambert Dance Company was then known) and first performed on 3rd July 1981 at the Bristol Theatre Royal (Old Vic). It remained in the Company's repertoire for four consecutive seasons and was revived by Rambert on 24th June 1999 at the Theatre Royal, Norwich. It was nominated for the 1982 Society of West End Theatre Awards as the Outstanding Achievement of the Year in Ballet. It has also been performed by Nederlands Dans Theater, Australian Dance Theatre, Cullberg Ballet, Zurich Ballet, Ballet Gulbenkian, Houston Ballet and Ballet du Grand Thèâtre de Genève.

Ghost Dances is a one-act dance work in which three skeletal Ghost Dancers await a group of Dead who will re-enact moments from their lives before passing on.

I made this ballet for the innocent people of South America, who from the time of the Spanish Conquests have been continuously devastated by political oppression. I would like to give my thanks to Joan Jara for all her help and to Inti-Illimani for the inspiration of their performances. CHRISTOPHER BRUCE

https://www.rambert.org.uk/wp-content/uploads/2015/08/Ghost-Dances-Study-Notes-1.pdf


Child
Development

Links between areas of development

Communication and language development

POSITIVE IMPACT

Intellectual development
Knowing the words for things can help children to understand new concepts and remember more.
They can begin to identify more and make sense of how things work.

POSITIVE IMPACT

Social development
Language to play and make friends.
Interact more ,be co-operative and kind
Communicate, their feelings and ideas.
Form friendships and relationships.

NEGATIVE IMPACT

Emotional development
Children with a language delay (have a slower development in their language) are more likely to be frustrated as they cannot express themselves appropriately.
They cannot express how they feel and might find it hard to play with others.
This can lead to them showing aggressive and frustrated behaviours.

Physical development

POSITIVE IMPACT

Intellectual development
- Range of movements = see and explore new things.
- Learn more as can get around, hold and explore objects.

POSITIVE IMPACT

Social development
A child will be able to join in and play with others if they are able to move around and join in the activities, such as in the playground or even playing with play-doh.

NEGATIVE IMPACT

Social development
Delayed physical development. A child may find that they physically cannot keep up with other children, they may not be able to join in with their play such as climbing on the climbing frame, playing games or different activities that use gross and fine motor skills. Because they cannot join in, they may not have the social skills to develop friendships with other children (isolated).

POSITIVE IMPACT

Emotional development
- More independent
- Explore new areas, try new skills = confidence and a higher self-esteem.
- Prevent frustration.

Key Question
Can you think of any other examples of how physical development or communication & language development may affect other areas of development?
Can you turn the positive impacts into negatives?

Mini Case study

Laura is 3 years old, she has excellent communication skills, she can easily communicate her ideas in full sentences, interact with others and asks questions if she does not understand.
What impact will Laura's high level of communication skills have on her.....? What areas of development does this link to?

Hartford Church of England High School

Child Development Tech Award

LAA- Understand the difference between growth and development

Links between areas of development

Intellectual development

NEGATIVE IMPACT

Communication and language development
- Children learn from reading and listening to other people.
- If Oliver cannot understand what the book is about or what other children are talking about this may lead to frustration, poor learning and his own communication skills may not develop further.
- It is through language that children express their thoughts and develop problem solving skills.

NEGATIVE IMPACT

Social development
- With limited cognitive skills Oliver may not be able to cope with his own feelings, he may become frustrated and he may not be able to think through his actions. This links to his emotional development.
- This can impact how he interacts with other people and how they respond to him. He may find it hard to build friendships and relationships.

POSITIVE IMPACT

Social development
Understand what others are saying = develop friendships. Develop important social skills . Understanding of others feelings.This also links to emotional development.

Emotional development

POSITIVE IMPACT

Social development
Understanding and having feelings for others = friendships with others.
Manage her own feelings and emotions
She can recognise other people's feelings = empathetic and sympathetic = better friendships.

NEGATIVE IMPACT

Social development
May not be able to understand other children's feelings = more difficult to make friends, accept or understand how others may be feeling
If had a low self-esteem and low confidence = hard to make friends because she may feel she is not good enough. Could be shy and withdrawn.

POSITIVE IMPACT

Physical development
- Confidence and high self-esteem = try out new skills
- Helps physical development.

Social development

NEGATIVE IMPACT

Communication and language development
- Not wanting to spend time with other children, may affect his communication and language development.
- Not be able to develop new vocabulary from his social interactions

POSITIVE IMPACT

Emotional development
Being with other helps children to feel good about themselves and gives them enjoyment. This can raise their confidence and self-esteem. It also helps them to learn to express emotions appropriately.

Mini Case study Lucien is 4 years old. He is not very confident and prefers his parents to do things for him. When faced with new activities, he waits for an adult to come and help him. He is quite unsure of doing anything that is different.

1. Give an example of how Lucien's lack of confidence could be affecting his physical development
2. Explain how Lucien may be missing out on some aspects of cognitive development.


Food
Technology

Hartford Church of England High School

Food Technology

KS4 Y10 Food Knowledge Organiser HT1

Protein complementation= **LBV+LBV=HBV**

If you are on a plant based diet, all of the essential amino acids (AA) can still be gained through something called ***'protein complementation'***. This is where two of more LBV foods are combined in one meal. In doing so all of the essential AA can be consumed. Example of protein complementation could include:





What is protein?
A macronutrient needed by all animals to survive

HBV=
High Biological Value

EASY FACT TO REMEMBER:
All forms of animal protein is HBV, as they contain all of the essential amino acids

PROTEIN

PROTEIN IS MADE UP OF **AMINO ACIDS** (AA) ;
THERE ARE 20 AMINO ACIDS IN TOTAL:
10 OF THE 20 AAS ARE REFERRED TO AS **'ESSENTIAL'**
ESSENTIAL AA ARE ONES THAT CANNOT BE MADE IN THE BODY AND HAVE TO COME READY MADE FROM THE FOODS WE EAT

Examples of HBV proteins include: milk (dairy), meat (including fish, chicken eggs etc.)



HBV exceptions: Although all animal proteins are HBV, there are a few **'plant based'** forms of protein that are also HBV. These include: soya beans and quinoa

LBV=
Low Biological Value

EASY FACT REMEMBER:
Most forms of plant protein LBV, as they lack one or more of the essential amino acids

Examples of LBV proteins include: nuts, beans, lentils, seeds and cereal grains



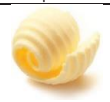
EFFECTS OF PROTEIN DEFFICIENCY: stunted growth – hair loss – vulnerability to infections – digestion problems

PROTEIN - KEY WORDS & TERMS: macronutrient; HBV; LBV; protein complementation; amino acids, essential amino acids

Minerals are chemical elements that our bodies need I small amounts. They help in various chemical reactions in our body and are needed for a variety of reasons: **CALCIUM=** strong bones & teeth; **IRON=** helps form red blood cells; **SODIUM=** controls body's water content; **PHOSPHORUS=** like calcium, 'phosphorus is also needed for healthy bones and teeth; **FLUORIDE=** strengthens teeth, hardens tooth enamel & prevents tooth decay; **IODINE=** needed in very small amounts (trace elements) to help make some of the body's hormones

FATS – KEY WORDS & TERMS
Fatty acids
Triglyceride (fat molecule)
Monounsaturated fatty acids (are healthy fats most commonly found in olive oil, nuts, seeds)
Saturated fats (unhealthy, found mainly in sold fats like butter)
Visible fats (fat you can see on foods like raw meat)
Invisible fats (fats you can't see in food, like cake or biscuits)

FAT-quick facts: Fats are called 'fats' when they are solid at room temperature. But 'fats' are called 'oils' when they are liquid at room temperature.

Saturated fats tend to be solid at room temperature	Unaturated fats tend to be liquid at room temperature
	

FATS

Fat is a **macronutrient** that is needed by all animals.

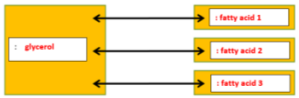
What are the **'functions'** of fat in the body?

1. A store of energy
2. To insulate the body
3. Provides protective cushioning for the body
4. fat soluble vits: A,D,E & K

Too much fat:
- Gain weight, lead to obesity
- Linked to coronary heart disease CHD

Too little fat:
- Loss of weight
- Get cold easily
- Not receive enough fat vits: ADEK

The chemical structure of fats:



Essential fatty acids: There are two fatty acids that cannot be made by the body and therefore have to come from the food we eat. These are referred to as 'essential' fatty acids and are found in oily fish as well as plant and seed oils

3 Types of Carbohydrate:

Monosaccharides	Disaccharides	Polysaccharides
		

Visible fats	Invisible fats
 LARD	
 RAW MEAT	
 BUTTER	

Functions of Carbohydrates in the body:
- **Energy**

- **Dietary Fibre**

CARBOHYDRATES

50% of our energy should come from carbs

CARBOHYDRATE: A MACRONUTRIENT NEEDED BY ALL ANIMALS. IT IS MADE BY GREEN PLANTS DURING A PROCESS CALLED **PHOTOSYNTHESIS**

CARBOHYDRATES – KEY WORDS & TERMS:
Photosynthesis; sugars (simple carbs); complex carbs; monosaccharides & disaccharides (simple sugars); polysaccharides (complex carbohydrates); dextrinisation

Fat soluble Vitamins:
"Yo <u>ADEK</u>! You is well fat mate!"
VIT A: good eyesight
VIT D: healthy bones & teeth
VIT E: healthy skin & eyes
VIT K: clots blood and heals wounds

Water soluble Vitamins:
B1 Thiamine: nervous system
B2 Riboflavin: energy release from food & repair of tissue
B3 Niacin: energy release from food, skin, nervous system
B9 Folic Acid: growth, healthy babies (work with B12 make blood)
B12 Cobalamin: nervous system (works with B9)
C Ascorbic Acid: protects against infection & allergies

Functions of protein in the body:
- Growth
- Repair cells
- Energy