Student Name:

MAGNUS
CHURCH OF ENGLAND
ACADEMY

Knowledge Organiser: April 2025

Year 11

"Wise men and women are always learning, always listening for fresh insights."
Proverbs 18:15 (The Message)

Determination – Integrity – Ambition – Humility – Compassion

Using Your Knowledge Organiser

Your teachers have worked hard to produce this document for you and have selected the most important knowledge that you will need to know to make good progress in their subjects. **You should aim to learn all the information in your knowledge organiser off by heart.**

Try out some of the strategies listed here to help you achieve this.

1. Read the knowledge organiser and ensure you understand it. Try and make links between the information on it and what you already know and do.

2. Look, Cover, Write, Check – the traditional way of learning spellings!

3. Create a Mnemonic – Using the first letters of keywords create a memorable sentence or phrase.

4. Create an acronym – using the first letters of keywords to create a word to prompt you to remember all of the information.

5. Write it out in full on a blank version of the same format.

6. Write it out in note form, reducing it to key ideas or words. Try the same format but a smaller piece of paper.

7. Recreate the knowledge organiser as a series of images and words

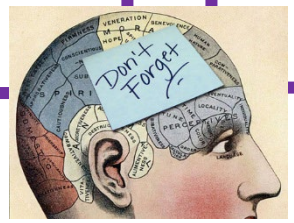
8. Write a set of test questions for yourself using the organiser.
    - Answer these without the organiser the next day.
    - Swap your questions with a friend to increase challenge.
    - Turn your questions in to a game by putting them on cards and playing with friends.

9. Chunk the knowledge into smaller bitesize sections of around 5 pieces of information. Concentrate on mastering a chunk before you start on the next.

10. Try to make connections between the information and people you know. E.g. Visualise yourself trying these strategies with a specific teaching group.

11. Talk about the information on the knowledge organiser with another person. Teaching someone else about it helps us learn it.

12. Say the information out loud – rehearse it like learning lines for a play, or sing it as if you are in a musical!



Year 11 Half term three key vocabulary

English Language	**English Literature**	**Maths**		**Science - Biology**	**Science-Chemistry**
Ambitious	Combative	Estimate		Resolution	Intermolecular forces
Adventurous	Complimentary	Construct		Transpiration	Electrostatic attraction
Amiable	Conscientious	Shade		Communicable disease	Atomic mass
Anxious	Considerate	Enlarge, Rotate, Relfect, Translate		Vaccine	Activation energy
Appreciative	Constant	Expand, Multiply out		Photosynthesis	Overall energy change
Assertive	Curious	Factorise		Limiting factor	Electrolysis
Attentive	Deceptive	Rearrange		Diffusion	Acid
Attractive	Deluded	Round		Alveoli	Alkali
Authoritative	Demanding	Simplify		Independent variable	Base
Brash	Despicable	Solve by		Dependent variable	Salt
Charming	Detached	Write in the form		Control variable	
Science – Physics	**History**	**Geography**	**Spanish**	**GCSE RS**	**Sociology**
Repeatability	St Cuthbert	Food Security	Noun	Buddha	Absolute poverty
Reproducibility	Prince Bishop	Hydroponics	Adjective	Jakata	Achieved status
Zero error	Æthelwine	New Green Revolution	Verb	Ascetics	Ascribed status
Random error	William Walcher	Biotechnology	Connective	Meditation	Bourgeoisie
Anomalous result	William of Calais	Irrigation	Opinion verb	Enlightenment	Culture of dependency
Renewable	Ranulf Flambard	Organic Farming	Infinitive	Mara	Glass ceiling
Non-renewable	Prior Turgot	Permaculture	Frequency expression	Dhamma	Life chances
Half-life	Reservations for Plains Indians	Urban Farming	Conjugate	The three marks of existence	Power
Excitation	Dawes General Allotment Act (1887)	Managed Fishing	Adjectival agreement	The four noble truths	Pressure group
Ionisation	Ghost Dance		Wow phrase	Arhat	Relative poverty
	Total War		Exclamation		Social exclusion
Drama	**Child Development**	**Dance**	**Art**	**Sport**	**Technology**
Venue	Delayed gross motor skills	Command words	Response	The FA	A static load
Target audience	Delayed fine motor skills	Subject Specific Vocabulary	Develop	RFU	A dynamic load
Style and genre	Poor concentration levels	Stimulus	Experiment	England Netball	Tension
Personnel	Down's Syndrome	Motif	Annotate	England Hockey	Tensile
Marketing	Embryo	Development	Review	British Gymnastics	Compression
Budget	Delayed literacy skills	Choreographic device	Refine	LTA	Compression strength
	English as an additional language	Choreographic intent	Primary source		Torsion
	Positive role model	Action	Composition		Torsional strength
	Social norms and values	Space	Analyse		Bending
	Limited interaction	Dynamics	Resource		Shear
Construction	**iMedia**	**Hospitality and Catering**	**Music**	**Enterprise**	**Core RS**
Line pin	Visual Identity	Macronutrients	Direction	Promotional mix	Adultery
Tingle plate	Visualisation Diagram	Fat	Repetition	Push Strategies	Civil partnership
String line	Mind Map	Carbohydrates	Contrast	Budget	Cohabitation
Corner block	Moodboard	Complex carbohydrates	Imitation	Assets	Contraception
Brick dimensions	Central Subject Node	Simple carbohydrates	Ostinato	Capital	Divorce
Mortar joint	Topic Node	Protein	Chromatic	Start-up costs	Extended family
Block dimensions	Sub Node	Micronutrients	Range	Running costs	Faithfulness
	Connector/Branch/Line	Fat soluble	Interval	Cost of sales	Family planning
	Conventions	Water soluble	Conjunct	Retained profit	Gender equality
	Concept sketches		Disjunct	Net current assets	Gender prejudice
			Sequence	Liquidity	Gender discrimination
			Triadic	Trade Credit	

Year 11 English Language and Literature : Character Traits

Ambitious	Having or showing a strong desire and determination to succeed;	
Adventurous	Willing to take new risks; daring; bold; brave.	
Amiable	Likeable; sociable; friendly.	
Anxious	Feeling or showing worry or nervousness; concerned;	
Appreciative	Feeling or showing gratitude or pleasure.	
Assertive	Having or showing a forceful character; confident.	
Attentive	Pays close attention to something; concentrating.	
Attractive	Pleasing or appealing to the senses; good-looking.	
Authoritative	Commanding and self-confident; likely to be respected and	
Brash	Self-assertive in a rude, noisy way; impatient.	
Charming	Pleasant; attractive; likeable; endearing.	
Combative	Argumentative; ready or eager to fight or argue.	
Complimentary	Expressing a compliment; giving praise; flattering; admiring.	
Conscientious	Wishing to do one's work well and thoroughly; reliable;	
Considerate	Careful not to inconvenience or harm others; caring;	
Constant	A situation that doesn't change; always there.	
Curious	Inquisitive; eager to now or learn something.	
Deceptive	Giving an appearance or impression different from the true one; misleading.	
Deluded	Believing something that is not true; foolish; duped; taken	
Demanding	Making others work hard or meet high standards; not easi-	
Despicable	Deserving hatred and contempt; detestable; loathsome.	
Detached	Separate or disconnected; isolated.	
Determined	Decided on a decision and standing firm with it; set on.	
Devious	Sly; uses underhand tactics to get desired goal.	
Disillusioned	Disappointed in someone or something that	
Emotional	having feelings that are easily excited and openly dis-	
Encouraging	One who is supportive; gives one confidence; positive	
Feckless	Irresponsible; lacking strength in character.	
Fickle	Changing loyalties or affections frequently; inconstant;	
Forceful	Strong; assertive; powerful.	
Formidable	Inspiring fear or respect by being impressively large; intimi-	

Year 11 English Language and Literature : Character Traits

Generous	Showing a readiness to give more money than is necessary.	
High-handed	Using power or position in authority without considering feelings of others; imperious.	
Honest	Free of deceit; truthful; direct.	
Hypocritical	Behaving in a way that suggests one has higher standards	
Impatient	Having or showing a tendency to be quickly irritated	
Imposing	Grand and impressive in appearance.	
Impulsive	Acting without thinking; instantaneous; rash.	
Independent	Free from outside control; not subject to another's authori-	
Indignant	Feeling or showing anger/ annoyance at what is perceived	
Influential	To have great influence over someone; powerful; controlling.	
Inquisitive	Having or showing an interest in learning things; curious.	
Insensitive	Showing or feeling no concern for others' feelings; blasé.	
Insincere	Doesn't express genuine feelings; dishonest; two-faced.	
Integrity	The quality of being honest and having strong morals;	
Intelligent	Clever; sharp; quick-witted.	
Intimidated	Being frightened or threatened; afraid.	
Intimidating	Having a frightening or threatening affect; unapproachable.	
Introvert	A shy person; reserved; withdrawn.	
Irresistible	Too attractive and tempting to resit.	
Irresponsible	Not thinking enough about the consequences of your actions; careless; reckless.	
Jaunty	A lively, confident character.	
Judgmental	Having or displaying an overly critical point of view.	
Lacks self-confidence	Lacks trust in own ability/ qualities.	
Loner	A person that prefers not to associate with others; reclu-	
Manipulative	Exercising control or influence over someone; scheming; cunning; devious.	
Naïve	Showing a lack of experience; innocent.	
Nervous	Easily agitated; alarmed; anxious; edgy.	
Opportunist/ chancer	A person who takes advantage of opportunities when they	
Patient	Able to accept or tolerate problems without getting irritat-	
Patronising	Treat in a way that is ***apparently*** *kind or helpful but that betrays a feeling of superiority; humiliate; talk down to; put*	
Persistent	Continuing with something despite obstacles.	
Pitiable	Deserving of pity; pathetic; miserable.	

Year 11 — English Literature Paper 1 Revision

A Christmas Carol, Charles Dickens

'Hard and sharp as flint […] as solitary as an oyster'	The adjectives 'hard' and 'sharp' imply Scrooge has a tough exterior, but the simile 'as flint' suggests if hit hard enough it could spark a fire inside to create change. The simile comparing him to an oyster emphasises this by focusing on a hard exterior that if cracked open, may hold a pearl (something of beauty).
'If they would rather die, they had better do it, and decrease the surplus population'	Scrooge shows his callous, selfish attitude towards the poor by viewing them as better off dead and simply a 'surplus', viewing them in monetary terms as opposed to human beings.
'I wear the chain I forged in life…The chain was made up of cash boxes…ledgers… heavy purses'	Marley's Ghost tells Scrooge than unless he changes he will have a chain holding him to the earth, forged by his sins 'boxes, ledgers, purses' (money). This is used to scare Scrooge and make him realise where his sins lie.
'A solitary child, neglected by his friends is left there still – Scrooge sobbed'	The Ghost of Christmas Past shows Scrooge his time as a child at school, and Scrooge shows a moment of emotion . The reader is given a reason to sympathise with Scrooge, and Scrooge is given a reminder of who he was and how he felt.
'They are Man's. This boy is ignorance. This girl is Want. Beware for I see that written which is Doom.'	Dickens explains that Mankind's ignorance and want has poisoned them, and that ignorance especially will cause 'Doom'. This summarises his message to the upper class, that their ignorance will lead to the death of people and ultimately society.
'It was shrouded in a deep black garment… left nothing visible except one outstretched hand.'	The Ghost of Christmas Yet to Come does not speak to Scrooge, as Scrooge must decide to change by himself and without guidance. He is dressed as the Grim Reaper to emphasise that ultimately Scrooge will end up dead and without mourners if he does not change.
'I will honour Christmas in my heart. I will live in the Past, the Present and the Future. I will not shut out the lessons that they teach'	By Stave 5, Scrooge is a changed man and promises to keep the lessons of all three Ghosts in his heart. The repetition of 'I will' shows that he has changed and that he now has a more positive and charitable attitude in life.

Conflict Poetry

Exposure	'but nothing happens' *Repeated at the end of every stanza. Could show frustration that the war continues or that the soldiers are waiting, or that men are left to die of exposure.* 'merciless iced east winds that knive us' *Personification of the wind as relentless and constant. The verb 'knive' makes the wind sound stabbing and lethal.*
The Prelude	'small circles glittering idly in the moon' *The patterns in the water as he rows. A sense of peace, beauty and serenity. 'Idly' and 'small' suggest calm and tranquillity. 'Glittering' creates a sense of magic.* 'huge peak black and huge' *A total contrast to how the natural world was perceived earlier. He's lost for words, or overwhelmed – repetition x 2 'huge'. 'Black' makes it seem looming, sinister.*
Poppies	'leaned against it like a wishbone' *Wishing to be reunited with her child. Leaning against the memorial as if tired or grieving.* 'intoxicated' *Drunk with excitement at an adventure (to war?) contrasts to the mother's difficulty in letting go. Youth vs experience/ naivety vs experience.*
Half-Caste	'explain yuself wha yu mean' *Deliberate misspellings to convey the sound of a Caribbean accent. Pride in ethnicity, culture. Anger, demanding an explanation for the racist language 'half caste'.* 'de whole o yu eye an de whole o yu ear an de whole o yu mind' *A playful command for people to be more open minded. The irony is that people who use the term 'half caste' are themselves only 'half' aware.*
A Poison Tree	'my wrath did grow' *Wrath = extreme anger, the strong emotion grows even bigger as the speaker 'waters' it with their 'fears' an example of the extended metaphor of negative feelings as a tree that we can choose to nurture. Free will, choices, conflict in relationships.* 'apple bright' *links to Biblical imagery (Eve ate the apple, Original Sin and temptation)*
The Destruction of Sennacherib	'like a wolf on the fold' *The Assyrian is described as a predator in this simile, rhymes with the next line* 'gleaming purple and gold' *to create a rhyming couplet; a pattern which is repeated throughout – beat like horse hooves (anapaestic tetrameter*
The Man He Killed	'quaint and curious war is!' *unusual choice of words to describe war, ironic, shows how strange it is to shoot someone you would be friends with if there wasn't a war on. Similarities between the young men are greater than their artificial differences.* 'because – because he was my foe // Just so' *a critical view of war and conflict, deceptively simple showing up the concept of 'foes' and 'enemies' as ridiculous*

Conflict Poetry

Cousin Kate	'bound you with his ring' *bound suggests being tied up or constrained, ring is marriage – loss of innocence and freedom after marriage* *'my shame, my pride'* opposites and repetition. A child born out of wedlock is seen as a 'shame' but she also loves her son. Chance that he will inherit and therefore the speaker will be elevated above 'Lady Kate'. Conflict between two women about class, marriage and being exploited by a Gentleman.
The Charge of the Light Brigade	'the six hundred' *repeated to show how many soldiers died, glorifying conflict and personal sacrifice* 'volley'd and thunder'd ' *the movement and sounds of the cannon balls, contracted to fit the anapaestic tetrameter (horse hoof beat)*
Catrin	'tight red rope of love' *relationship between mother and daughter – possibly an umbilical cord, a rope can bind which is positive (connection, safety) but also negative (restraint). Red is equally ambiguous – strong emotion, love or hatred.* 'trailing love and conflict' *contrasting emotions which often occur in parent/child relationships as the child grows up to be more independent*
War Photographer	'arbitrary as a blood stain on a wall' *arbitrary = can mean whimsical, by chance OR tyrannical, absolute and domineering. The war photographer has seen terrible things and knows the photographs don't tell the full story just like a blood stain. Shadows of conflict.* 'I took a pair of peach, sun-gilded girls' *took shows the power of a photographer to create meaning to choose what to show and what not to show. Contrast between the subjects she photographs.*
Belfast Confetti	'Balaclava, Raglan, Inkerman, Odessa Street' *Belfast Streets named after famous battles. The poet reflects on a society that is built on a history of conflict. He calls is a labrynth (a maze) and says he knows it well. He knows society's violent history.* 'where am I coming from? Where am I going? A fusillade of question marks' *Punctuation used to represent bomb explosions throughout the poem. Links between language and conflict. A sense of confusion and loss of identity caused by conflict.*
The Class Game	'well, Mate' *colloquial language, sarcastic in tone but also pride in working class dialects.* 'cos we live in a corpy' *Liverpool dialect word for council house (corporation)*
No Problem	'I am not de problem' *Carribean dialect, proud of 'non Standard English' ways of speaking, identity and accent are linked.* 'sum of me best friends are white' *a play on a racist expression that some white people use to show affinity with black people's fight for equality. A playful take on a very serious matter – humour is powerful.*

GCSE Foundation Formula Sheet – need to know.

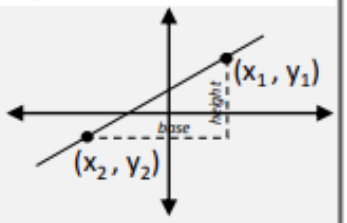
Equations of Straight Line Graphs

Gradient:

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

or

$$m = \frac{\text{height}}{\text{base}}$$



Equation of a Line

$y = mx + c$

Midpoint of 2 points (x_1 , y_1) and (x_2 , y_2)

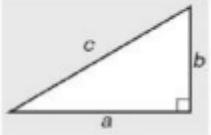
$$\left(\frac{x_1 + x_2}{2}, \frac{y_1 + y_2}{2}\right)$$

Pythagoras

Pythagoras' Theorem *

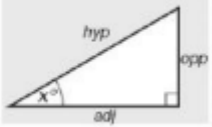
For a right-angled triangle,

$a^2 + b^2 = c^2$



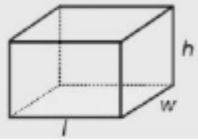
Trigonometric ratios (*new to F*)

$\sin x^o = \frac{\text{opp}}{\text{hyp}}$, $\cos x^o = \frac{\text{adj}}{\text{hyp}}$, $\tan x^o = \frac{\text{opp}}{\text{adj}}$ *

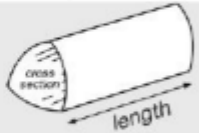


Volumes

Cuboid = $l \times w \times h$



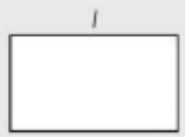
Prism = area of cross section × length *



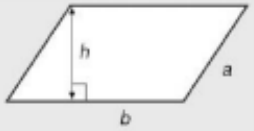
Cylinder = $\pi r^2 h$

Areas

Rectangle = $l \times w$

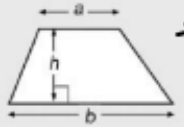


Parallelogram = $b \times h$



Triangle = $\frac{1}{2} b \times h$

Trapezium = $\frac{1}{2}(a + b)h$ *

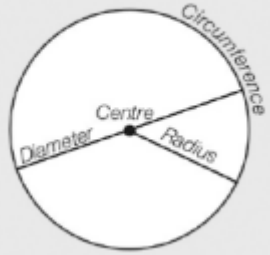


Circles

Circumference = $\pi \times$ diameter, $C = \pi d$ *

Circumference = $2 \times \pi \times$ radius, $C = 2\pi r$

Area of a circle = $\pi \times$ radius squared, $A = \pi r^2$ *



Angles in Polygons

Sum of Interior Angles $= (n - 2) \times 180°$

Where n is the number of sides of the shape

Exterior Angles add up to 360°

One exterior angle in a REGULAR polygon $= \frac{360°}{n}$

Pairs of Interior and Exterior Angles add up to 180°

Constructing Pie Charts

The angle to draw for each sector is

$$\text{Angle} = \frac{\text{frequency}}{\text{total}} \times 360°$$

Compound Growth & Decay

The amount after n years (or days, etc.) is: *

$$\text{starting amount} \times \left(1 \pm \frac{r}{100}\right)^n$$

where r is the rate of change.

The $\pm$ means + for growth and – for decay

Compound measures

Speed

$$\text{speed} = \frac{\text{distance}}{\text{time}}$$

Density

$$\text{density} = \frac{\text{mass}}{\text{volume}}$$

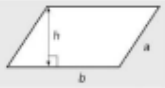
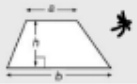
HT

GCSE Maths Higher Formula Sheet

These formulae are not given to you and you need to know them

all * are provided.

Areas

Parallelogram = $b \times h$	
Triangle = $\frac{1}{2} b \times h$	
Trapezium = $\frac{1}{2}(a + b)h$ *	

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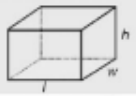
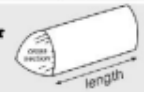
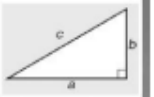
Cuboid = $l \times w \times h$	
Prism = area of cross section × length *	
Cylinder = $\pi r^2 h$	
Pyramid = $\frac{1}{3}$ × area of base × h	

Pythagoras

Pythagoras' Theorem

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



Trigonometric ratios (new to F) *

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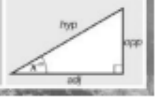


Compound measures

Speed

$\text{speed} = \frac{\text{distance}}{\text{time}}$

Density

$\text{density} = \frac{\text{mass}}{\text{volume}}$

Quadratic equations

The Quadratic Equation *

The solutions of $ax^2 + bx + c = 0$, where $a \neq 0$, are given by $x = \frac{-b \pm \sqrt{(b^2 - 4ac)}}{2a}$

Direct & Inverse Proportion

If x is directly proportional to y^n then

$x \propto y^n$ so $x = ky^n$

If x is inversely proportional to y^n then

$x \propto \frac{1}{y^n}$ so $x = \frac{k}{y^n}$

Lowest Common Multiple

The LCM of two numbers, a and b, is

$$LCM = \frac{a \times b}{HCF}$$

Constructing Pie Charts

The angle to draw for each sector is

$$\text{Angle} = \frac{\text{frequency}}{\text{total}} \times 360°$$

Stratified Sampling

The frequency for a group in a stratified sample is

$$\frac{\text{frequency of group}}{\text{total frequency}} \times \text{sample size}$$

Quadratic Sequences

The n^{th} term of a quadratic sequence is in the form $an^2 + bn + c$, where

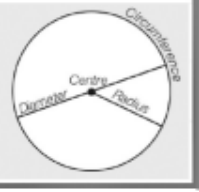
$2a$ = 2nd difference
$3a + b$ = 1st difference (between 1st and 2nd term)
$a + b + c$ = 1st term in the sequence

Median from a Histogram/Frequency Table

$$L + \frac{m - p}{f} \times w$$

L is the lower limit of the median class
m is the median point
p is the total frequency of the previous bars
f is the frequency of the median class
w is the class width of the median class

Circles

Circumference = π × diameter, $C = \pi d$ *	
Circumference = $2 \times \pi \times$ radius, $C = 2\pi r$	
Area of a circle = π x radius squared, $A = \pi r^2$ *	

Area of a Sector

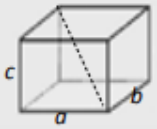
$$A = \frac{\theta}{360°} \times \pi r^2$$

Length of an Arc

$$A = \frac{\theta}{360°} \times \pi d$$

Length of diagonal across a Cuboid (3D Pythagoras)

$d^2 = a^2 + b^2 + c^2$

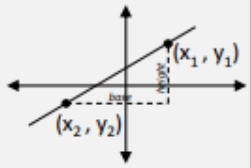


Gradient of a Line

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

or

$$m = \frac{\text{height}}{\text{base}}$$



Equation of a straight Line

Given a point (x_1, y_1) and the gradient m, the equation of a straight line is

$$y - y_1 = m(x - x_1)$$

Substitute the numbers in, expand and simplify

Perpendicular Gradients

Given a gradient of a line m, the gradient of the line perpendicular to it is: $-\frac{1}{m}$

Midpoint of two points

between (x_1, y_1) and (x_2, y_2) $\left(\frac{x_1 + x_2}{2}, \frac{x_1 + y_2}{2}\right)$

Angles in Polygons

Sum of Interior Angles $= (n - 2) \times 180°$

Where n is the number of sides of the shape

Exterior Angles add up to 360°

One exterior angle in a REGULAR polygon:

$$\frac{360°}{n}$$

Pairs of Interior and Exterior Angles add up to 180°

Compound Growth & Decay

The amount after n years (or days, etc.) is: *

$$\text{starting amount} \times \left(1 \pm \frac{r}{100}\right)^n$$

where r is the rate of change.
The $\pm$ means + for growth and – for decay

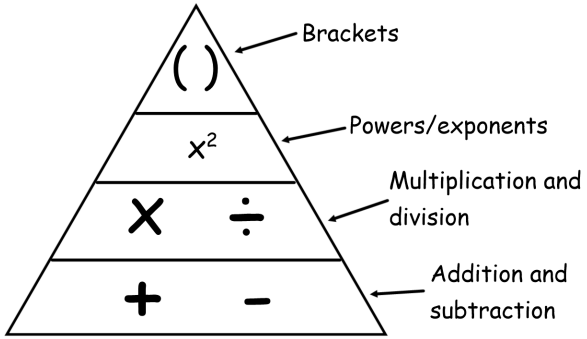
Trigonometric formulae

Sine Rule $\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$ *

Cosine Rule $a^2 = b^2 + c^2 - 2bc \cos A$ *

Area of triangle $= \frac{1}{2} ab \sin C$ *

Order of Operations



Inverse Operations

+ ⟷ −

× ⟷ ÷

$\square^2$ ⟷ $\sqrt{\square}$

$\square^3$ ⟷ $\sqrt[3]{\square}$

Square Numbers

1 x 1 or 1^2 = 1
2 x 2 or 2^2 = 4
3 x 3 or 3^2 = 9
4 x 4 or 4^2 = 16
5 x 5 or 5^2 = 25
6 x 6 or 6^2 = 36
7 x 7 or 7^2 = 49
8 x 8 or 8^2 = 64
9 x 9 or 9^2 = 81
10 x 10 or 10^2 = 100
11 x 11 or 11^2 = 121
12 x 12 or 12^2 = 144

Cube Numbers

$1^3 = 1 \times 1 \times 1 = 1$
$2^3 = 2 \times 2 \times 2 = 8$
$3^3 = 3 \times 3 \times 3 = 27$
$4^3 = 4 \times 4 \times 4 = 64$
$5^3 = 5 \times 5 \times 5 = 125$

Written methods

Multiplication (Grid method)

26 x 5

✖	20	6
5	100	30

The 26 is broken into 20 and 6. These numbers are multiplied as shown.

The results are then added, 100 + 30 = 130.

Division (Bus stop)

186 ÷ 6

0 3 1
6 | 1 1 8 6

6 doesn't divide into 1, so the 1 carries.
6 divides into 18, 3 times.
6 divides into 6, once.

Multiplying Integers

If the signs are the same, the result is positive.

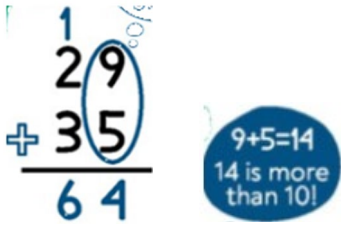
+ x + = + − x − = +

+ x − = − − x + = −

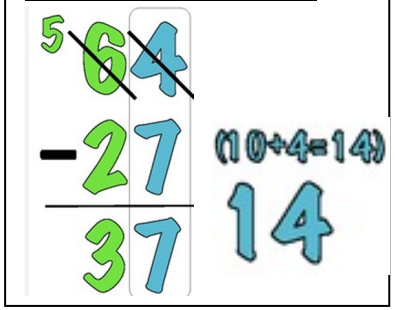
Adding Negative Numbers

+ add +	Add the numbers; end result is a positive E.g. 3 + 5 = 8
+ add −	Find the difference between the numbers; end result takes the sign of the number with largest magnitude. E.g. 3 + - 5 = -2
- add -	Add the integers; end result is a negative -3 + -5 = -8

Column Addition



Column Subtraction



Rounding (to different degrees of accuracy)

* 5 and above rounds up *

24.356 To the nearest integer (whole number)

24

24.356 To 3 significant figures (starting at first non-zero digit)

24.4

24.356 To 2 decimal places (digits after the decimal point)

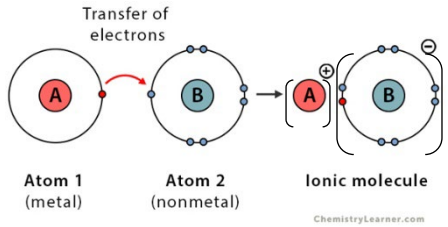
24.36

Draw in your line then check the number to the right

Subject: Science - Chemistry Topic: Chemistry Paper 1

Bonding

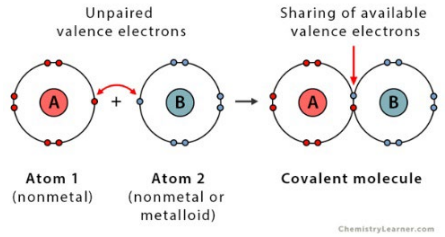
Ionic Bond



The **metal** atom will lose an electron and become a positively charged ion the **non metal** will gain the electron and become a negatively charged ion.

An ionic bond is the strong electrostatic force of attraction between oppositely charged ions.

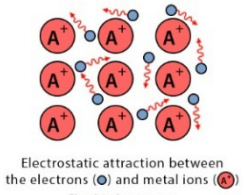
Covalent Bond



Two or more non metal atoms will share electrons to fill their outer shell.

Group 7 elements share 1 electron.
Group 6 elements share 2 electrons.
Group 5 elements share 3 electrons.

Metallic Bond



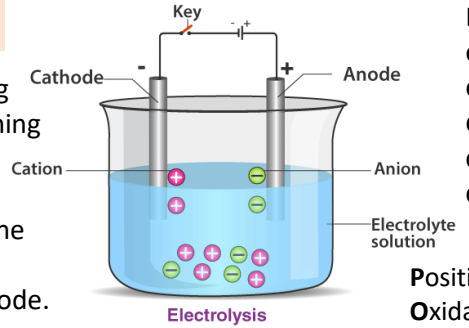
Metals need to lose electrons to become stable. If there are only metal atoms around the electrons have nowhere to go and become delocalised – they are free to move from ion to ion.

A metallic bond is the strong electrostatic forces of attraction between delocalised electrons and metal ions.

Electrolysis

Electrolysis is the breaking down a substance containing ions using electricity.

When a charge is set up the ions will move to the oppositely charged electrode.



Electrolysis will only work if an electrolyte is used. An electrolyte is the molten or dissolved substance that contains ions that can carry charge.

Positive **A**node **N**egative **I**s **C**athode
Oxidation **I**s **L**oss **R**eduction **I**s **G**ain

Subject Terminology

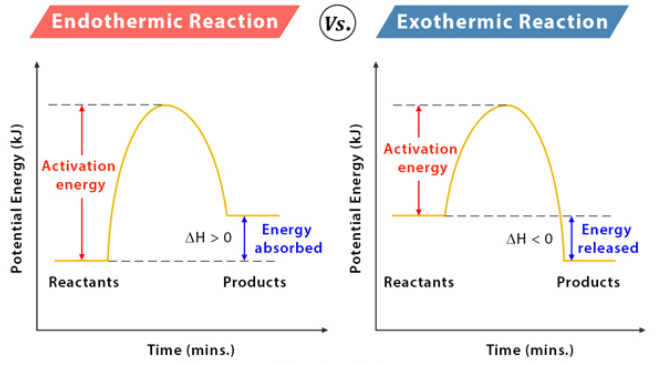
Key Word	Definition
Intermolecular forces	Weak forces of attraction between covalent molecules.
Electrostatic attraction	Forces of attractions between oppositely charged ions in a giant ionic lattice.
Atomic Mass	The number of protons and neutrons in the nucleus of an atom
Activation energy	The minimum amount of energy required to start a reaction
Overall energy change	The difference in the energy of the reactants and products in a reaction

Energy Changes

Exothermic reactions release heat energy into the surroundings. The energy in the bonds in the products have less energy than the bonds in the reactants.

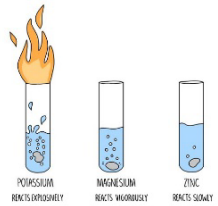
Endothermic reactions takes in heat from the surroundings. The energy in the bonds in the products have more energy than the bonds in the reactants.

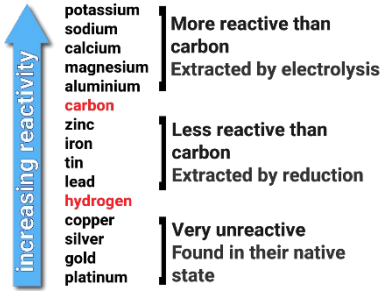
Endothermic and Exothermic Reactions Energy Graph



Subject: Science - Chemistry Topic: Chemistry Paper 1

Reactivity





The reactivity series allows us to predict how metals will react.

A more reactive metal will displace a less reactive metal from a compound.

Oxidation is the loss of **electrons** from a substance. It is also the gain of oxygen by a substance.

Reduction is the gain of electrons by a substance. It is also the loss of oxygen from a substance.

Subject Terminology

Key Word	Definition
Acid	A substance that when dissolved in water it has a pH of less than 7 and release H+ ions.
Alkali	A substance that when dissolved in water it has a pH of more than 7 and release OH- ions.
Base	A substance that can neutralise acids, they can be soluble (alkali) or insoluble.
Salt	A compound formed when some or all of the hydrogen in an acid is replaced by a metal.

Periodic Table – Group 1, 7, 0

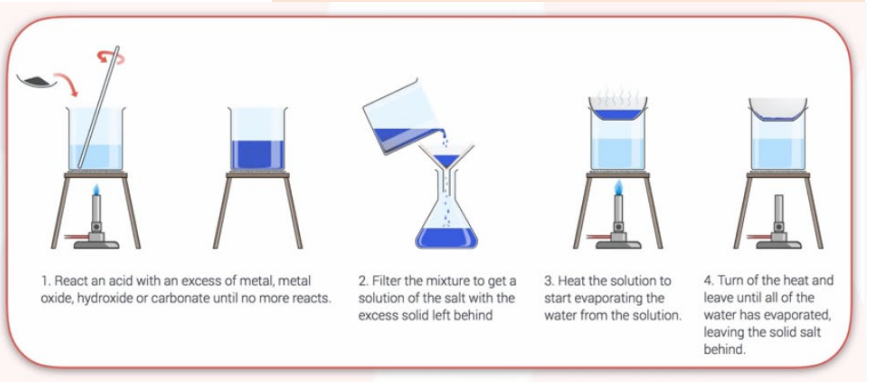
Properties as you go DOWN Group 1, 7 and 0.		
Group 1	**Group 7**	**Group 0**
Reactivity increases	Reactivity decreases	Unreactive
Melting and Boiling points get lower	Melting and Boiling points get higher	Boiling point gets higher
Relative atomic mass goes up	Relative atomic mass goes up	Relative atomic mass goes up

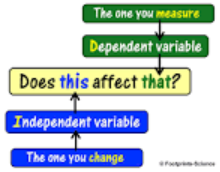
Group 1 Elements
- 1 electron in the outer shell. This makes them very reactive.
- Easily lose one electron in outer shell to form a full outer shell.
- They form positive ions.
- They're soft.
- They have a low density.

Group 7 Elements
- Also called the halogens.
- As elements they form molecules that contain two atoms.
- E.g. Cl_2 is chlorine

Group 0 Elements
- Also called the noble gases.
- Colourless gases at room temperature.
- All have 8 electrons in the outer shell, apart from Helium which has 2 - stable full outer shell.
- Unreactive.

Making Salts required practical





Identify the variables

Independent variable – the variable that is changed during a scientific experiment when you carry out a repeat.

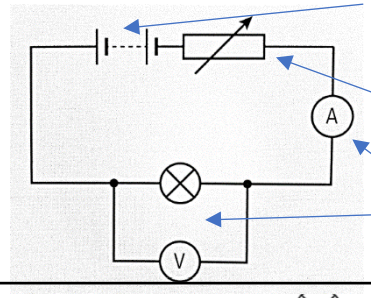
Dependent variable – the variable being tested or measured during a scientific experiment.

Control variable – a variable that is kept the same during a scientific experiment. Any change in a controlled variable would invalidate the results.

Subject: Science - Physics Topic: Physics Combined Science Paper 1

Electricity

Investigating circuit components required practical

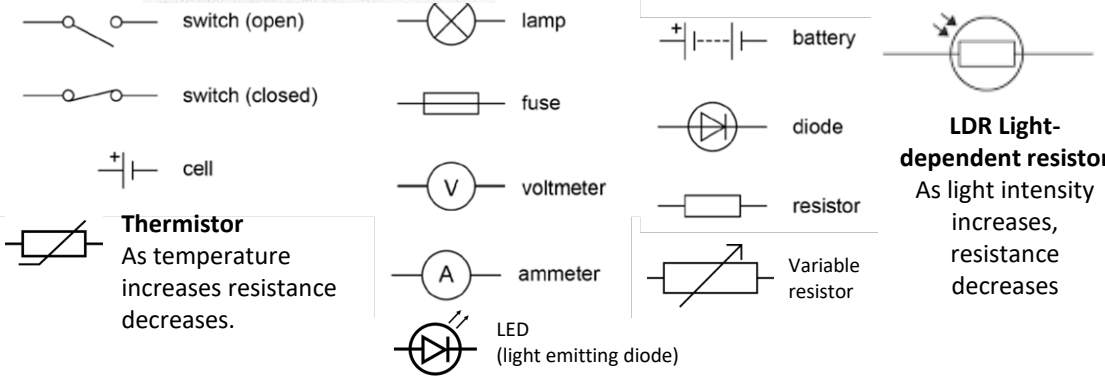


Swap the wires at the power supply to get negative readings.

Variable resistor to get 5 current and potential difference readings.

Ammeter connected in **series**

Voltmeter connected in **parallel**

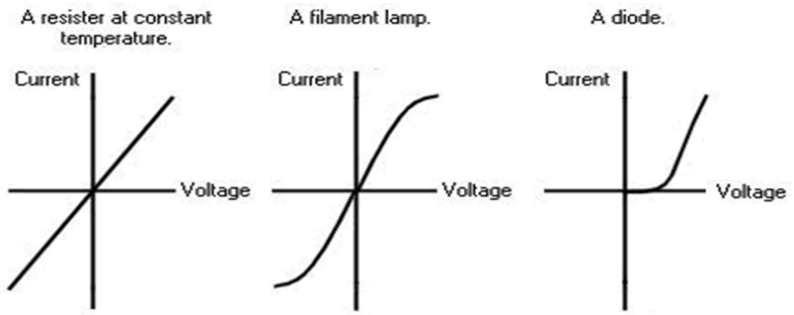


Thermistor
As temperature increases resistance decreases.

LDR Light-dependent resistor
As light intensity increases, resistance decreases

IV graphs for circuit components

This graph shows a **directly proportional relationship** as the line of best fit is a **straight line through the origin**.
This is an **Ohmic conductor.**



These are non-ohmic conductors as there is not a directly proportional relationship.

Equations to learn

Symbol equation	Word equation
P = I V	Power = current x potential difference
$P = I^2 R$	Power = current^2 x resistance
Q = I t	Charge flow = current x time
E = P t	Energy = power x time
	Efficiency = $\frac{\text{useful energy output}}{\text{total energy input}}$
V = I R	Potential difference = current x resistance
E = Q V	Energy = charge flow x potential difference
$E_p = m g h$	Gravitational potential energy = mass x gravitational field strength x change in height

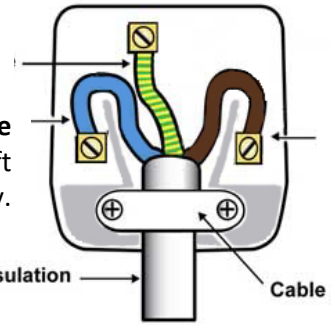
Electricity in the Home

Mains electricity is alternating current (AC).
This means the potential difference changes direction.

Mains frequency = 50Hz
Mains potential difference = 230V

Earth Wire
Green and Yellow
Prevents the appliance becoming live.

Neutral Wire
B**L**ue to the **L**eft
Completes the circuity.



Live Wire
B**R**own to the **R**ight
Provides the AC potential difference.

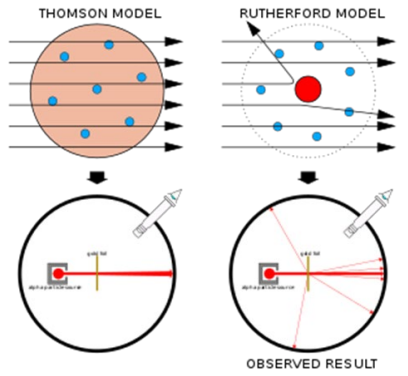
Subject: Science - Physics Topic: Physics Combined Science Paper 1

Radioactivity

	Structure	Ionising Power	Stopped by
Alpha	2 protons 2 neutrons	Strong	Paper, skin
Beta	Fast moving electron	Moderate	A few mm of aluminium
Gamma	Electromagnetic wave	Weak	Thick lead or concrete

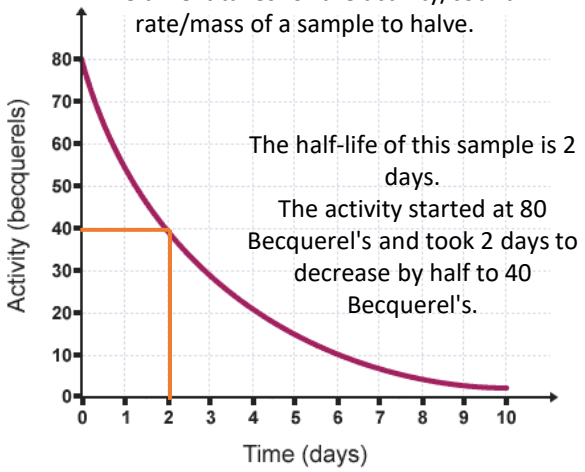
Rutherford's alpha scattering experiment
Disproved the plum pudding model

1. Alpha particles were fired at very thin gold foil
2. They expected the alpha particles to pass straight through because the positive charge was evenly distributed through the atom.
3. The actual result was that most went through the gold foil but some alpha particles were partially deflected, some particles bounced straight back.
4. They decided there must be something dense and positive in the centre of the atom (the nucleus)

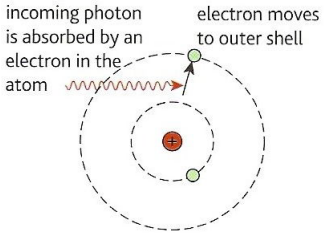


Half –life

The time it takes for the activity/count rate/mass of a sample to halve.



The half-life of this sample is 2 days.
The activity started at 80 Becquerel's and took 2 days to decrease by half to 40 Becquerel's.



Ionisation vs Excitation

Excitation: an electron absorbs energy and moves to a higher energy level.

Ionisation: an electron is removed from the atom.

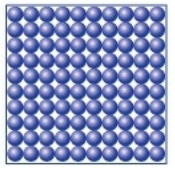
Energy stores
- Gravitational potential energy – stored in objects raised off the Earth's surface (due to their position on Earth)
- Kinetic energy – stored in a moving object
- Thermal energy – stored in hot objects
- Chemical energy – stored in fuel, batteries, foods
- Elastic potential energy – stored in objects that are stretched or squashed

Energy transfers
- Mechanical – when an object is moved by a force
- Sound, Light – By radiation/waves
- Electrical – By heating

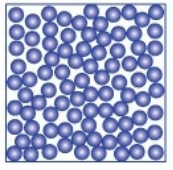
Subject Terminology	
Key Word	**Definition**
Repeatability	Measurements are repeatable when repeated by the same person, using the same method and give similar results.
Reproducibility	Measurements are reproducible if similar results are obtained by different investigators with different equipment.
Zero error	Caused when equipment is not set to zero
Random error	Results vary in unpredictable ways, reduce random error by taking repeats and calculating a mean.
Anomalous result	A result that does not fit the pattern. Ignore anomalous results when calculating a mean.
Non -renewable	An energy resource that cannot be replenished.
Renewable	An energy resource that can be replenished.

Arrangement and Behaviour of solids liquids and gases

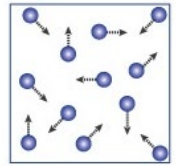
Solid particles are :
Tightly packed, regular pattern, most dense, vibrate around fixed positions, have the least internal energy, strong bonds between the particles



Liquid particles are:
Very close, random arrangement, dense, move freely over each other, have more energy than solids, less energy than gases, weak bonds between the particles



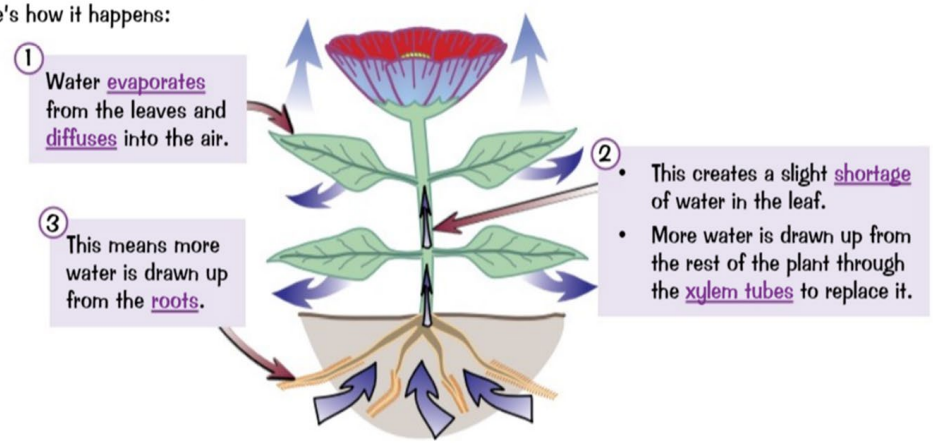
Gas particles are:
far apart, randomly arranged, least dense, move randomly in all directions, have the most energy, have no bonds between the particles



Subject: Science - Biology Topic: Biology Paper 1

Transpiration is the Loss of Water from the Plant

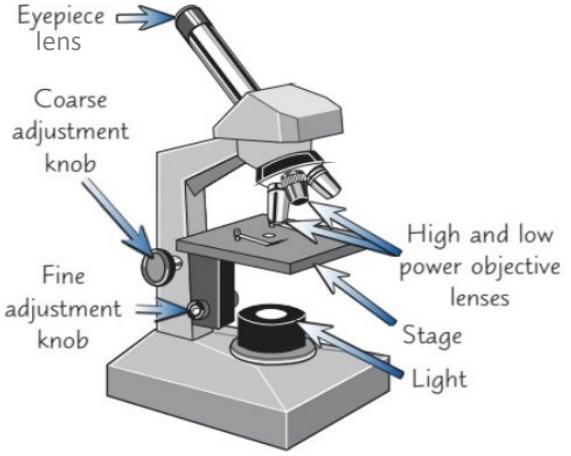
1) Transpiration is caused by evaporation and diffusion of water from a plant's surface (mainly the leaves).
2) Here's how it happens:



3) There's a constant stream of water through the plant. This is called the transpiration stream.

Microscopes core knowledge

Magnification = Image Size / Actual Image



Using a microscope method

1. Clip the slide to the stage
2. Start with the lowest magnification objective lens
3. Twist the coarse adjustment knob to move the stage up to just below the lens
4. Move the stage down until the image is in focus
5. Move the fine adjustment knob to get a clear image

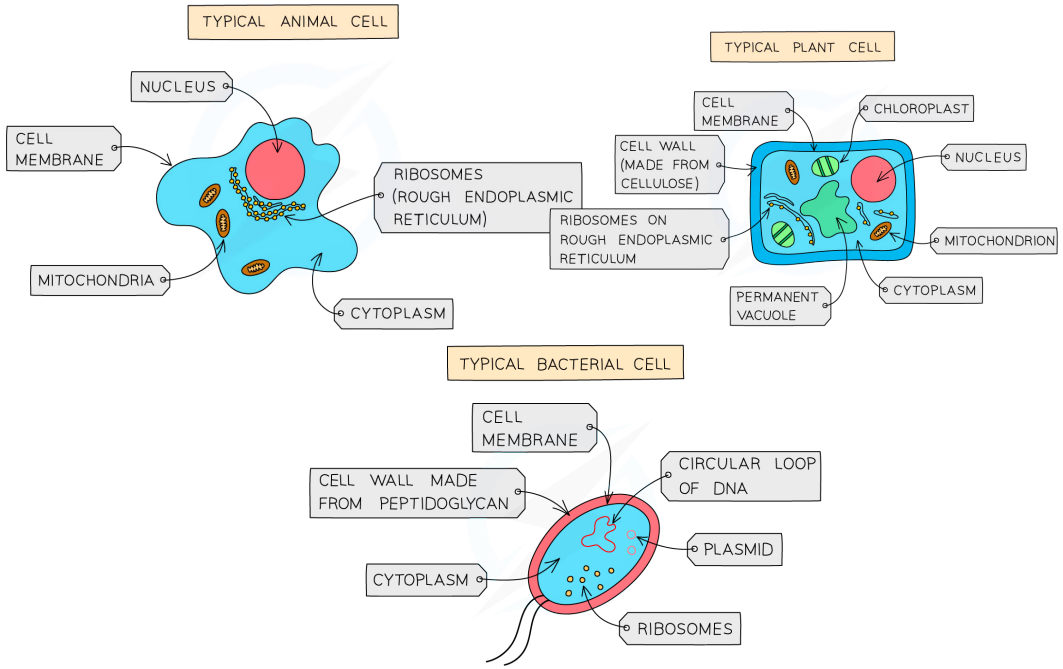
Length can have lots of units, including m, mm, and μm.

m ⇄ mm ⇄ μm (× 1000 / ÷ 1000)

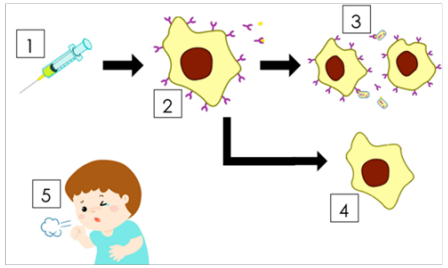
MULTIPLY to go from a bigger unit to a smaller unit.

Subject Terminology

Key Word	Definition
Resolution	The ability to distinguish between 2 points on a picture
Transpiration	The evaporation of water from a leaf through the stomata
Communicable disease	A disease that can be transmitted from person to person
Vaccine	A dead or inactive pathogen used in vaccination to develop immunity to a disease



How a vaccination works



1. Vaccination given
Injected with a small amount of dead or inactive pathogen

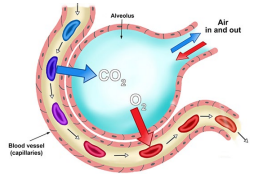
2. Antibodies produced
White blood cells produce antibodies to attack antigens

3. Attract more white blood cells
More white blood cells produce antibodies

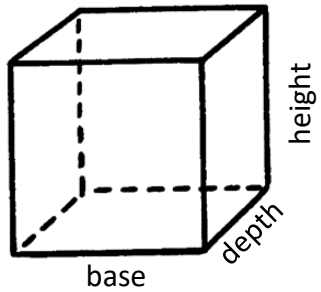
4. Memory cells
These cells stay in the blood in case we are infected in the future Infection with same pathogen later on

5. **White blood cells can quickly respond** and produce antibodies to kill pathogens

Exchange surfaces and specialised cells

Specialised cell / exchange surface	Function	Adaptations
Alveoli 	Gas exchange in the lungs. Oxygen moves into the blood and carbon dioxide moves out	Large surface area Short diffusion pathway Steep diffusion gradient
Root hair cells 	To absorb water and minerals from the soil in plants	Large surface area Short diffusion pathway Steep diffusion gradient

Surface area to volume ration of a cube



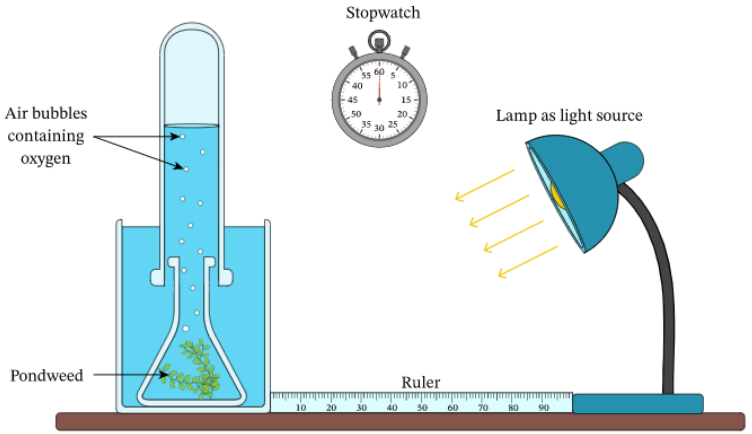
1. Calculate the surface area of 1 side of the cube by using base x height
2. A cube has 6 sides so to calculate the total surface area x the surface area of one side by 6.
3. Calculate the volume of the cube by doing base x height x width
4. Now divide surface area by the volume to get the ratio

Subject Terminology

Key Word	Definition
Photosynthesis	The process by which plants make glucose using carbon dioxide and water and energy from light
Limiting factor	Anything that slows down the rate of photosynthesis
Diffusion	The movement of particles from an area of high to low concentration
Alveoli	Tiny air sacs found in lungs that maximise the rate of gas exchange

Photosynthesis key practical

1. Set up a test tube rack containing a boiling tube at a distance of 10 cm away from the light source
2. Fill the boiling tube with the sodium hydrogen carbonate solution.
3. Place the piece of pondweed into the boiling tube with the cut end uppermost. Gently push the pondweed down with the glass rod.
4. Leave the boiling tube for 5 minutes.
5. Start the stop watch and count the number of bubbles produced in one minute
6. Record the results in a table
7. Repeat the count twice more so that the mean number of bubbles per minute can be calculated.
8. Move the test tube rack to a distance of 20 cm from the light source and repeat steps 4–6.
9. Repeat using distances of 30 cm and 40 cm between the test tube rack and the light source.



Independent variable = Light intensity

Dependent variable = Number of bubbles per minute

Control variables = Temperature (L.E.D), concentration of sodium hydrogen carbonate solution, same pondweed cutting

Unit 2c

The Challenge of Resource Management

Resource Challenges

Resources are things that humans require for life or to make our lives easier. Humans are becoming increasingly dependent on exploiting these resources, and as a result they are in high demand.

Significance of Water

Resources such as food, energy and water are what is needed for basic human development.

FOOD	WATER	ENERGY
Without enough nutritious food, people can become malnourished. This can make them ill . This can prevent people working or receiving education.	People need a supply of clean and safe water for drinking, cooking and washing. Water is also needed for food, clothes and other products.	A good supply of energy is needed for a basic standard of living. People need light and heat for cooking or to stay warm. It is also needed for industry.

Demand outstripping supply

The demand for resources like food, water and energy is rising so quickly that supply cannot always keep up. Importantly, access to these resources vary dramatically in different locations

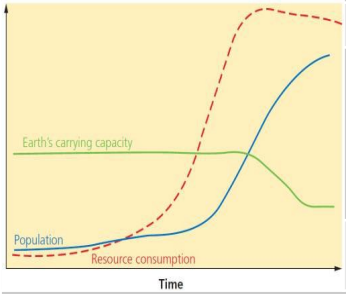
1. Population Growth

- Currently the global population is 7.3 billion.
- Global population has risen exponentially this century.
- Global population is expected to reach 9 billion by 2050.
- With more people, the demand for food, water, energy, jobs and space will increase.

2. Economic Development

- As LICs and NEEs develop further, they require more energy for industry.
- LICs and NEEs want similar lifestyles to HICs, therefore they will need to consume more resources.
- Development means more water is required for food production as diets improve.

Resource Reliance Graph



Consumption – The act of using up resources or purchasing goods and produce.
Carry Capacity – A maximum number of species that can be supported.

Resource consumption exceeds Earth's ability to provide!

3. Changing Technology and Employment

- The demand for resources has driven the need for new technology to reach or gain more resources.
- More people in the secondary and tertiary industry has increased the demand for resources required for electronics and robotics.

Food in the UK

Growing Demand

- The UK imports about 40% of its food. This increases people's carbon footprint.
- There is growing demand for greater choice of exotic foods needed all year round.
- Foods from abroad are more affordable.
- Many food types are unsuitable to be grown in the UK.

Impact of Demand

Foods can travel long distances (food miles). Importing food adds to our carbon footprint.
+ Supports workers with an income
+ Supports families in LICs.
+ Taxes from farmers' incomes contribute to local services.
- Less land for locals to grow their own food.
- Farmers exposed to chemicals.

Agribusiness

Farming is being treated like a large industrial business. This is increasing food production.
+ Intensive faming maximises the amount of food produced.
+ Using machinery which increases the farms efficiency.
- Only employs a small number of workers.
- Chemicals used on farms damages the habitats and wildlife.

Sustainable Foods

Organic foods that have little impact on the environment and are healthier have been rising.
Local food sourcing is also rising in popularity.

- Reduces emissions by only eating food from the UK.
- Buying locally sourced food supports local shops and farms.
- A third of people grow their own food.

Energy in the UK

Growing Demand

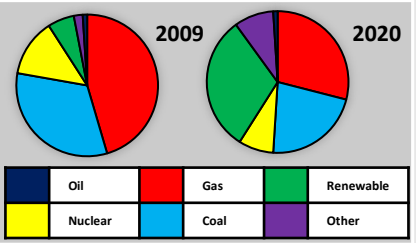
The UK consumes less energy than compared to the 1970s despite a smaller population. This is due to the decline of industry.

Energy Mix

The majority of UK's energy mix comes from fossil fuels. By 2020, the UK aims for 15% of its energy to come from renewable sources. These renewable sources do not contribute to climate change.

Changes in Energy Mix

- 75% of the UK's oil and gas has been used up.
- Coal consumption has declined.
- UK has become too dependent on imported energy.



Water in the UK

Growing Demand

The average water used per household has risen by 70%. This growing demand is predicted to increase by 5% by 2020.
This is due to:

- A growing UK population.
- Water-intensive appliances.
- Showers and baths taken.
- Industrial and leisure use.
- Watering greenhouses.

Deficit and Surplus

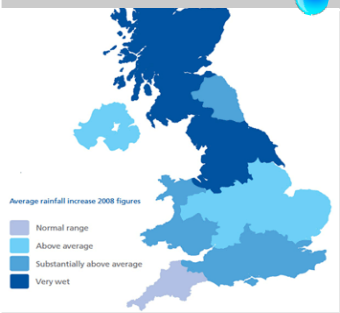
The north and west have a water surplus (more water than is required).
The south and east have a water deficit (more water needed than is actually available).
More than half of England is experiencing water stress (where demand exceeds supply).

Pollution and Quality

Cause and effects include:

- Chemical run-off from farmland can destroy habitats and kills animals.
- Oil from boats and ships poisons wildlife.
- Untreated waste from industries creates unsafe drinking water.
- Sewage containing bacteria spreads infectious diseases.

Water stress in the UK



Management

UK has strict laws that limits the amount of discharge from factories and farms.
Education campaigns to inform what can be disposed of safety.
Waste water treatment plants remove dangerous elements to then be used for safe drinking.
Pollution traps catch and filter pollutants.

Water Transfer

Water transfer involves moving water through pipes from areas of surplus (Wales) to areas of deficit (London).
Opposition includes:

- Effects on land and wildlife.
- High maintenance costs.
- The amount of energy required to move water over long distances.

Energy in the UK (continued)

Significance of Renewables

+ The UK government is investing more into low carbon alternatives.
+ UK government aims to meet targets for reducing emissions.
+ Renewable sources include wind, solar and tidal energy.
- Although infinite, renewables are still expensive to install.
- Shale gas deposits may be exploited in the near future

Exploitation

Nuclear	New plants provide job opportunities. Problems with safety and possible harm to wildlife. Nuclear plants are expensive.
Wind Farm	Locals have low energy bills. Reduces carbon footprint. Construction cost is high. Visual impacts on landscape. Noise from wind turbines.

Option 1: FOOD

Food Security is when people at all times need to have physical & economic access to food to meet their dietary needs for an active & healthy life. This is the opposite to Food Insecurity which is when someone is unsure when they might next eat.

Human

- Poverty prevents people affording food and buying equipment.
- Conflict disrupts farming and prevents supplies.
- Food waste due to poor transport and storage.
- Climate Change is affecting rainfall patterns making food production difficult.

Physical

- The quality of soil is important to ensure crops have key nutrients.
- Water supply needs to be reliable to allow food to grow.
- Pest, diseases and parasites can destroy vast amounts of crops that are necessary to populations.
- Extreme weather events can damage crops (i.e. floods).

Increasing Food Supply

Hydroponics - A method of growing plants without soil. Instead, they use nutrient solution.
New Green Revolution - Aims to improve yields in a more sustainable way. Involves using both GM varieties and traditional and organic farming.
Biotechnology - Genetically modified (GM) crops changes the DNA of foods to enhance productivity and properties.
Irrigation - Artificially watering the land so crops can grow. Useful in dry areas to make crops more productive.

Sustainable Food Supply

This ensures that fertile soil, water and environmental resources are available for future generations.

Organic Farming - The banned use of chemicals and ensuring animals are raised naturally.
Permaculture - People growing their own food and changing eating habits. Fewer resources are required.
Urban Farming - Planting crops in urban areas. i.e. roundabouts.
Managed Fishing – Includes setting catch limits, banning trawling and promoting pole and line methods.

C.S. Almeria, Spain

Located in Almeria, the site involves huge greenhouses using hydroponics.

Advantages: low energy costs due to year-round warm weather. Jobs created in the local area. Produce is cheaper for the consumers. Multiplier effect has happened in the area.

Disadvantages: waste is a big issue in and around Almeria. Natural water sources are being used faster than they can be replaced. Natural ecosystems have been destroyed by the greenhouses.

C.S. NEE- Jamalpur, Bangladesh Rice and Fish Farming

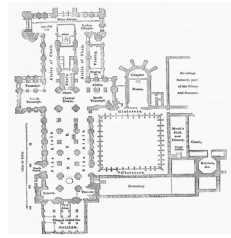
Rice and fish are cultivated in the same field. The fish eat pests and weeds which allows to rice to thrive as well as producing fertiliser from their waste.

Advantages
The fish provides a valuable supply of protein for the local people, so improving their health.
The increased rice yield not only helps to feed the farmers' families, but also provides a surplus to sell at market, so increasing their incomes.
This sustainable method of farming increases food production without the use of increased artificial chemicals or impacting on the local environment

Disadvantages
Very small scale so only a small number of farmers can benefit.
Takes a long time to set up.
Farms can easily be damaged or destroyed by flooding.

Historic Environment 2025 – Durham Cathedral

Durham Cathedral is an example of a cathedral built in the Norman, or Romanesque, architectural style. Churches in Normandy before 1066 were of a moderate size, but the wealth was available in newly-conquered England to build on a truly grand and impressive scale.



Why did the Normans build cathedrals like Durham?

Architectural Style - Durham was similar to nearly all the new cathedrals built after the Norman Conquest and was designed to impress both externally and internally.	In a Romanesque style, Durham with decorated patterned columns, and capitals with simple carved mouldings. These design features gave an imposing impression and sense of grandeur to visitors. Their simplicity also meant they were easier to produce and this sped up construction.	The nave was a vast space with the altar placed at the eastern end of the cathedral. A massive tower was built above a central crossing place between transepts on either side, which could be used as special chapels. The cathedral also had a stone vaulted ceiling which gave height and light to the building. It created a sense of awe and wonder.	St Peter's Basilica in Rome also had an influence as the original length of Durham Cathedral and its nave is almost the same while the spiral columns at Durham closely match those around the canopy of St Peter's Shrine. In this way William of St Calais was providing a fitting place for the body of St Cuthbert.	The master craftspeople who crossed the channel from France to work on Durham Cathedral also brought their own style from Normandy which Anglo-Saxon crafts people learned from. The arches in the cathedral at Durham are characteristic of Norman architecture, being round and resting on capitals at the top of the load bearing columns.
Religious devotion and reform	Durham was an important religious site before the Norman Conquest, as the Anglo Saxons had built a church there as a shrine to St Cuthbert. His remains were kept at the cathedral.	William Walcher attempted to introduce Benedictine Monks to Durham and build monastic buildings. He wanted to change the way monks worshipped at Durham.	William of Saint Calais ordered the building of the new Norman cathedral at Durham. He was a Benedictine monk and leader of an abbey in France. He was determined to reform the monks at Durham and make them more like Norman Monks.	William of Saint Calais wanted to end 'unclean living' within the church such as some of the monks having wives and children. He replaced most of these monks with monks from Calais. These monks lived to much stricter standards with regular services and patterns of worship. These reforms were supported by Prior Turgot the leader of the monastic community at Durham.
Control of the Local Population - Durham was well placed to deal with threats of rebellion. It was for this reason that the Prince Bishop was based at Durham and given extensive military and political power over the region as well as religious authority.	The cathedral represented a spiritual power and suggested that to resist Norman authority was to go against the will of God. Bishop Æthelwine was a useful man to have as Bishop of Durham because of his good relations with Malcolm, King of Scotland, and William was to use him as a go-between when negotiating peace with the Scottish king.	After the Norman Conquest, Robert de Comines, the new Norman Earl of Northumbria ignored Æthelwine's warnings about the dangers of the area, with disastrous results. De Comines was trapped and burned to death in the bishop's house in January 1069 which, along with the rebellion that followed, prompted William to retaliate with the savage 'Harrying of the North'	William saw the church as a source of power. The Bishops and heads of monasteries were the church's tenants in chief and they controlled large areas of land. They needed to be loyal supporters of William. He used pre-existing Anglo-Saxon Bishops to accept the new Norman conquerors. However, they were gradually replaced by Norman bishops who were trusted.	The Normans also created new bishoprics which were areas a bishop was responsible for. This bishoprics became flourishing urban communities that were defensible. These areas allowed for a more structured system of church governance and administration.
To influence culture and learning	The Benedictine monks improved levels of literacy and learning. William of St Calais donated a vast library of books to the monks at Durham.	There was a greater use of Latin as the language of religious life.	There was also a change to the manuscripts produced by monks. There was more use of illustrations which became important in announcing the new regime and impressing the Anglo-Saxons.	These changes to culture not only affected sculptors and illustrators but embroiderers, metalworkers and ivory carvers.

Key People	Role
St Cuthbert	Cuthbert was a Northumbrian monk with a great reputation for Christian holiness who, after his death in 687, had many miracles attributed to him.
Prince Bishop	Prince Bishops had the combined power of a Bishop and an Earl. They owned vast estates, could raise an army, mint coins and levy taxes. It was a position of great wealth and independent power.
Æthelwine	The Bishop of Durham from 1056 to 1071. Æthelwine remained as Bishop of Durham after 1066 and pledged his loyalty to the new Norman King when William came to York in 1068.
William Walcher	The Bishop of Durham from 1071 to 1080.
William of Calais	The Bishop of Durham from 1080 after the death of William Walcher. He died in 1096.
Ranulf Flambard	The Bishop of Durham from 1069.
Prior Turgot	The Prior of the monastery at Durham Cathedral.

Half-Term 3

Topic: Revision

Steps to War	
Germany in the 1930's	Nazi party in charge – want to tear up TOV so: - Left the League of Nations, - Rearm and rebuild the military, - Plan to build a new German empire but need space (lebensraum) from other countries. - Wanted to unify all German people into one country. - Wider context - Manchuria Crisis (Japan invade China) – 1931
March 1935	Hitler violates the Treaty of Versailles by introducing military conscription. - Wider context – Invasion of Abyssinia by Italy.
Rhineland Crisis March 1936	German soldiers not supposed to enter border area between France and Germany. Hitler sends in the army. France and Britain unhappy but don't want war. Also Germans still keep to their side of the border.
Unification with Austria March 1938	Hitler bullies Austria into joining with Germany (Anschluss). TOV bans this, but LON can't do much to stop it.
Sudetenland Crisis Sep 1938	Hitler wants to take over the border around Czechoslovakia because 3 million Germans live there. Using false accusations of violence against the Germans, Hitler's army entered Czechoslovakia and occupied the area. In a **conference in Munich** in September of 1938 France, Great Britain and Italy agree to German occupation of the Sudetenland in return for promise of peace and no more territorial demands. (Munich Agreement). France wants war, but Britain not ready. Instead, British PM (Chamberlin) gives Hitler what he wants in the hope that Hitler will stop. This was called appeasement.
Invasion of Czechoslovakia	In March 1939 Hitler occupies the rest of Czechoslovakian territory, totally disregarding the Munich Agreement.
Nazi-Soviet Pact 1939	An agreement between Nazi Germany and the Communist USSR. Germany and the USSR both agreed that the other could control half of Poland (Poland did not agree).
Germany invaded Poland 1939	After the success in Munich Hitler started making similar demands from Poland. He demanded the so called Polish Corridor and was trying to convince the Polish government to cooperate with Germany against USSR. When Polish government refused Hitler decided to attack.
Britain declares war on Germany 1939	On the 3rd September 1939 Great Britain declared war on Germany.

Why the Homesteaders went West:	
The Actions of the US government:	- The US government recognised the need to populate the West and to help achieve this the Homestead Act was passed in 1862. Intended to encourage people to settle in the West by allowing each family 160 Acres of Land for free. - Other acts were: - Timber Culture Act – 1873 & - The Desert Land Act, 1877
The end of the American Civil War:	Thousands of Demobilised soldiers and their families were looking to rebuild their lives. Thousands of newly freed black slaves were looking for new beginnings. They looked West and became homesteaders', cowboys, miners, soldiers and railway builders.
The building of the transcontinental railroads:	The US government had long wanted to build a transcontinental railroad to link east and west. In 1860's two companies started building the Northern Route and they met at Promontory Point in Utah in 1869. This had three effects: 1. Easy for homesteaders to get to the Plains. 2. Cheap to buy land (railroads sold off the land either side cheaply) 3. Railroad could bring new machinery quickly to the Plains.
Reservations for Plains Indians.	Usually established on worthless land, far from their original territory and often with other unfriendly tribes in the same area. Only survived by being fed by the government on a fraction of the promised ration.
Dawes General Allotment Act (1887)	Dawes Act parcelled out tribal lands, broke reservations up into allotments. Heads of family were assigned 160 acres, single adults 80 acres and children 40 acres. They (Plains Indians) also got US citizenship. Remaining land was thrown open to White Settlers. Indian schools were established from the sale of land. – Disaster for Native Americans.
Ghost Dance	New religious movement incorporated into numerous Native American belief systems. Wovoka taught the special Ghost Dance that could raise the dead and bring a new world, free from settlers.
Total War	Waging a war against a whole enemy population, not just the fighting troops. It meant destroying all the food, shelter, clothing, possession and animals of the Plains Indians.
Buffalo Slaughter	This forced the Native Americans to accept reservations – Buffalo were slaughtered in large numbers by White Settlers. They were killed to feed soldiers and railroad construction workers. People also killed them for their skins. Others just killed them for sport – shooting them from windows of trains.
Battle of Little Bighorn	US Army was sent to oppose the uprising. Custer and his men arrived first and decided to attack. Custer and his 220 soldiers were surrounded by the Indians and Custer and all his men were killed. Greatest Native American victory in the battle against the US army.
Battle of Wounded Knee	Last confrontation between Native Americans and the US army. The Ghost Dance had built up into a frenzy. Tension peaked at Pine Ridge Reservation in Wounded Knee Creek. Troops tried to disarm a band of Sioux led by Chief Big Foot when a warrior fired. Soldiers fired back, killing 52 people. In total 150 Sioux died (about 60 of them women and children) and 25 soldiers.

Hitler was to blame	**Appeasement**	**Failure of the LoN**	**Failure of the LoN**	**Nazi Soviet Pact**	**The Depression**	**T of Versailles**
In Mein Kampf Hitler vowed to overturn ToV & take Lebensraum (living space). This was the basis of his foreign policy and meant he would have to invade countrries. He also vowed to make Germany Strong again.	The policy of apeasement aimed to prvent another war and is linked particulary with Chamberlain. Many believe he made a mistake by trusting Hitler. Britan and France could have stopped Germany but many opportuniites to do so were missed.	Its strucutre and organisation made the League weak. Its lack of army ment it could not force nations to comply. Membership – countries could leave, the USA never joined and USSR and Germany were not allowed to join at first.	Manchuria showed that the League was weak and would not deal with a member of the council. Abyssinaia showed Britain and France undermined it easily. Weakness of the league gave confidence to others.	Stalin felt alienated by the Munich Agreement and this encouraged him to sign the pact even though he and Hitler hated each other. It was a truce to agree to share Poland and would help Hitler avoid a war on two fronts – made Hitler more confident.	The Wall Street Crash and subsequent depression made countires around the world look inwards and desperate to sort their own problems. Less international co-operation and desperate people turned to extremist parties and leaders.	By the 1930's many people believed that Germany had been treated too harshly including Britain. As a result they didn't stop the steps Hitler was taking. Hitler promised to overturn the T of V and reunite all German speaking speoples in a Greater Germany.

Spanish

Speaking **End of April** **12 minutes before exam – preparation for role play and photocard**	**Listening** **Tuesday 10th June AM** **Foundation – 35 minutes** **Higher – 45 minutes**	**Reading** **Tuesday 10th June AM** **Foundation - 45 minutes** **Higher – 1 hour**	**Writing** **Tuesday 17th June PM** **Foundation – 1 hour** **Higher – 1 hour 15 mins**
- Role play – stay simple, ! = something you are not expecting, ? = ask a question **- Photocard – 5 questions on topic (topic in bold print above photo) extend your answers, give lots of opinions** **- General conversation – answer questions on 2 themes. Don't forget to ask me a question! (3-5 mins foundation) (5-7 mins higher)** **Theme 1 – family, technology, free time, festivals** **Theme 2 – Holidays, House and Town, Social and Global Issues** **Theme 3 – School, jobs**	**5 minutes before exam to read through paper. Annotate questions, highlight question words.** **Make sure you answer in the correct language!** **Listen to each recording TWICE. Listen to tone of voice.** **Remember synonyms – caballo = equitación** **Piscina = nadar = natación** **Idiomas = lenguas = español = francés** **Don't leave any gaps, lots of multiple choice.** **True / False / Not Mentioned** **Past / Present / Future** **Positive / Negative / P and N** **Write a logical answer if you aren't sure.**	**Remember Skim – Scan – Zoom** **Look for answers in chronological order.** **Read titles, look at pictures for support.** **Don't leave any gaps, lots of multiple choice.** **True / False / Not Mentioned** **Past / Present / Future** **Positive / Negative / P and N** **Don't forget translation – 9 marks on the last page! Check tenses.** **-mente = ly in English normalmente** **-dad = ty in English universidad, individualidad**	**Foundation** **Photo – 4 simple sentences – En la foto HAY** **40 words – 4 extended opinions or present tense sentences. You MUST answer all 4 bullet points** **Translation – try your best on these 5 sentences.** **Foundation / Higher** **90 words – (Choice of 2 questions)** **4 bullet points (past, present, future, opinions). You MUST answer all 4 bullet points.** **Past – fui, visité, compré comí, bebí** **Present – verbs end in O** **Future – planeo, si fuera posible me gustaría** **Higher** **150 words – (choice of 2 questions)** **2 bullet points – you must develop, using range of structures and tenses** **Translation – 50 words into English**
How do I revise for my speaking exam?	**How do I revise for my listening exam?**	**How do I revise for my reading exam?**	**How do I revise for my writing exam?**
Past papers available on AQA website **Subjects – Languages – GCSE – Spanish (8698) – Assessment resource** **You have questions and suggested answers for all 3 themes. You must learn these!** **If you have lost these – they are on Teams, Class Charts, ask me for another copy** **Photocard practice – booklet on Spanish Revision on Teams** **Attend Spanish revision classes after school Tuesday**	**Past papers available on AQA website** **Subjects – Languages – GCSE – Spanish (8698) – Assessment resource** **Listening practice questions – available on Spanish Revision on Teams, Foundation and Higher, audio and answers included** **CPG – practice book** **Memrise – vocabulary practice** **GCSE bitesize** **Duolingo** **Attend Spanish revision classes after school Tuesday**	**Past papers available on AQA website** **Subjects – Languages – GCSE – Spanish (8698) – Assessment resource** **Reading practice questions – available on Spanish Revision on Teams, Foundation and Higher** **CPG – practice book** **Memrise – vocabulary practice** **GCSE bitesize** **Duolingo** **Attend Spanish revision classes after school Tuesday**	**Past papers available on AQA website** **Subjects – Languages – GCSE – Spanish (8698) – Assessment resource** **Writing practice questions – available on Spanish Revision on Teams, Foundation and Higher** **CPG – practice book** **Memrise – vocabulary practice** **GCSE bitesize** **Attend Spanish revision classes after school Tuesday**

	PRESENT I do (add to stem)	**PRETERITE** I did (add to stem)	**IMPERFECT** I was doing (add to stem)	**CONDITIONAL** I would do (add to infin)	**FUTURE** I will do (add to infin)	**PERFECT** I have done	**PRESENT CONTINUOUS** I am doing
	AR ER IR	AR ER/IR	AR ER/IR	AR/ER/IR	AR/ER/IR	AR> ado ER/IR> ido	AR> ando ER/IR> iendo
I	o o o	é í	aba ía	ía	é	he ……ado	estoy ……ando
You	as es es	aste iste	abas ías	ías	ás	has……ado	estás ……ando
He	a e e	ó ió	aba ía	ía	á	ha……ado	está ……ando
We	amos emos imos	amos imos	ábamos íamos	íamos	emos	hemos……ado	estamos ……ando
You.pl	áis éis ís	asteis isteis	abais íais	íais	éis	habéis……ado	estáis ……ando
They	an en en	aron ieron	aban ían	ían	án	han……ado	están ……ando
Some common I R R E G U L A R S	ir> voy ser>soy dar>doy estar>estoy hacer>hago tener>tengo poner>pongo salir>salgo	ir>fui ser>fui dar>di estar>estuve hacer>hice tener>tuve poner>puse saber>supe	ser>era ir>iba hay>había	Same as future tener>tendría venir>vendría poner>pondría salir>saldría saber>sabría poder>podría haber>habría decir>diría querer>querría	Same as conditional tener>tendré venir>vendré poner>pondré salir>saldré saber>sabré poder>podré haber>habré decir>diré querer>querré	abrir>abierto escribir>escrito hacer>hecho poner>puesto romper>roto ver>visto volver>vuelto	dormir>durmiendo seguir>siguiendo sentir>sintiendo vestir>vistiendo

GCSE DANCE KNOWLEDGE ORGANISER

EXAM COMMAND WORDS

Analyse: Separate information into components and identify characteristics to be able to explain and interpret.

Comment: Present an informed option.

Compare: Identify similarities and/or differences.

Consider: Review and respond to information given.

Define: Specify meaning.

Describe: Set out characteristics.

Discuss: Present key points taking into account different ideas, characteristics and/or features.

Evaluate: Judge from available evidence and make an informed design on the effectiveness.

Explain: Set out purposes or reasons.

Give: Produce an answer from recall.

How: State in what ways.

Identify: Name or characterise.

Interpret: Translate information into recognisable form demonstrating an understanding of meaning.

Name: Identify correctly.

Outline: Set out main characteristics.

State: Express in clear terms.

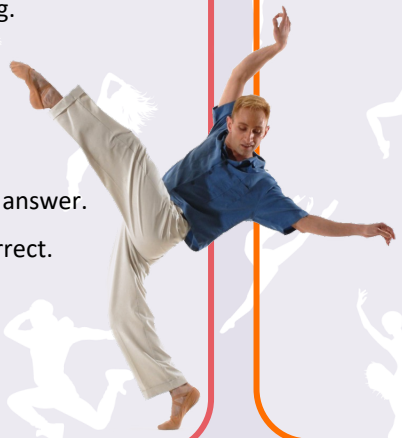
Suggest: Present a possible case or possible answer.

Tick: Put a mark to indicate something is correct.

What: Specify something.

Which: Specify from a range of possibilities.

Why: Give a reason or purpose.



KNOWLEDGE, UNDERTSANDING AND SKILLS FOR PERFORMANCE

Expressive skills

Projection
Focus
Spatial awareness
Facial expression
Phrasing
Musicality
Sensitivity to other dancers
Communication of choreographic intent

Physical skills

Posture
Alignment
Balance
Coordination
Control
Flexibility
Mobility
Strength
Stamina

Technical skills

Action
Space
Dynamics
Relationships
Timing
Rhythmic content
Moving in a stylistically accurate way

Mental Skills

Prep for performance:
Systematic repetition
Mental rehearsal
Rehearsal discipline
Planning of rehearsal
Response to feedback
Capacity to improve

During performance:
Movement memory
Commitment
Concentration
Confidence

Safe Practice

Prep for performance:
Warming up
Cooling down
Nutrition & Hydration

During performance:
Safe execution

Appropriate dance wear:
Footwear
Hairstyle
Clothing
Absence of jewellery

GCSE DANCE KNOWLEDGE ORGANISER

KNOWLEDGE, UNDERTSANDING AND SKILLS FOR CHOREOGRAPHY

Action
Travel
Turn
Elevation
Gesture
Stillness
Use of different body parts
Floor work
Transfer of weight

Dynamics
Fast/slow
Sudden/sustained
Acceleration/deceleration
Strong/light
Direct/indirect
Flowing/abrupt

Spatial Content
Pathways
Levels
Direction
Size of movement
Patterns
Spatial design

Relationship Content
Lead and follow
Mirroring
Action and reaction
Accumulation
Complement and contrast
Counterpoint
Contact
Formations

Choreographic Processes
Researching
Improvising
Generating
Selecting
Developing
Structuring
Refining and synthesising

Structuring devices and form
Binary
Ternary
Rondo
Narrative
Episodic
Beginning/middle/end
Unity
Logical sequence
Transitions

Choreographic devices
Motif and development
Repetition
Contrast
Highlights
Climax
Manipulation of number
Unison
Canon

KNOWLEDGE, UNDERTSANDING AND SKILLS FOR CRITICAL APPRECIATION

Features of Production

Staging/set: Eg. projection, furniture, structures, backdrop, screens
Features of these such as colour, texture, shape, decoration, materials.
Lighting: Eg- Colour, placement, direction, angles etc.
Properties: Eg- Size, shape, materials, how used etc.
Costume: Footwear, masks, make up, accessories
Features such as colour, texture, material, flow, shape, line, weight, decoration and how they define character or gender, identify characters, enhance or sculpt the body and enhance the action.
Dancers: Number and gender.
Aural setting: Eg: Song, instrumental, orchestral, spoken word, silence, natural sound, found sound, body percussion, style, structure and musical elements such as tone, pitch and rhythm.
Dance for camera: Eg- Placement, angle, proximity, special effects.

CHOREOGRAPHY KEY WORDS

Stimulus
The starting point for a dance piece.

Motif
A short phrase of movement that reflects a stimulus.

Choreographic Intention
What the choreographer would like the audience to learn about the dance.

Choreographic Approach
How the choreographer created movement material eg. improvisation, collaboration, choreographic tasks.

Communication of Choreographic Intent
Mood
Meaning
Idea
Theme Style/style fusion

Performance Environment
Proscenium arch
End stage
Site-sensitive
In-the-round

Eduqas GCSE Music – Keywords Sheet

Melody & Performance

Conjunct – stepwise melody movement (notes next to each other)
Disjunct – melodic movement containing leaps (intervals of more than 2 notes)
Sequence – repetition of a melodic phrase at a higher or lower pitch
Scalic – ascending or descending stepwise melodic movement within the notes of a scale
Triadic – a melody consisting of the notes of a chord.
Chromatic(ism) – use of semitones / *accidentals* or *atonal* melodic passages.
Pentatonic – melody uses the notes of a pentatonic scale: I (tonic major) II III V VI (relative minor)
Staccato – short separated notes ('detached')
Legato – smooth joined notes ('tied together')
Pizzicato – plucking the strings
Con Arco – strings played with the bow
Glissando – sliding from one pitch to another
Ornamentation – Melodic decoration
Trill – a continuous rapid alteration of a note with the note immediately above or below it in the scale.
Turn – A short figure consisting of the note above the one indicated, the note itself, the note below, then the note itself again.
Mordent - a single rapid alteration of a note with the note immediately above or below it in the scale.
Appoggiatura – a grace note which hdelays the next note of the melody, taking half of it's written time value.
Acciaccatura – a grace note performed as quickly as possible before an essential note of a melody.

Harmony & Tonality

Major or Minor key – uses a 7 note scale, referred to as *diatonic*
Modal – diatonic (7 note scales) that are not necessarily major or minor.
Atonal – *chromatic* music with no clear key, can use all 12 notes.

Accidentals – using a note outside of the scale (key), it is indicated by a sharp/flat/natural sign by the note on a score. *Blues notes* in Jazz music.
Consonant – when two notes of a chord go well together
Dissonance – when two notes that clash are played together, also *discordant.*
Chordal movement – parts moving together in harmony (block chords)
Parallel 3rds – also referred to as 'close harmony', it is where two parts move together at an interval of a 3rd.
Inversion – playing the notes of a triad in a different order (also turning a melodic idea/interval upside down).
Contrary motion – two parts move away from each other (i.e. one ascends, the other descends)

5th chords – also *power chords.* A chord consisting of only notes I and V.
7th chords - chords where the 7th note (above the root of the chord) is added
Broken chords – notes of the chord are played separately
Arpeggio – a type of broken chord where the notes are played in ascending/descending order
Alberti Bass – a bassline common in Baroque period where the notes of a chord are played in the order 'bottom – top – middle – top'

Cadence – a progression of two chords at the end of a phrase
Perfect – V I
Plagal – IV I
Imperfect – ends on V (sounds incomplete)
Interrupted – (usually) chord V followed by a chord other than I.

Texture

Monophonic – single melody line
Unison – all parts play the same melody
Octaves – parts play the same notes in different octaves

Homophonic – parts move together in harmony (chords) or…
Melody & Accompaniment – one part plays the melody and other parts accompany (e.g. with chords)
Harmony – two parts moving together at different pitches

Heterophonic – parts play different versions of the same melody

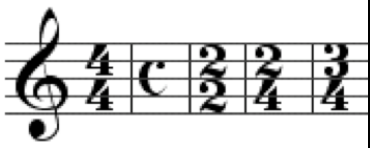
Polyphonic – Two or more different melodies played at the same time. Also referred to as:
Counterpoint or Contrapuntal
Countermelody – (name given to 2nd melody line)
Imitation – when one instrument/voice copies another part

Antiphonal – Call & Response where the answer is the same or similar to the call.

Other descriptive words: sparse / thick / thickens / thins out / layering

Rhythm & Metre

Time signature – The top number indicates the number of beats in a bar, the bottom number indicates the value of each beat:
2 = minim beats
4 = crotchet beats
8 = quaver beats
16 = semi-quaver beats
C = common time (4/4)



On the beat – *strong beats* are emphasised
Syncopation – *weak beats* are emphasised
Polyrhythm – two different rhythms played against each other
Triplet – 3 equal value notes played in the time of two.
Dotted notes – the value of a note is increased by half its value
Triple time – three beats per bar
Compound time – each beat is worth a dotted value (e.g 6/8 with a 2 beat feel)
Swing style (swung quavers) – use of uneven quavers to create a triplet/dotted rhythm feel.
Anacrusis – where the 1st note of a phrase comes before the 1st beat of a bar.
Push rhythm – where the note is played early.
Flam – two quick (almost simultaneous) drum hits
Augmentation – where the note lengths of a melody/rhythm are increased (doubled)
Diminution – where the note lengths of a melody/rhythm are shortened (halved).

Dynamics & Tempo

Dynamics

Fortissimo *ff* **–** very loud
Forte *f* – loud
Mezzo-forte *mf* – quite loud ('half loud')
Mezzo-piano *mp* – quite soft
Piano *p* – soft
Pianissimo *pp* – very soft
Crescendo *cresc.* – gradually get louder <
Diminuendo *dim.* – gradually get softer >
Accent – the note or chord is emphasised / stressed (played louder).
Sforzando *sfz* – a sudden, forced accent on a note/chord.
Sotto voce – a dramatic lowering of dynamics (very softly)

Tempo

Adagio - slow
Lento – slowly
Andante – walking pace
Moderato – moderate tempo
Allegretto – quite fast
Allegro – fast
Vivace – lively
Presto – very fast
Accelerando *(accel.)* – gradually increase tempo
Ritardando *(rit.)* – Gradually decrease tempo
Rallentado *(rall.)* – slowing down (more dramatic than a *rit.*)
Rubato – perform with rhythmic freedom
Fermata – pause mark – note is prolonged at the discretion of the performer

Structure

Popular Music

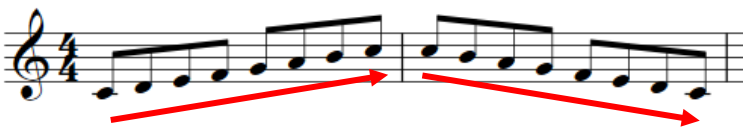
Verse-Chorus – Verses with different lyrics, chorus has same lyrics each time. Can also include: *Intro, Pre-Chorus, Bridge/Middle 8/Instrumental, Outro*
Strophic Form – verses only (same melody, different lyrics each time)
12-Bar Blues – common chord structure used in blues and jazz. The chords can be substituted or 7th chords used.
Basic chord sequence:
I I I I
IV IV I I
V IV I I

Classical Music

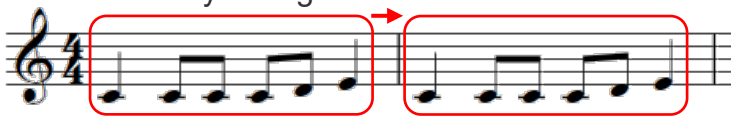
Binary form *AB*
Ternary form *ABA*
Rondo form *ABACADA*
Symphony – usually written for an orchestra, comprising 4 movements. The 1st movement is usually *sonata form*, followed by a slow movement, then a 3rd movement such as a *minuet*, finishing with a *sonata* or *rondo.*
Sonata form – 3 sections: *exposition* where 2 ideas are introduced; *development* where the ideas are explored; *recapitulation* an altered repeat of the exposition.
Coda – classical version of 'outro'
Minuet and trio – fairly fast movement in 3/4. Minuet (A) followed by Trio (B) and then ending with the Minuet.
Fugue – a *contrapuntal* composition using imitation. Starts with an *exposition* where the initial ideas are heard on the different instruments, followed by an *episode* where developed material is played in related keys (e.g. dominant).

MELODY

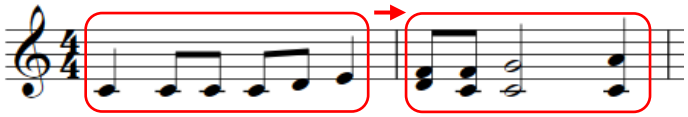
Direction Rising Falling



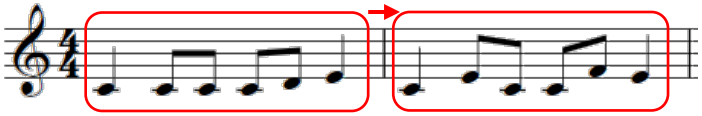
Repetition Doing the same thing again, without any changes.



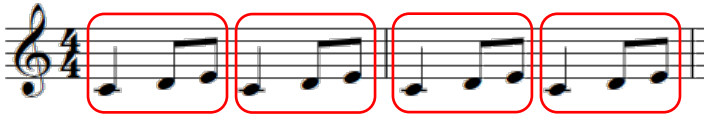
Contrast Doing something completely different.



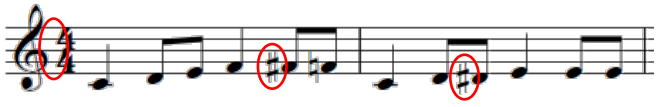
Imitation Doing the same thing again, with some changes (similar).



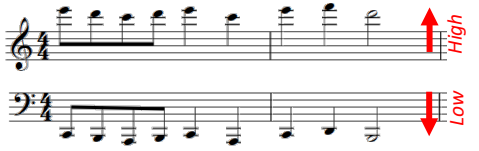
Ostinato A short repeated idea.



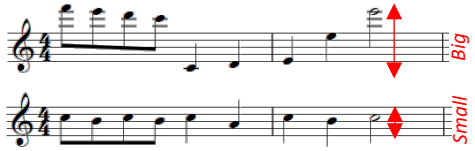
Chromatic The melody uses notes that aren't in the scale / key of the piece.



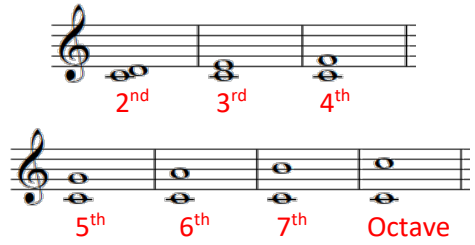
High or low. **Range**



Big or Small.

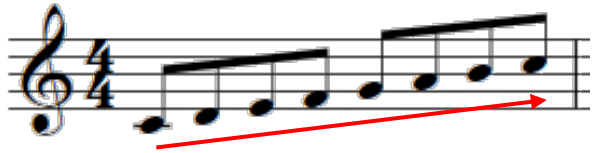


Interval The distance between two notes

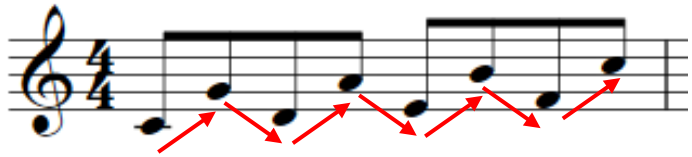


**Count the start note & end note*

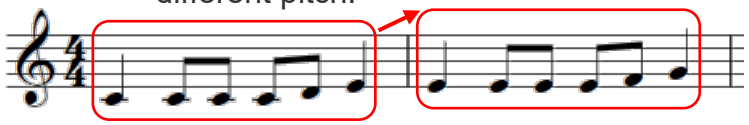
Conjunct (Moving In Step) **Type of movement**



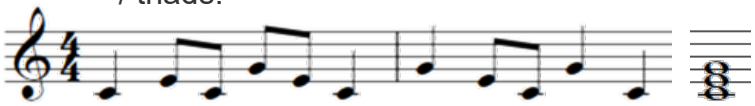
Disjunct (Moving In Leaps)



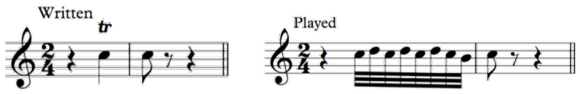
Sequence Doing the same shape idea but at a different pitch.



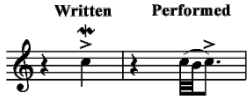
Triadic The tune is based on notes from the chords / triads.



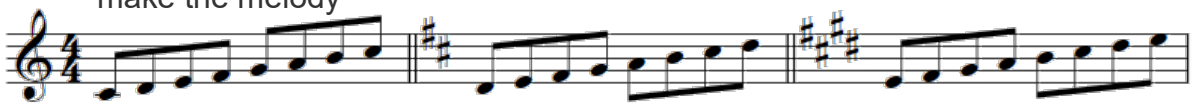
Ornaments Trills



Mordents



Scale The series of notes in a key that are used to make the melody



etc...

I 1.Tonic
II 2.Supertonic
III 3.Mediant
IV 4.Subdominant
V 5.Dominant
VI 6.Submediant
VII 7.Leading Note

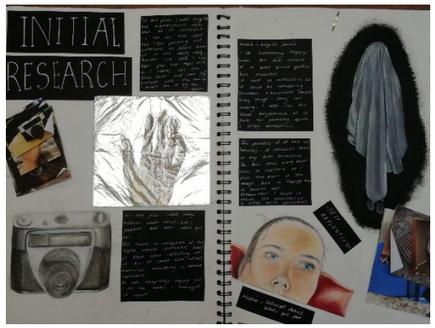
Half-Term: HT3+4

Subject: KS4 Art Exam

Threshold Concept Link(s): All concept links

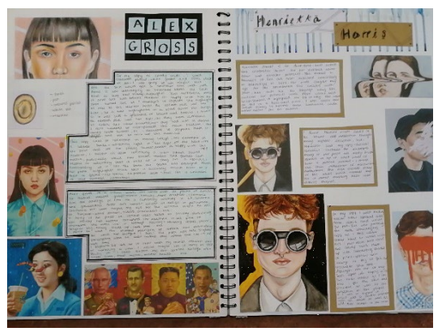
Assessment Taxonomy					
LIMITED	BASIC	EMERGING COMPETENT	COMPETENT & CONSISTENT	CONFIDENT & ASSURED	EXCEPTIONAL
Unstructured Clumsy Disjointed Minimal Elementary	Deliberate Methodical Superficial Unrefined Simplistic Tentative	Reflective Predictable Growing Control Broadening Endeavour Safe	Informed Purposeful Secure Engaged Skilful Thoughtful Cohesive	Advanced Convincing Comprehensive Focused Perceptive Refined Resolved Risk-taking	Accomplished Inspired Intuitive Insightful Powerful Extraordinary Unexpected Outstanding
1-12 marks	16-24marks	28-36 marks	40-48 marks	52-60 marks	64-72 marks

TECHNICAL VOCABULARY	
Response	A reaction (to the work of an artist)
Develop	To evolve, grow and improve
Experiment	To test (with different art media)
Annotate	Explanatory notes
Review	Evaluate
Refine	Improve
Primary source	Observed first hand
Composition	How objects, shapes and patterns are arranged
Analyse	To examine in detail
Resource	An aid to help develop ideas



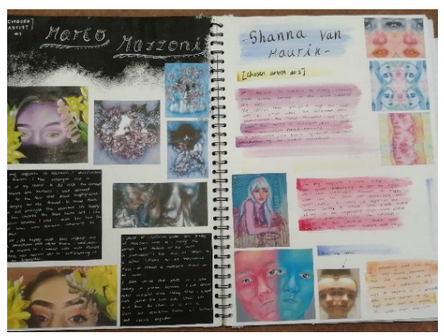
Week 1+2

Initial research



Week 3,4+5

Artist copies

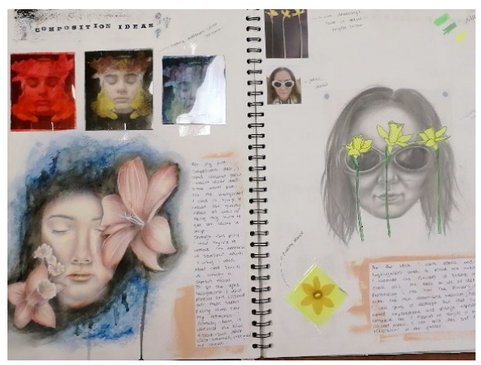


Week 6+7

Artist responses

Week 8+9

Use your own photos for lots of responses and composition ideas and then select the best to draw



It will be very important to keep up to date with the schedule and meet deadlines as once the timed exam piece starts you can no longer work in your exam book.

Your exam is worth 40% of your final mark and should be the best work you have done so far.

Week	Exam Sketchpad layout
1	Title page+ Spider diagram Initial Research
2	Initial research
3,4+5	Artist copies
6+7	Artist responses
8	Primary sources + compositions
9	Compositions
10,11 + 12	Experiment
12+13	Final choices

Technical principles – Knowledge organiser

What	Definition	What	Definition
A static load	Does not move	**NET**	2D object which is cut scored and folded into a 3d. Cut lines shown as solid lines
A dynamic load	Moving	**Carbon footprint**	is the amount of carbon produced from its raw material being made to its product.
Tension	pulling force is applied to either end of a material Stretching	**Ecological and social footprint**	
Tensile	resist being pulled apart	***Folding and bending***	techniques can be used to improve the mechanical and physical properties of a material
Compression	occurs when a pushing force is applied to either end of a material	**Laminating**	bonding two or material to improve its strength, stability and flexibility.
Compression strength	the ability of a material to resist being compressed or squashed	**Fabric interfacing**	Used in textiles and garments to add support, strength and structure to areas that are needed. These are sewn in Collars in shirts - Peak in the baseball caps.
Torsion	when something is twisted two ends of the material rotate the opposite way.	**Folding and bending**	Materials manipulated through reshaping can gain many physical advantages
Torsional strength	is the ability of a material to resist being twisted	**Curves, arches and tubes**	can also be added to give more strength whilst using minimum material
Bending	occurs when both sides are under compression and tension.	**Ecological and social footprint**	This measures the impact of a persons life on the environment by quantifying the amount of Co2 that are being used.
Shear	occurs when a force applies on an object in a perpendicular to its length	***Safe working conditions***	In Britain we have employment protect laws that protect us workers. The law holds accountability to the company/ Boss!!! Heath and Safety Executive HSE
Strengthening and enhancing materials	To strengthen or enhance its strength you need to consider the forces that it will have upon it.	***Ecological issues in the design and manufacturing***	When products are made, natural resources are used, so designers and manufacturers have to make decisions which have a direct impact on the consumption of the earths resources
Webbing	Webbing is a strong fabric woven into strips from yarns, which are often made of synthetic fibres such as nylon or polyester, or even Kevlar Very light but strong and flexible	**Deforestation**	cutting down of trees
Stiffening Materials	Materials can be *laminated* to improve strength.	**Mining**	used to gather finite materials Surface and underground mining!
Interfacing	to stiffen a fabric	**Drilling**	getting oil and gas
Farming	A huge proportion of the earths crust is used as farmland. 11% - agriculture. 36% - growing crops		

Year 11 HT1 Subject – Hospitality and Catering Threshold Concept Link(s) **Nutritional Function and Deficiencies**

Functions of macronutrients	
FAT • Fat is required to insulate the body • Fat is required to protect the vital organs • Fat is required as an energy source • Fat is required to insulation • Fat allows the body to feel fuller (satiety)	**CARBOHYDRATES** • Carbohydrates are a primary energy source • Carbohydrates are divided into simple and complex • Complex - Starch and fibre NSP • Simple – Sugar, fructose, glucose • Starch comes from plants and is used for energy • Starch as bulk to the diet • Starch keeps you fuller for longer • Excess starch is turned to fat and stored • Fibre aids digestion, prevents constipation
PROTEIN • Proteins are required to provide amino acids • Proteins are required for growth • Proteins are required for repair • Proteins are a secondary energy source • Proteins are made up of amino acids	

Unit 2

AC1.1 / AC1.3 LO1

Nutritional Deficiencies	
FAT- Visible signs • Weight loss • Feeling cold **Non Visible signs** • Bruising of the bones, as fat protects • Lack of fat soluble Vits ADEK	**CARBOHYDRATES- Visible signs** • Lack of energy • Weight loss **Non visible signs** • Lack of NSP can lead to constipation • Type 2 diabetes
PROTEIN- Visible signs • Children don't grow properly • Hair becomes thin and falls out • Poor skin and weak nails **Non Visible signs** • Infections can develop and cause • illness • Food is not digested properly	**Vitamin A**- Dry infected skin and mucus membranes Night blindness **Vitamin D**- Weakened bones, rickets, osteomalacia **Vitamin E**-Deficiency is rare **Vitamin K**-Deficiency rare, only in new borns **Vitamin B**- Beri beri , Pelegra.affects the nerves and **Vitamin C**-Loose teeth, wounds not healing well, Scurvy and bleeding under the skin **Calcium**- Bones in arms and legs bend- can lead to osteoporosis **Iron**- Pale skin, weak split nails, Tiredness, weakness Can lead to Iron deficient anaemia

FAT SOLUBLE	**Micronutrients**	**WATER SOLUBLE**
<u>Vitamin A</u> • Healthy eyesight, helps night vision • An antioxidant • Production of white blood cells **Sources-** Oily fish, red and orange veg, dairy **<u>Vitamin D</u>** • Controls calcium uptake • Strong bones and teeth **Sources-** Sunlight, Oily fish, meat, eggs butter **<u>Vitamin E</u>** • Antioxidant, helps prevent heart disease and cancer **Sources-**Peanuts, avocado, Soya products **<u>Vitamin K</u>** • Blood clotting **Sources-**Fat soluble Vitamin K-Green leafy veg		**<u>Vitamin B</u>** • Releases energy from carbohydrates from food **Sources-** meat, cheese, eggs, breakfast cereals **<u>Vitamin C</u>** • Helps the body absorb iron • Helps maintain connective tissue • Antioxidant **Sources-** Citrus fruit, blackcurrants, kiwi fruit **<u>Minerals</u>** **<u>Iron</u>** • Production of red blood cells **Sources-** Red meat, offal, green leafy veg **<u>Calcium</u>** • Works with Vit D for strong bones and teeth **Sources-** Dairy products, canned fish

Importance of Water and hydration	
Regulates body temperature • sweating • Overheating of the body • Gets rid of waste products	**Gets rid of waste products** • Aids digestion • Reduces constipation
Keeps internal organs moist • So they don't rub together create friction/pain • Saliva to aid swallowing	**Dehydration causes** • Weakness and nausea • Changes in blood pressure/ headaches
Transportation • Of nutrients • CO2 and O2 around the body via the blood	

Half-Term 3 - Brickwork

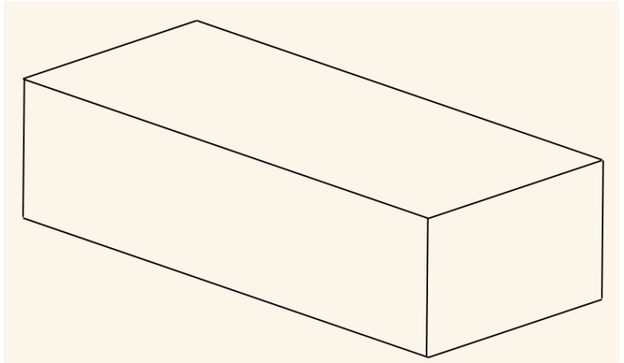
Subject - Construction

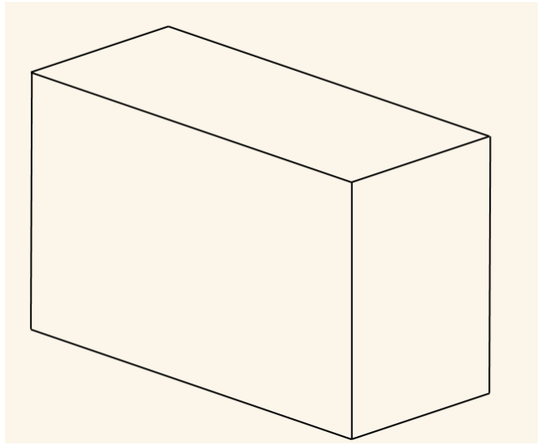
Brick dimensions

What is the length of a brick?
What is the width of a brick?
What is the depth of a brick?
How thick is a mortar joint?

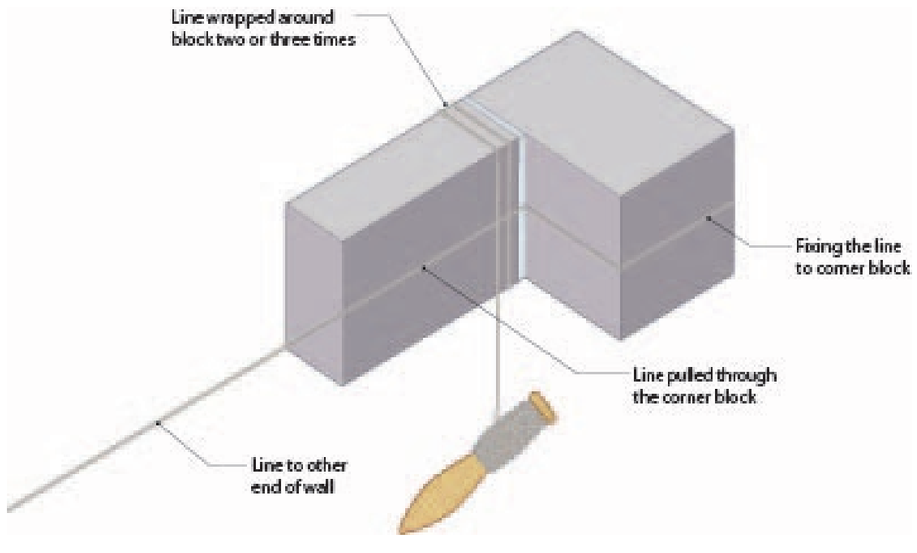
Block dimensions

What is the length of a block?
What is the width of a block?
What is the depth of a block?

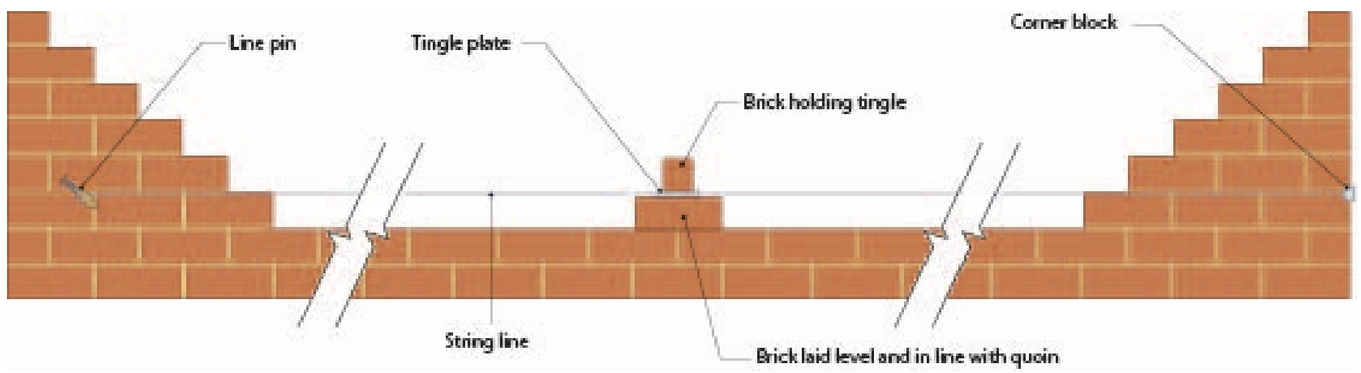




There are different methods of holding in place a string line so you can build to it.



- How does the tingle plate work?
- Why is it required?
- When would you use it?



CORE RE – Relationships and families HT5

What are Christian attitudes towards human sexuality?

Many Christians see heterosexual relationships as part of God's plan for humans. Genesis says that a man and woman should be united and 'increase in number.' Therefore, some are against sex outside marriage, homosexuality and artificial contraception.

Some Christians are against homosexuality based on Leviticus 18 but some Christians argue about the meaning behind these texts. The Bible does not mention relationships between two women. The Catholic Church teaches that being a homosexual is not a sin, but homosexual sex is. The Church of England welcomes faithful committed homosexual couples but does not marry them in church. Other Christians believe that the Bible passages need to be interpreted in context and would marry homosexual couples, just like heterosexual couples.

GCSE Theme: Religion, Relationships and Family

What are Buddhist Attitudes towards Sex?

Buddhist attitudes vary, depending on the country and culture.

Buddhism teaches that sex is not wrong, and that people have desires and they shouldn't be denied. However, sexual attraction leads to craving which can lead to craving which leads to suffering. Buddhists believe that their sexual behaviour should be guided by kindness, generosity, honesty and not causing harm to oneself or others.

Buddhist monks and nuns take a vow of celibacy. They avoid sexual activity as one aspect of a simple life.

The Buddha did not teach on homosexuality or same-sex relationships. Many Buddhists would say that the five moral precepts apply to all relationships. What matters is consent and respect.

What are Christian attitudes to Contraception and Family Planning?

All Christians believe that having children is a gift from God. Christianity also teaches that parents should be responsible and there may be times when bringing children into the world, because of economics or psychological reasons, is not sensible.

Christians disagree about the methods of limiting family size. The Catholic and Orthodox teach that artificial methods (condom) goes against God's purpose of sex which is to express love AND allow the possibility of creating new life. To use contraception is to be selfish and prevent God's plan. Any form of contraception should be natural (rhythm method). Some catholics disagree with this when considering the modern world.

Many Christians believe that sex is for creating new life OR express love and should make responsible choices about family life. Also contraception may be used to protect the mother's health and to allow a time for the relationship to develop.

Some Christians will only use certain forms of contraception because some allow for the egg and sperm to meet (coil) and they see this as causing an early form of abortion and the ending of life that started at conception.

SUBJECT TERMINOLOGY

Adultery	a married person having sex with someone other than their marriage partner
Civil partnership	a legal ceremony giving a homosexual couple the same legal rights as a husband and wife.
Cohabitation	living together without being married
Contraception	intentionally preventing pregnancy from happening.
Divorce	Legal ending of a marriage
Extended family	A family which extends beyond the nuclear family to include grandparents and other relatives.
Faithfulness	staying with your marriage partner and having sex only with them.
Family planning	Using contraception to control how many children couples have and when they have them.
Gender equality	The idea that people should be given the same rights and opportunities regardless of whether they are male or female.
Gender prejudice	Unfairly judging someone before the facts are known ; holding biased opinions about an individual or group based on their gender.
Gender discrimination	Acting against someone on the basis of their gender; discrimination is usually seen as wrong and may be against the law
Nuclear family	mother, father and the children living as a unit
Procreate	Produce children
Human sexuality	How people express themselves as sexual beings
Heterosexual	Sexually attracted to members of the opposite sex
Homosexual	Sexually attracted to members of the same sex
Marriage	A legal union between two people as partners in a relationship
Polygamy	The practice or custom of having more than one wife or husband at the same time.
Re-constituted family	where two sets of children become one family when their divorced parents marry each other.
Re-marriage	marrying again after being divorced from a previous marriage.
Sex before marriage	Sex between two single unmarried people
Same sex marriage	Sex between partners of the same sex

What are Buddhist Attitudes to Contraception and Family Planning?

Buddhist traditions may differ about contraception because of when it is believed consciousness arises. Some may say at conception, some may say that it is continuous from life to life. Most Buddhists believe that it is acceptable to use a form of contraception that prevents fertilisation, but others would say something like the morning after pill is less acceptable as it may be seen as a form of killing and going against the first moral precept. If having the child might harm the life of the mother, the morning after pill may be seen as the lesser of two harms.

Having children is not a sacred duty in Buddhism and the Buddha did not recommend family life as a path to enlightenment. Buddhists can choose what to do but should be able to bring children up is a happy and safe environment.

What are Buddhist teachings on Marriage?

Marriage is a social contract and not a religious duty or sacred act. Marriage is a secular ceremony depending on the country but a Buddhist monk may bless the service.

Having children is not seen as the purpose of marriage and there is no obligation or pressure to have them. Because everything is interconnected a benefit of married couples is that it develops relationships which produce stronger communities.

Most ideas around sex before marriage are cultural but it is not forbidden but must be according to the five moral principles. The same is true of cohabitation. Most Buddhists would see adultery as wrong as it involved dishonesty and does not show kindness towards your partner. Same sex marriages are more likely to be accepted because of culture. Buddhism does not teach against them but teaches that in any relationship respect should be shown.

What are Buddhist teachings on Divorce?

Buddhism does not say that a couple cannot be divorced but does say that they should lead a life of implied duty and responsibility to one another so would not encourage it. Often ideas about divorce are also influenced by cultural values. By following the five moral precepts and trying to lead a life developing loving-kindness Buddhists is more skilful and would be encouraged to try and make their marriage work.

Buddhists are also likely to teach that hanging on to a broken relationship produces suffering and should be avoided. Buddhism accept that divorce may well be a painful process, but every attempt should be made to make it as respectful as possible. Causing hurt will never make a person happy.

Buddhists also do not teach against remarriage as it may be a way to commit to a new relationship and find happiness.

What are Buddhist teachings on the nature and purpose of family life?

Buddhism is not a family-centred religion, there is no expectation to have children. The nature of the family, extended or nuclear, usually reflects the customs of the country they live in. The Buddha did not forbid polygamy but did say it may cause suffering for those involved. Same-sex parents are accepted as long as the relationship is respectful, Buddhist values are more important than gender.

Buddhism does not teach about family life apart from the general rules to be loving, caring and to remain faithful to each other. Parents are responsible for raising children and teaching them the faith. Buddhist will often have a shrine in the home and children are shown how to show respect to the Buddha.

In later life, children are expected to support their parents when old age or illness becomes an issue.

What are Christian Teachings about Marriage?

Society now recognises same-sex marriages as having the same legal status as non-same sex marriages. Many Christians are against this as they see marriage as being more than a committed relationship and somewhere that new life can be created. The law protects churches from having to marry same sex couples.

For many Christians marriage is seen as part of God's plan to unite couples. Some Christians see it as a sacrament which reflects the commitment made by God to humans. Marriage is a spiritual bond that reflects the love of God. For many Christians the purpose of marriage is to provide a stable, secure environment for family life.

Christians who are opposed to sex before marriage also oppose cohabitation. Many Anglican and protestant Christians believe that marriage is best, but people may live together in a faithful, loving and committed way without being married.

What are Christian teachings on Divorce?

Some Roman Catholic Christians believe there can be no divorce because Jesus banned divorce. Also when you marry, you make a covenant with God which cannot be broken without God's consent. Therefore a couple can never be divorced according to God's law. Catholics do have Marriage Tribunals which can decide that a marriage never existed (annulment), but there can be no divorce and Catholics who have state divorces are not allowed to remarry.

Most Protestant Christians believe that if a marriage goes wrong and there is no chance of bringing the couple back together, then there can be a divorce. They believe this because God is always prepared to forgive sins if people are determined to live a new life, and in St Matthew's Gospel Jesus allows divorce for adultery.

What are Christian teachings on Family Life?

All Christians believe that children should be brought up in a family with a mother and father (unless one of them has died). Christian marriage services refer to founding a family and bringing children up in a Christian environment as a major purpose of marriage.

Christians see the family as the basis of society. Children are a gift from God and parents are expected to look after them properly (feeding, clothing, educating, etc) and help them to be Christians by having them baptised and taking them to church on Sunday. Christian children are expected to respect their parents (fifth commandment) and care for them when they are old.

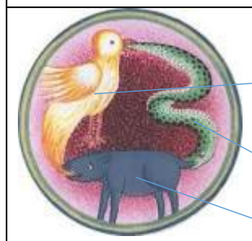
Subject **RS** Buddhism: **beliefs** and teachings.

Before enlightenment	
How long ago was Buddhism founded?	Buddhism was founded around 2500 years ago.
Who is the founder of Buddhism?	The founder of Buddhism was Siddhartha Gautama, he was born around 500BCE.
Who were Siddhartha's parents and what did this mean for his lifestyle?	Siddhartha's parents were King Suddhodana and Queen Maya and he had a life of 'material' luxury.
Queen Maya had a dream before Siddhartha was born what was it? What did it mean?	Queen Maya dreamt about a little white elephant who told her that her child would be holy.
After his mother died the King tried to protect his son from all hardships – what were the four sights that changed Siddhartha's life?	The four sights were old age; illness; death and a holy man. 
When he was an ascetic how was Siddhartha trying to understand the problem of suffering?	Siddhartha practiced living in extreme temperatures and places of danger; he slept on thorns and survived on very small amounts of food.
How did the demon Mara try to distract Siddhartha from gaining enlightenment?	Mara tried to distract Siddhartha by sending his daughters; his armies; offering control of his kingdom and questioning Siddhartha.
How long did Siddhartha's enlightenment take?	Siddhartha's enlightenment took place during 3 parts (watches) of the night.

After Enlightenment: Teachings	
What is the Dhamma?	Dhamma refers to the Buddha's teachings but is also about truth; training and universal 'law'.
What are the three refuges (or jewels) in Buddhism?	The three refuges (jewels) in Buddhism are the Buddha; the Dhamma and the Sangha (the Buddhist community).
What is the idea of dependent arising?	Dependent arising is the idea that everything arises in dependence upon conditions. It is shown as the Wheel of Life.
What does the Tibetan Wheel of Life show?	The Wheel of Life shows dependent arising as applied to birth, death and rebirth (samsara).
What are the three marks of existence?	The three marks of existence are suffering (Dukkha); impermanence (anicca) and having no permanent, fixed self or soul (anatta).
What are the 3 recognised types of suffering?	The three types of suffering are ordinary suffering (dukkha-dukkhata); suffering because of change (viparinama-dukkha) and suffering because of attachment (samkhara-dukkha).
How does anicca (impermanence) affect the world?	Anicca affects the world in the three following groups – living things; non-living things and people's minds.
What does the story of Nagasena and the chariot illustrate?	The story of Nagasena and the chariot illustrates that there is no fixed part to a person.
What are the Four Noble Truths?	The Four Noble Truths are- 1/ dukkha (suffering); 2/ samudaya (causes of suffering); 3/ nirodha (suffering can end) and 4/ magga (there is a way to end suffering).

TECHNICAL VOCABULARY	
Buddha	This is a title meaning 'awakened one' or 'enlightened one.'
Jakata	Popular stories about the life of Buddha.
Ascetics	People who live a simple and strict lifestyle with few pleasures or possessions. They are searching for spiritual wisdom.
Meditation	The practice of calming and focussing the mind.
Enlightenment	Spiritual wisdom that comes from understanding the true reality of nature.
Mara	A demon that represents spiritual obstacles and temptation.
Dhamma	The truth Buddha realised when he became enlightened.
The three marks of existence	Dukkha (suffering); Anicca (impermanence) and Anatta (nothing is permananet).
The four noble truths	These are dukkha (suffering); samudaya (cause of suffering); nirodha (suffering can end) and magga (there is a means to end suffering).
Arhat	A perfected person

Suffering, causes and routes to happiness



The 3 poisons

Greed/desire shown by a cockerel.

Hatred/anger shown by a snake.

Ignorance shown by a pig.

The **threefold way** makes up the sections of the eightfold path. They are ethics; meditation and wisdom.

The Eightfold Path has 8 aspects that Buddhists practice and live by in order to achieve enlightenment. It is split into the threefold way and can be understood as a range of practices that should all be developed. They are: -

Ethics – right speech; right action; right livelihood.

Meditation – right effort; right mindfulness; right concentration.

Wisdom – right understanding; right intention.

How does a person become an **Arhat**?
An arhat has overcome the main sources of suffering and has become enlightened so the cycle of rebirth ends and reach nibbana, this means that have followed and fulfilled the Eightfold Path.

Year 11

Child Development: Supporting Children to Play, Learn and Develop.

Physical needs that may impact on play, learning and development.	
What is a sensory impairment?	A sensory impairment would include a difficulty in seeing (visual impairment) or hearing (hearing impairment).
What are some possible impacts of visual impairments?	Motor skills can be affected; may not move towards things as they can't see them; won't be able to fully explore so won't develop concepts easily; may struggle to talk as can't copy lip movements of others; not able to make eye contact causes difficulties in social situations; can't see facial expressions clearly; maybe less independent.
What are some possible impacts of hearing impairment?	Discharge from the ears; posture issues; difficulties with reading and maths concepts; difficulty in speech as they cannot hear the sounds required to speak; restricted language can affect social development; can have low self-esteem.

Cognitive and intellectual needs that may impact on play, learning and development.	
What are the possible impacts of poor concentration levels?	Can lead to disruptive behaviour; can talk a lot and interrupt others; can be restless or fidgety; won't persevere with learning skills; lose interest quickly; difficulties in paying attention, following instructions or completing activities.
Why do some children have difficulties remembering instructions?	Developmental disabilities (ADHD; autism; Down's syndrome); concussion or traumatic brain injury; medical conditions like epilepsy.
What are difficulties in problem-solving?	Some children find this difficult as they haven't reached their age milestones for cognitive development. Developmental conditions like Down's syndrome which can mean a lower cognitive ability. Other reasons could be trauma; birth injuries; mothers using drugs/alcohol during pregnancy.
What impact can delayed literacy skills have?	Children who are left-handed can struggle with writing- longer to form letters; learning difficulties; behavioural problems.

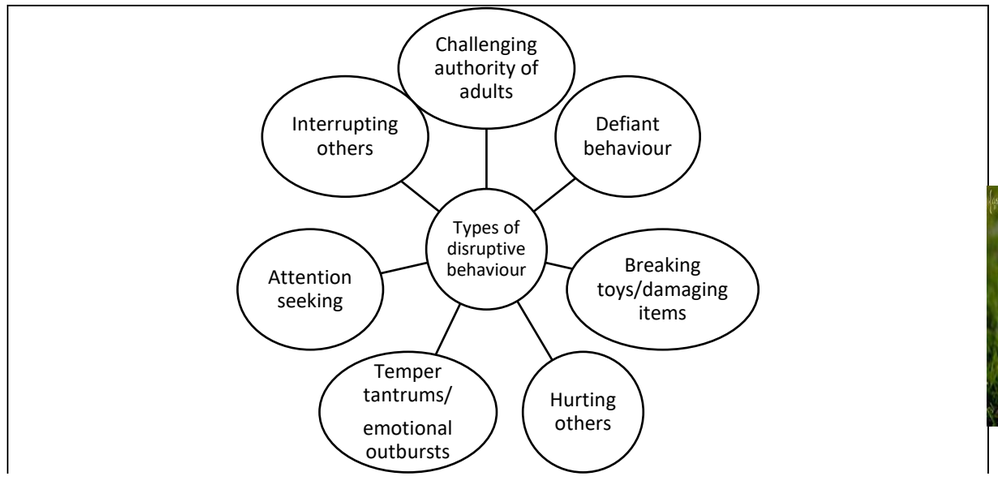
Communication and Language needs that may impact on play, learning and development	
What are the benefits of children learning English as an additional language?	Cognitive skills are developed if using more than 1 language; problem-solving and creativity skills; memory improves; can socilaise with different people; closer bonds if have a shared language; links between language and culture/religion = self-identity/self-esteem.
What can be the negative impacts of learning English as an additional language?	Children in a setting where they don't understand the language may be frightened, they may feel different to others = low self-esteem. May take longer to settle in as they need time to learn the language; may lose their 'home' language; may have gaps in language or develop a speech delay.
How do we recognise speech delay?	A child may have a speech delay if at 3 years old they are hard to understand; don't ask for things by name; learn words but don't remember them; know fewer words than you'd expect. Delayed language can also come from medical issues; lack of stimulation or no opportunities to interact and learn language.

TECHNICAL VOCABULARY	
Delayed gross motor skills	Large movements of the body are not progressing as quickly as other children of the same age.
Delayed fine motor skills	Small movements of a child's hands and fingers are not progressing as quickly as other children of the same age.
Poor concentration levels	Children find it difficult to focus on what they are doing and/or focus for a long time.
Down's syndrome	A biological disorder which occurs during embryo development when cells are dividing, and an error occurs causing development delays.
Embryo	Stage of pre-birth when the egg has been fertilised.
Delayed literacy skills	A child's reading and writing skills are not progressing to expected milestones of their age and stage of development.
English as an additional language	English is not a child's first language, the first language is the one a child is exposed to from birth.
Positive role model	Someone who sets a good example.
Social norms and values	Attitudes and behaviours that are considered 'normal' in society.
Limited interaction	When a child has limited communication and contact with adults.

Social and emotional needs that may impact on play, learning and development	
What impact can limited interaction with adults have?	Children may have a lack of interest in things; may not learn how to join in and play with others; behave unacceptably to gain attention and do not develop language skills.
What impact can having poor awareness of social norms and values have?	May display inappropriate and unwanted behviour in social situations and public places; difficulties concentrating or making friends; can be withdrawn and have low self-esteem.
Why do some children have difficulty forming bonds with adults?	Premature birth; Postnatal depression; a child's health or a parent/parents health and abuse. If a child has difficulty forming bonds with adults this impacts on play, learning and development.
What are the impacts on a child if they don't play?	Child will not know what they like or are interested in; find it hard to control emotions; unable to make friends or cooperate; won't learn how to use resources and equipment; won't progress in development; won't be able to adapt; can lead to anxiety and depression.
Why do some children have difficulties forming friendships?	May not have the skills – can't share or take turns; may not have formed bonds with adults making it difficult to trust and understand the needs of others; delayed language skills; English as an additional language; not tolerant of others; domineering; argumentative.

Year 11

Child Development: Supporting Children to Play, Learn and Develop.



TECHNICAL VOCABULARY	
Friendships	Relationships between friends.
Disruptive behaviour	Unwanted behaviour that disturbs and interrupts activities.
Transitions	Changes in children's lives.
Care or education providers	Settings that provide formal care/education for children – school for example.
Sibling	Brother or sister.
Significant family member	A close family member – parent, sibling or grandparent.
Family structure	The way in which a family is organised.
Expected milestones	Development that is expected at a particular age.
Initiate play	To start play.
Sustain involvement	Being involved for an extended period without interruption.
Perceived	Interpreting something in a particular way.
Isolate	Cause a person to be alone/apart from others.
Emotional resilience	A person's ability to adapt to stressful situations.

Social and Emotional needs that may impact on play, learning and development: transitions	
What can transitions bring to a child?	A new environment or a new relationship which can have different effects on different children.
How will children feel during transitions?	A range of feelings from excitement to stressed, anxious and nervous.
Why do children prefer things to stay the same?	Things being consistent helps children feel safe and secure- changes are unsettling.
How do children cope starting nursery/school?	Depending on age children may be nervous or excited; could suffer from separation anxiety; may cry; be clingy; ask lots of questions.
How do children cope with a new sibling?	This is a huge adjustment – many children are jealous or start to behave like a baby to gain attention (regression) may be aggressive and may try to hurt the baby or take their things.
How do family structures change?	Births; divorce; separation; death. Children may also move house or spend time at two different houses' Some children go into care and many children find adjusting to changes difficult.

Possible impact of not meeting expected milestones: -

- Unable to develop own ideas and make connections.
- May not develop language and social skills.
- Unable to understand concepts such as shape and colour.
- May not learn to control movements.
- Will not develop imagination and creativity.
- Poor concentration, perseverance and memory skills.

Possible impact of individual needs on physical learning and development: -

- Unable to access learning activities at varying levels.
- May not develop stamina.
- May not develop friendships.
- Unable to grasp small objects or manipulate materials.
- May tire easily and not be able to sustain involvement in activities.
- May be unable to navigate play areas and activities.

Possible impact of individual needs on cognitive development: -

- May not understand rules.
- Poor awareness of social norms.
- May not be able to sustain attention.
- May have difficulties taking turns; listening to others; sharing or being respectful.

Possible impact of individual needs on communication and language development: -

- Difficulties with speaking and listening.
- May not be able to make sense of information.
- Play with others may be limited.
- May lack confidence.
- May not be able to build friendships.

Possible impact of individual needs on social and emotional development: -

- May find cooperative play difficult.
- May have poor emotional resilience.
- May isolate themselves or be isolated by others.
- May refuse or find it difficult to join in team or group activities.
- May have limited expression of thoughts and feelings.
- May find building positive relationships difficult.
- May find it difficult to cope with change.
- May have low self-esteem.

Half-Term **5** Subject **Sociology** **Social Stratification**

Key studies

Davis and Moore (functionalist)
Society needs to place people into roles / social positions that need to be filled for society to operate smoothly. Some roles come with higher status (doctors, lawyers). People who fill the top roles are the most able, have the most drive/ambition and are the most competitive.
Marx (Marxist)
Class is an important division, the bourgeoisie have power/control over the proletariat who are exploited for profit. The working class and petty bourgeoisie didn't benefit from the growth of capitalism. Small business couldn't compete and had 'downward social mobility'. The working class are not aware of their exploitation.
Devine
Conducted interviews at a car factory in the 1980s. She found evidence of the working class still being separate and still had working class values. This goes against the idea of embourgeoisement.
Townsend
Conducted surveys on 2000 households about poverty, used relative poverty index and found the government underestimated poverty (6% vs. 22%). Concluded that poverty should be measured using a number of factors.
Murray (New Right)
There is a growing underclass in British society caused by overgenerous welfare benefits. Can be seen in three ways – welfare dependency, juvenile delinquency, loss of traditional values.
Weber
Believed class is important but is not just tied to income/wealth, status and power can affect someone's position in society too. He thought capitalism actually expanded the middle class and a revolution by the working class is possible. Distinguished between three types of power in society – charismatic, traditional and rational legal.
Walby (Feminist)
Men have more power in society due to patriarchy. This is shown in 6 ways – paidworl/employment, labour in the home, patriarchal culture, sexuality, male violence and the state. Public patriarchy is now more likely to exist than private patriarchy.

Poverty

Definitions of poverty

Absolute	**Relative**
Not being able to afford things you need to survive e.g. food/shelter Politicians prefer it (looks like less people are in poverty) and is a fixed definition, does not change between countries	Not being able to afford the general standard of living in society e.g. internet Sociologists prefer it (more accurate) and takes into account differences in standards of living between countries.

Reasons / explanations of poverty

Reasons	Poor health, divorce, old age, disability, unemployment, lack of education
The poor are responsible	**Culture of poverty** – Socialised within a subculture to accept poverty, see it as normal, unlikely to try and get themselves out of it. Leads to a cycle of deprivation – poverty being passed from one generation to the next.
	Cultural deprivation – May not have the correct norms and values to be motivated to get out of poverty, may seek immediate gratification (e.g. spending money rather than saving)
	Welfare dependency – Overgenerous welfare benefits could mean there's no incentive to work for less than you would receive. Can lead to the poverty trap.
Society is responsible	**Class inequality** – Marxists argue capitalism is responsible for poverty as the working class are not given opportunities to get out of poverty (low wages and zero hour contracts, low social mobility)
	Globalisation – Has led to a higher cost of living and low minimum wages, with less manufacturing jobs as these have moved abroad.

Are poverty statistics accurate?

Yes	No
Functionalists – official statistics are accurate	Marxists – statistics underestimate poverty so the working class believe society is fair and do not revolt Feminists – statistics underestimate female poverty due to lower wages, less opportunities etc. Townsend – governments underestimate poverty and should use relative measures

Is poverty still an issue in society?

Yes	No
Poverty rates are increasing for all age groups (1/5 people) Marxists – minimum wages and zero hour contracts still cause poverty Feminists – poverty is still an issue for women	Functionalists – government policies have aimed to reduce poverty Less people are in absolute poverty now

Power and authority

Formal power – power from the title/role someone has **Informal** – power from respect/appreciation earnt	
Forms of power / authority	Traditional – inherited (e.g. monarchy), based on established customs/traditions
	Charismatic – shown by a leader with persuasive/inspirational qualities
	Rational legal – shown by organisations through laws, rules and regulations
Who has power?	The ruling class have power over the working class (Marxist view)
	Men have power over women (in employment, the home, society, violence, the government) (feminist view)
	Heterosexuals – LGBT may have less power in politics/police etc.
	White individuals – BAME groups under-represented in politics
	Older people – younger may be excluded from politics (vote at 18)

Power of the state

Political system in the UK – democracy, first past the post system (MPs elected based on votes in constituency) Other systems – dictatorships (one person in power), proportional representation	
Can the public influence the state?	**Yes** – pluralist view, pressure groups, petitions, protests etc.
	No – conflict approach, Marxists, power of businesses rather than the public

The underclass

Does the underclass still exist?

Yes	No
Murray – underclass is in Britain, can be seen in welfare dependency, juvenile delinquency and a loss of values Members of the underclass were blamed for the London riots There are more lone-parent families in the underclass	Murray blames the victims for being welfare dependent but could be due to divorce etc. Marxists – the underclass are scapegoated to blame for society's problems Many people who are on benefits still aspire to have paid employment/better themselves

Half-Term **3 January-February**

Subject **Sociology**

Social Stratification

Key terms

Absolute poverty - Not being able to afford the basic things you need to survive in life e.g. food, clothing,
Achieved status - Social positions are earned through personal talent, merit and effort, not fixed at birth
Ascribed status - Social positions/status are fixed at birth (due to class) and do not change over time
Bourgeoisie - The ruling class who owned the means of production and exploited the working class
Culture of dependency – The welfare system encourages people to stay on benefits rather than support themselves through work
Glass ceiling - An invisible barrier in employment that prevents some groups such as women or ethnic minorities from gaining promotions
Life chances - The opportunity/chance of achieving positive or negative outcomes (e.g. healthy/ill, rich/poor) as you progress throughout life
Power - The ability to get what you want, despite opposition
Pressure group - A group formed to influence government policy on a particular issue
Relative poverty - Not being able to afford to meet the general standard of living compared to most other people in their society
Social exclusion - The inability of some groups in society (e.g. the elderly, the working class) to play a full part in society/access the full benefits
Social inequality - The uneven distribution of resources (e.g. money or power) and opportunities
Social mobility - The ability to move up the social ladder
Social stratification - How society is structured in a hierarchy of layers based on factors such as age, gender
Status - The social standing or prestige someone is given by other members of society.
Underclass - A group in society who have different attitudes and values to others. They experience long-term unemployment, tend to be reliant on benefits
Wealth - The ownership of assets (e.g. property, land, jewelry) and savings, shares etc.
Welfare dependency - When individuals are reliant on the government for income for a prolonged period of time

Gender & Poverty:
- Women have longer life expectancy so more female pensioners living alone.
- Women more likely to head lone-parent families. Usually have a low income.
- Gender pay gap
- Women are more likely to be in part-time income than men.

Ethnicity & Poverty:
- Lower income families
- Generally disadvantaged in employment, pay and quality of job.

Child Poverty: More likely to live in poverty if:
- Household has four or more children.
- Where the head of the house is a lone parent or from an ethnic minority
- With no paid workers.

	Poverty	Power
Functionalists	Focus on the positive functions of poverty for some groups e.g. knowing you could live in poverty means people will undertake undesirable jobs, creates jobs for groups who deal with the poor. The poor also reinforce mainstream norms and provide examples of deviance such as lazy and dishonest.	Government and politics serves a purpose to regulate main stream norms and values.
Marxists	Poverty is the result from class-based inequalities. It is inevitable that some people will be poor in a capitalist society. Poverty serves the interests of the bourgeoise who can hire and fire people e.g. if they demanded higher wages, the bourgeoise could threaten to higher from the unemployed.	Weber- power is based on coercion or authority. The main sources of authority are traditional, rational legal and charismatic authority. Marxists argue the bourgeoise use their power to exploit the proletariat. They have economic and political power.
Feminists	Women face the greatest risk of poverty than men, lone-mothers and the older women living alone in particular. The gender pay gap and the inequality of the division of caring responsibilities contribute to this.	Patriarchy- the system of our social structures and practices are male dominated and they use this power to oppress and exploit women.
New Right	Focus on individuals behaviour rather than structural causes of poverty. Stress the importance of traditional values and self-reliance. Welfare dependency and the underclass are key ideas in this approach.	The government does not meet it's peoples needs, and they believe their should be minimal government intervention from the welfare state.

Sex & Gender
Sex: Male or female (biology)
Gender: masculine or feminine.
Gender & power:
Feminists see gender inequality as the most important source of division in society. Society is mainly controlled by men who have considerable power within politics and the workplace.
The crisis of masculinity:
Men are currently experiencing this because of the underachievement of boys in school, the decline of paid work in manufacturing, women's increased participation in paid employment.
Inequalities:
- Gender dominated occupations e.g. fire-fighting, nursery worker.
- Glass ceiling for women- invisible barriers for promotion.
- Gender pay gap.
- Women's triple shift.
- Childcare provision- barrier preventing women from returning to work.

Ethnicity
A social group that share an identity based on their cultural traditions, religion or language
Ethnicity & Power:
Under-represented in political power/decision makers. Also under-represented in teaching, armed forces, police officers, particularly at high levels of the organisation. Although 40% of highest positions in the NHS are from ethnic minority groups
Inequalities:
- Unemployment
- Discrimination in the labour market
- Minority groups have become an underclass (see Charles Murray)
- Racism is built into the workings of capitalism.

Half term 5 April to May Subject **Enterprise**

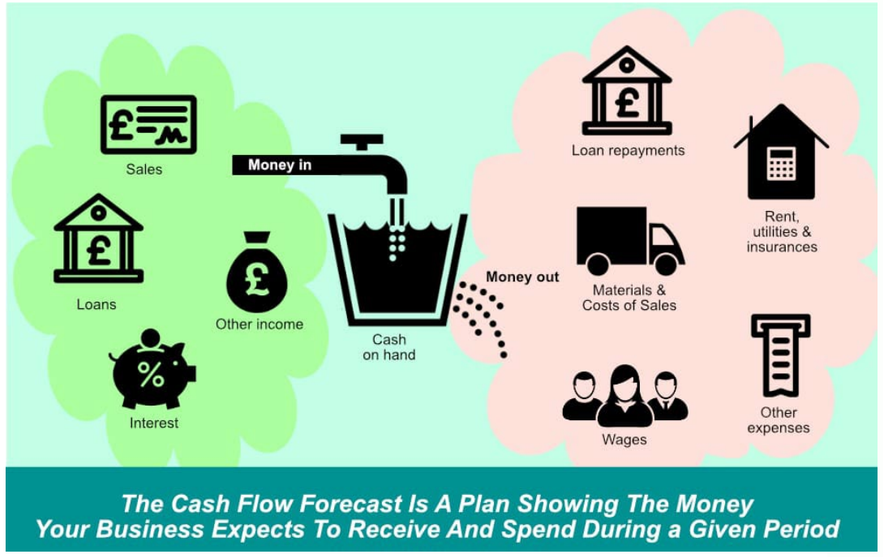
Threshold Concept Link(s) **Business Marketing and Enterprise**

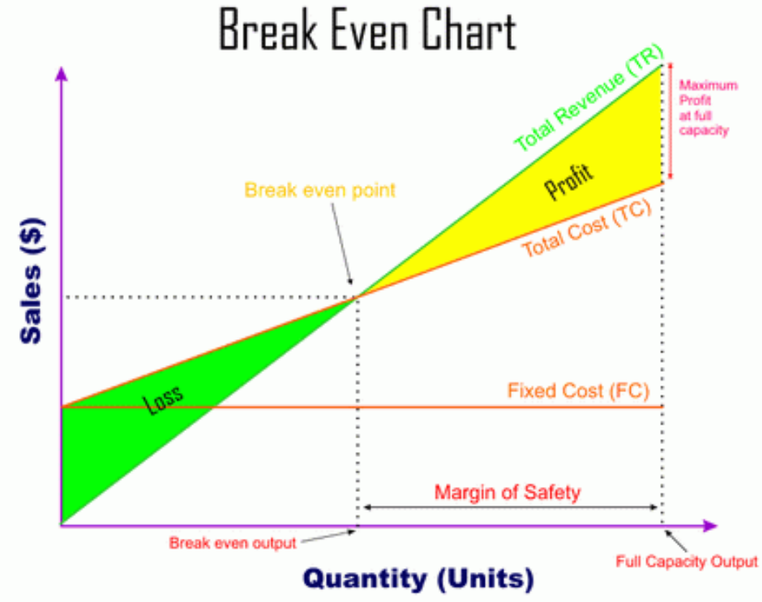
Topic Formula	
Revenue	Number of Sales x Price
Total costs	Total Fixed Costs + Total Variable Costs
Gross Profit	Sales revenue – Cost of sales
Net profit	Gross profit – Other expenses
Interest	$\frac{\text{Total repayment – borrowed amount}}{\text{Borrowed amount}}$ x100
Break-even Point in units	$\frac{\text{Fixed Costs}}{\text{(Sales price – variable cost)}}$

TECHNICAL VOCABULARY	
Medium	How an enterprise chooses to communicate with and advertise to its market
Promotional mix	The range of techniques used to communicate with current and potential customers. Advertising, public relations, direct marketing, personal selling and sales promotions.
Push Strategies	Push goods and services directly to the customer at the point of purchase. Making them aware of the brand.
Budget	Is the amount of money designated for a specific activity or period of time.
Assets	Items an enterprise owns. Includes property, machinery and cash.
Capital	Is the money, buildings and equipment that an enterprise uses in order to trade.
Start-up costs	The amount of money spent setting up a business before it starts trading.
Running costs	Are the fixed and variable costs that have to be paid to keep the business trading.
Cost of sales	Is the cost of producing the product.
Retained profit	Is profit earned and accumulated from previous trading reinvested back into the enterprise.
Net current assets	Are the difference between current assets and current liabilities. They show the value of the enterprise.
Liquidity	The ability of an enterprise to pay its debts
Trade Credit	Allows a customer to 'buy' things from a business without paying for them at the time. The money is paid back later in instalments.

Profit and loss Account
Sales revenue minus
Cost of Sales (raw materials, packaging, direct wages) Equals
Gross Profit minus
Operating Costs (salaries, rent, insurance, advertising) Equals
Net profit

Cash flow forecast





National Governing Body	Sport
The FA	The Football Association. National Governing Body of Football in England.
RFU	Rugby Football Union. The National Governing Body of Rugby in the England.
England Netball	The National Governing Body of Netball in England.
England Hockey	The National Governing Body of Hockey in England.
British Gymnastics	The National Governing Body of Gymnastics in Britain.
LTA	The Lawn Tennis Association. The National Governing Body for Tennis in England.

Exam - Topic Area 5 – The Use of Technology in Sport	
To enhance performance	Equipment, clothing, analysis, recovery & rehabilitation, accessibility.
To increase safety of participants	Helmets, gloevs, protective padding and guards, mouth guards, Formula 1 cars.
To increase fair play and accuracy of officiating	VAR, TV match official. Hawkeye, Hotspot, times/distances and at the line, post-event disciplinary action.
To enhance spectatorship	Video replays, decision-making, scores and information

Roles of NGB's	Reason how or why this aspect may cause concern
Promote Participation	NGB's can promote participation through the use of development schemes, performance pathways, equal opportunity policies, increase exposure.
Develop the sport's coaching and officiating structure	NGB's can do this by running coaching courses (FA Level 1, FA Level 2, UEFA B, UEFA A, UEFA Pro in football) or by running training courses for officials such as the RFU's Young Officials Award.
Organise Tournaments and Competitions	NGB's are in charge of organising tournaments and competitions from grassroots matches to tournaments such as the FA Cup.
Amend rules and follow disciplinary procedures.	If a NGB decides to change any rules within their sport then they can do so such as the introduction of the 'pass back' rule in football in 1992. They will also decide on what sanctions or punishments will be put in for athletes who break any rules.
Ensure safety within the sport	It is the role of the NGB to ensure all athletes follow the safety regulations for their sport, such as wearing the correct equipment and also following safeguarding laws.
Provide support and guidance.	NGB's can provide help and support such as insurance documents or local team finders on their website.
Develop Policies and Initiatives.	NGB's will develop policies and initiatives to ensure everyone has access to their sport, such as an equality and diversity policy.
Lobby For Funding	NGB's will also apply for money from sources such as government grants, lottery funding, TV money, merchandise etc.