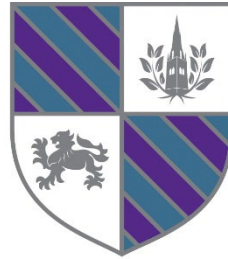


Student Name:



MAGNUS
CHURCH OF ENGLAND
ACADEMY

Knowledge Organiser: February 2025

Year 11

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

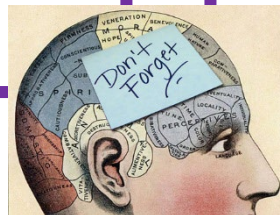
Determination – Integrity – Ambition – Humility – Compassion

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

<u>English Language</u> Comment Evidence Dramatic Exciting View Tone Effect Impression Unrewarding Seldom Pacify	<u>English Language</u> Exertion Slacker Stingier Nuisance Faith in humanity Overwhelmed Crowdfunding TAP	<u>Maths</u> Data Average Ungrouped data Grouped data Frequency Construct Interpret Line of best fit	<u>Maths</u> Data Bivariate data Correlation Cumulative Histogram Mean Median Mode Range	<u>Science - Biology</u> Resolution Transpiration Communicable disease Vaccine Photosynthesis Limiting factor Diffusion Alveoli	<u>Science-Chemistry</u> Intermolecular forces Electrostatic attraction Atomic mass Activation energy Overall energy change Acid Alkali Base Salt
<u>Science – Physics</u> Repeatability Reproducibility Zero error Random error Anomalous result Renewable Non-renewable	<u>History</u> Successor Illegitimate Heir Witan Housecarls Cavalry Danelaw Earls Sub-regulars Post Obitum	<u>Geography</u> Abiotic Biotic Flora Fauna Litter Biomass Biomes Ecosystem Nutrient cycle Food web and chains	<u>Spanish</u> Noun Adjective Verb Connective Opinion verb Infinitive Frequency expression Conjugate Adjectival agreement Wow phrase Exclamation	<u>GCSE RS</u> Karuna Metta Loving-kindness meditation The Five Moral Precepts Kamma The Six Perfections Generosity Morality Patience Energy Meditation	<u>Sociology</u> Social exclusion Social inequality Social mobility Social stratification Status Underclass Wealth Welfare dependency
<u>Drama</u> Venue Target audience Style and genre Personnel Marketing Budget	<u>Child Development</u> Delayed gross motor skills Delayed fine motor skills Poor concentration levels Down's syndrome Embryo Delayed literacy skills English as an additional language Transitions Initiate play Sustain involvement Isolate	<u>Dance</u> Command words Subject Specific Vocabulary Stimulus Motif Development Choreographic device Choreographic intent Action Space Dynamics	<u>Art</u> Response Develop Experiment Annotate Review Refine Primary source Composition Analyse Resource	<u>Sport</u> Increased tourism Increased trade Boost to business New facilities Make a profit Regeneration of new areas Political (popular with voters) Increase in national pride People enjoy it	<u>Technology</u> A static load A dynamic load Tension Tensile Compression Compression strength Torsion Torsional strength Bending Shear
<u>Construction</u> Structure Sustainability Harvesting Roofing Insulation Boarding Panels Party walls Interior Exterior	<u>iMedia</u> Visual Identity Visualisation Diagram Mind Map Moodboard Central Subject Node Topic Node Sub Node Connector/Branch/Line Conventions Concept sketches	<u>Hospitality and Catering</u> Carbon footprint Greenhouse gases Reduction Roux sauce Substitutions Blanch Organoleptic Dovetailing Mis en plas Gelation	<u>Music</u> Time signature/metre Common time Time signatures Cut common time Monophonic Antiphonal Melody & accompaniment Homophonic Polyphonic Call and response Octaves Pedal	<u>Enterprise</u> Demand Financing Contingency plan Gross profit Loan Tax Recession Legislation Competitive Advantage	<u>Core RS</u> Afterlife Eternity Funeral Heaven Hell Judgement Medium Nibbana Near death experience Paranormal activity Rebirth Reincarnation

Year 11 English Language

Box 1: Vocabulary:

Term	Definition
Unrewarding	Not satisfying; unimportant; lacking feelings of achievement or usefulness.
Seldom	Rarely; hardly.
Pacify	To quell the anger, agitation, or excitement of.
Exertion	Physical or mental effort.
Slacker	Someone who habitually avoids work or lacks work ethic.
Stingier	Mean; ungenerous; unwilling to spend money; insufficient.
Nuisance	A person or thing causing an inconvenience or annoyance.
Faith in humani-	The belief that the good in humans outweighs the bad.
Overwhelmed	Bury or drown underneath a huge mass of something; have a strong emotional effect on.
Crowdfunding	The process of sourcing financial backers from a large number of small scale investors.

Box 2: Before tackling any writing task..

Fix the TAP:

1. Identify the **text type**: article, review, letter, speech/ talk.
2. Identify who the **audience** is: parents, teachers, students, teens.
3. Identify the **purpose**: argue, persuade, inform, entertain, advise, instruct, review and evaluate.

Then, **PLAN** your response!

Box 3: Varying Sentence Starts:

Narrative/ Fiction Writing (C1):

- ☐ When it happened,
- ☐ Where it happened,
- ☐ Adverb start,
- ☐ Pair of pairs,
- ☐ With a +action,
- ☐ Verb start,
- ☐ Simile start,
- ☐ No..... No.... No....., only....
- ☐ It wasn't just....., it was.....,
- ☐ Adjective start,
- ☐ So, so, so:
- ☐ Show three: tell one,
- ☐ Triple adjective: ...

Transactional Writing (C2):

- ☐ When it happened,
- ☐ Where it happened,
- ☐ What if...?
- ☐ It wasn't just....., it was....
- ☐ Triple adjective: ...
- ☐ Adverb start,
- ☐ If..., if..., if....., then.....
- ☐ Not only....., but also....
- ☐ It wasn't just....., it was.....,
- ☐ So, so, so:
- ☐ No... No....No....., only...

Box 4: Tier Three Vocabulary:

Term	Definition
Comment	A strong feeling deriving from one's circumstances, mood, or relationships with others.
Evidence	A description of something that makes people feel strong emotions.
Dramatic	(Of an event or circumstance) sudden and striking.
Exciting	Causing great enthusiasm and eagerness.
View	Regard in a particular light or with a particular attitude.
Tone	The writer's use of words and writing style to convey his or her attitude towards a topic.
Effect	A change which is a result or consequence of an action or other cause.
Impression	An idea, feeling, or opinion about something or someone, especially one formed without conscious thought or on the basis of little evidence.

Year 11 — English Literature Paper 1 Revision

Macbeth		An Inspector Calls		English Literature Paper 1	
<i>'For brave Macbeth--well he deserves that name --'</i>	Macbeth is portrayed as a strong and loyal soldier, respected by others and the King. This is important as it inflates the tragedy of his downfall and emphasises how his ambition poisons him and turns him evil.	<i>'The Titanic – she sails next week...and unsinkable, absolutely unsinkable.'</i>	Mr Birling uses the titanic as a symbol of how capitalism is supreme, but Priestley uses dramatic irony as the audience is aware that it is hit by an iceberg and sinks. This is a metaphor for the family's future in the play, but also their selfish belief in capitalism,	How long is it?	1 hour, 45 minutes.
<i>'Stars, hide your fires; / Let not light see my black and deep desires, / The eye wink at the hand.'</i>	This clearly identifies the contrast between light and darkness (good and evil) and how Macbeth is conflicted by his deep evil ambitions and the consequences of his actions both personally and religiously (stars being heaven).	<i>"But these girls aren't cheap labour- they're people."</i>	Sheila shows that unlike her father she is able to change and begins to see those in a lower class as people, not commodities.	How many questions are there?	You have to answer two questions on Macbeth (1 hour) and one question on An Inspector Calls (45 minutes).
<i>'Come you spirits, that tend on mortal thoughts. Unsex me here, and fill me, from the crown to the toe, top-full of direst cruelty'</i>	Lady Macbeth shows her own ambition to be less feminine and take on the role of her husband, asking spirits to fill her with evil and the ability to kill the King to achieve power. It shows her willingness to welcome evil into her life, and emphasises the link between the supernatural and evil in the play.	<i>"If we were all responsible for everything that happened to everybody we'd had anything to do with, it would be very awkward, wouldn't it?"</i>	Mr Birling's capitalistic attitude is conflicted by Priestley and Inspector Goole's belief that society should work as a community and take responsibility for one another. He views this as 'awkward'.	How do I answer 1 (a) Macbeth? This is an extract question.	Read the question carefully, find the key words. Highlight/underline at least three different quotations you can explore that help answer the question. Be clear in your answer that you know when the extract is from in the text. Write at least three analytical paragraphs, using quotations in each one. WHAT HOW WHY Ensure that you unpick the language of each quote to further your analysis.
<i>"Will all great Neptune's ocean wash this blood clean from my hand"</i>	After killing Duncan, Macbeth is overcome with guilt, represented through the motif/symbol of blood in the play. Here he says that even all the seas could not wash it from his hand, he will forever feel it.	<i>"Why shouldn't they try for higher wages? We try for the highest possible prices"</i>	Eric, as part of the younger generation, is also different from his father, showing how the young can change and take responsibility for their actions.	How do I answer 1 (b) Macbeth? This is an essay question.	Read the question carefully, find the key words. Make a quick bullet point plan of moments in the play you can write about linked with the question, for example a question about Guilt will reference the moment in Act 2 when Macbeth returns from killing Duncan. Remember you cannot use the scene from the extract in this question. Write at least three analytical paragraphs, (WHAT, HOW, WHY) referencing different moments in the play. You don't need to use quotes here, you can just talk about the moment in the play. In your analytical paragraphs, you must discuss how the play links with the context (great chain of being, supernatural, James I, patriarchal society etc.)
<i>'To be thus is nothing but to be safely thus'</i>	After becoming King, Macbeth is still not content that his ambition is fulfilled. His paranoia has set in and he worries about Banquo and his son.	<i>"I'm sorry she should have come to such a horrible end. But I accept no blame at all"</i>	Mrs Birling as part of the older more entrenched upper class is unable to take responsibility for her actions and the effect it has on others.		
<i>"I am in blood, steeped in so far, that, should I wade no more, returning were as tedious as go o'er"</i>	After killing Banquo and being haunted by his Ghost, Macbeth decides that his evil actions have taken him this far and to turn back would make his previous decisions pointless. To let go of his power would have it all have been for nothing.	<i>'The point is, you don't seem to have learnt anything.'</i>	At the end, when the Inspector leaves and they begin to question his existence, Sheila tells them that they have not learned the lessons the inspector has tried to teach, that their capitalistic and selfish attitude has led to the death of a vulnerable woman.		
<i>"Will these hands ne'er be clean?"</i>	Lady Macbeth is also overcome with guilt by Act 5, even after previously showing little regard for Duncan's death in Act 1 and 2. She sleepwalks, trying to clean her hands of the blood (guilt) that eventually leads to her death.	<i>We don't live alone. We are members of one body. We are responsible for each other. And I tell you that the time will soon come when, if men will not learn that lesson, then they will be taught it in fire and blood and anguish.</i>	The repetition of 'we' emphasises how society needs to work as a collective, as 'one body'. Priestley uses dramatic irony again here as 'fire and blood and anguish' refers to the death and destruction of WW1 and WW2. By believing in socialism and not capitalism, Priestley is arguing that society can avoid future conflict and pain.	How do I answer 7 or 8 An Inspector Calls? This is an essay question.	Read the question carefully, find the key words. Make a quick bullet point plan of moments in the play you can write about linked with the question, Write your introduction, ensuring you write about the context of the play in detail before linking it to the question. Write at least five analytical paragraphs (WHAT, HOW, WHY), referencing different moments in the play. You don't need to use quotes here, you can just talk about the moment in the play. In your analytical paragraphs, you must discuss how the play links with the context in detail (socialism, capitalism, younger generation v older generation, patriarchal systems)
<i>'dead butcher, and his fiend-like queen'</i>	Malcolm's final words on Macbeth and Lady Macbeth as he takes back the crown of Scotland in the final scene of the play, emphasising the effect their ambition ultimately had on them.				

Subject terminology - Statistics

Data	Information recorded for statistical purposes
Average	A calculated central value in a set of data, e.g. mean median and mode
Ungrouped data	Data that has not been categorised
Grouped data	Data that has been sorted into categories based on the variable you are interested in
Frequency	The number of times an event or value occurs
Construct	Accurately draw a graph to display given information
Interpret	To retrieve information from a chart or graph
Line of best fit	A line on a scatter graph which shows the general trend

How to : estimate the mean from a grouped frequency table

Cost	Frequency	Midpoint	mp x freq
$0 < c \leq 4$	2	2	4
$4 < c \leq 8$	3	6	18
$8 < c \leq 12$	5	10	50
$12 < c \leq 16$	12	14	168
$16 < c \leq 20$	3	18	54
Totals	25		294

$$\text{Estimated mean} = \frac{294}{25} = 11.76$$

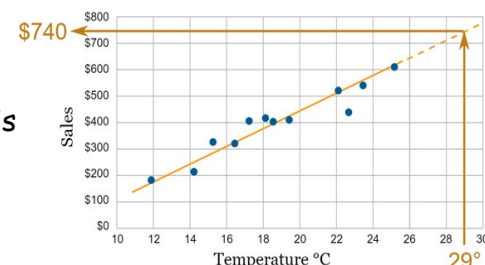
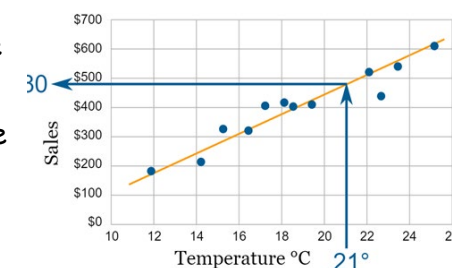
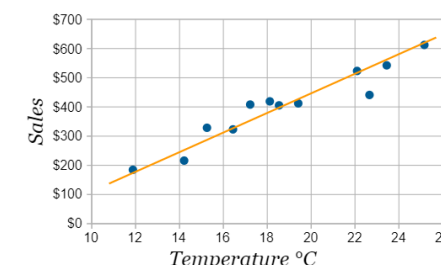
- 1) Find the midpoint (centre) of each group by adding the end points and dividing by 2
- 2) Multiply the midpoints by the frequencies
- 3) Sum the 'frequency' and the 'midpoint x frequency' columns
- 4) Divide the 'midpoint x frequency' total by the 'frequency' total
- 5) Check - does the mean fit within the data range?

Scatter graphs

Scatter graphs show the relationship between **bivariate** data (data that has two variables). Here, each point on the scatter graph shows the temperature and the ice cream sales of a different day

We can draw a **line of best fit** on our graph to show the general trend and use that line to **interpolate** (estimate the corresponding value of a value within the range of our data). Interpolation is generally a reliable way to estimate

We can also use a line of best fit to **extrapolate** (estimate the corresponding value of a value outside the range of our data). Extrapolation is less reliable as we can't be sure what happens to the trend outside of our recorded data



How to : calculate averages and the range

13, 6, 3, 100, 3

Mean	Add up all of the values then divide by how many pieces of data you have	$\frac{3 + 3 + 6 + 13 + 100}{5} = 25$
Median	Middle value when the data set is in size order	3, 3, <u>6</u> , 13, 100 The median is 6
Mode	Most common value	The mode is 3
Range	Largest value subtract smallest value	$100 - 3 = 97$

Subject terminology - Statistics

Data	Information recorded for statistical purposes
Bivariate data	Data on each of two variables, where each value is paired with a value of the other variable.
Frequency	The number of times an event or value occurs
Correlation	A mathematical relationship, if present it can be positive or negative
Interpret	To retrieve information from a chart or graph
Cumulative	The sum of all frequencies at a given point in a frequency table
Histogram	A graph whereby the frequency is represented by the area of each bar.

Drawing a histogram

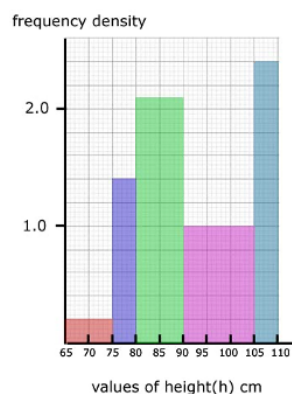
In a histogram, the area of the bar (and not the height) represents the frequency of the data.

To calculate the height of the bar, we use

$$\text{frequency density} = \frac{\text{frequency}}{\text{class width}}$$

Example:

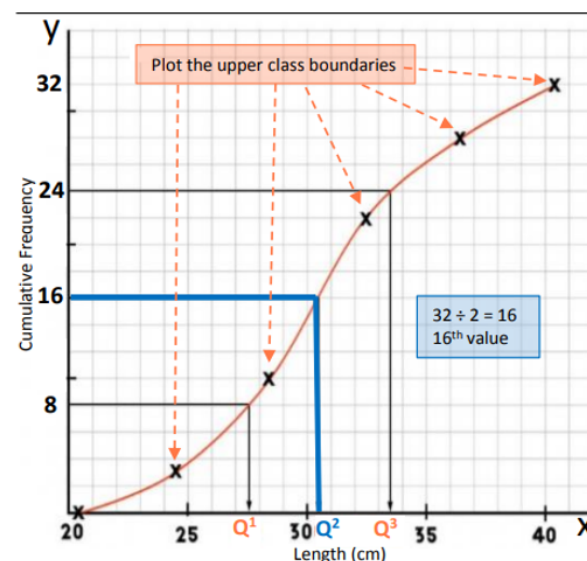
Height, h cm	Frequency	FD
$65 \leq h < 75$	2	$2 \div 10 = 0.2$
$75 \leq h < 80$	7	$7 \div 5 = 1.4$
$80 \leq h < 90$	21	$21 \div 10 = 2.1$
$90 \leq h < 105$	15	$15 \div 15 = 1.0$
$105 \leq h < 100$	12	$12 \div 5 = 2.4$

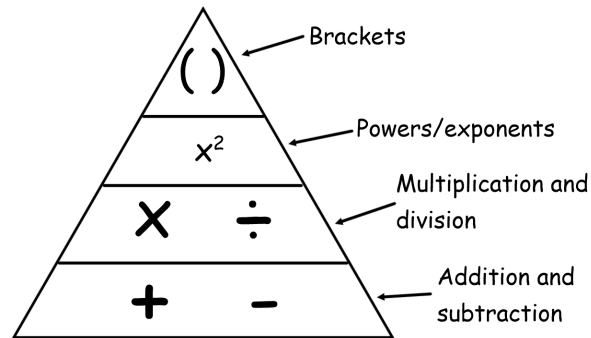


Drawing a Cumulative Frequency Curve

Length	Frequency	Cumulative Frequency
$20.5 < h \leq 24.5$	3	3
$24.5 < h \leq 28.5$	7	10 (= 3 + 7)
$28.5 < h \leq 32.5$	12	22 (= 3 + 7 + 12)
$32.5 < h \leq 36.5$	6	28 (= 3 + 7 + 12 + 6)
$36.5 < h \leq 40.5$	4	32 (= 3 + 7 + 12 + 6 + 4)

1. Complete the cumulative frequency table (as above)
2. Plot cumulative frequency on the y-axis and length on the x-axis
3. Plot each point at the upper-class boundary and connect with a smooth curve.
4. The median can be found by finding the halfway point on the y-axis ($32 \div 2 = 16$) drawing a line across until it intersects the curve and drawing a vertical line down to the x-axis
5. The interquartile range is found by splitting the curve into quarters and subtracting the LQ value from the UQ value



Order of Operations**Inverse Operations**

$$+ \longleftrightarrow -$$

$$\times \longleftrightarrow \div$$

$$\square^2 \longleftrightarrow \sqrt{\square}$$

$$\square^3 \longleftrightarrow \sqrt[3]{\square}$$

Multiplying Integers

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

$$+ \times + = + \quad - \times - = +$$

$$+ \times - = - \quad - \times + = -$$

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 $-3 + -5 = -8$

Square Numbers

$$1 \times 1 \text{ or } 1^2 = 1$$

$$2 \times 2 \text{ or } 2^2 = 4$$

$$3 \times 3 \text{ or } 3^2 = 9$$

$$4 \times 4 \text{ or } 4^2 = 16$$

$$5 \times 5 \text{ or } 5^2 = 25$$

$$6 \times 6 \text{ or } 6^2 = 36$$

$$7 \times 7 \text{ or } 7^2 = 49$$

$$8 \times 8 \text{ or } 8^2 = 64$$

$$9 \times 9 \text{ or } 9^2 = 81$$

$$10 \times 10 \text{ or } 10^2 = 100$$

$$11 \times 11 \text{ or } 11^2 = 121$$

$$12 \times 12 \text{ or } 12^2 = 144$$

Cube Numbers

$$1^3 = 1 \times 1 \times 1 = 1$$

$$2^3 = 2 \times 2 \times 2 = 8$$

$$3^3 = 3 \times 3 \times 3 = 27$$

$$4^3 = 4 \times 4 \times 4 = 64$$

$$5^3 = 5 \times 5 \times 5 = 125$$

Column Addition

$$\begin{array}{r} 1 \\ 29 \\ + 35 \\ \hline 64 \end{array}$$

9+5=14
14 is more than 10!

Column Subtraction

$$\begin{array}{r} 5 \\ 64 \\ - 27 \\ \hline 37 \end{array}$$

(10+4=14)

Written methods**Multiplication (Grid method)**

$$26 \times 5$$

X	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)

$$186 \div 6$$

$$\begin{array}{r} 0 \ 3 \ 1 \\ 6 \overline{) 1 \ 8 \ 6} \end{array}$$

6 doesn't divide into 1, so the 1 carries.

6 divides into 18, 3 times.

6 divides into 6, once.

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

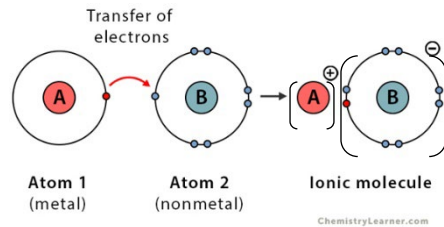
24.356 To 2 decimal places (digits after the decimal point)

24.36

Draw in your line then check the number to the right

Bonding

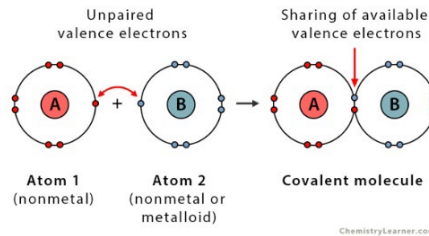
Ionic Bond



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.

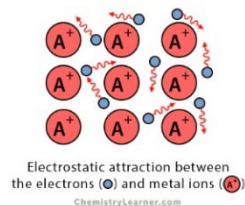
Covalent Bond



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

A covalent bond is the strong force of attraction between the nuclei of two atoms that are sharing one or more pairs of electrons

Metallic Bond



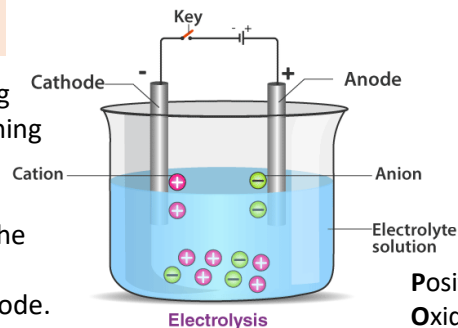
Metals need to lose electrons to become stable. If there are only metal atoms around the electrons have nowhere to go and become delocalised – they are free to move from ion to ion.

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 Anode Negative Is Cathode
Oxidation Is Loss Reduction Is Gain

Subject Terminology

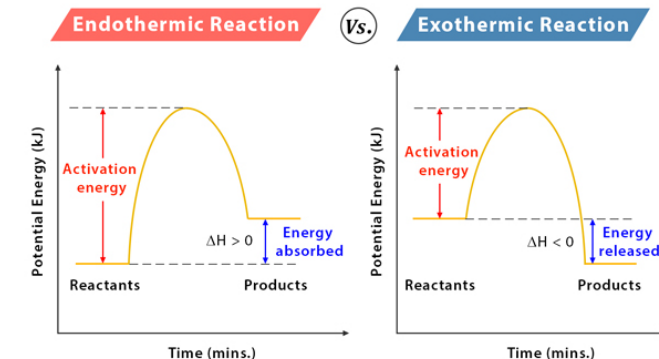
Key Word	Definition
Intermolecular forces	Weak forces of attraction between covalent molecules.
Electrostatic attraction	Forces of attractions between oppositely charged ions in a giant ionic lattice.
Atomic Mass	The number of protons and neutrons in the nucleus of an atom
Activation energy	The minimum 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

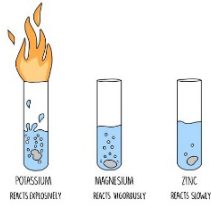
Exothermic reactions release heat energy into the surroundings. The energy in the bonds in the products have less energy than the bonds in the reactants.

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



Reactivity



increasing reactivity ↑

potassium
sodium
calcium
magnesium
aluminium
carbon
zinc
iron
tin
lead
hydrogen
copper
silver
gold
platinum

More reactive than
carbon
Extracted by electrolysis

Less reactive than
carbon
Extracted by reduction

Very unreactive
Found in their native
state

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.

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 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.

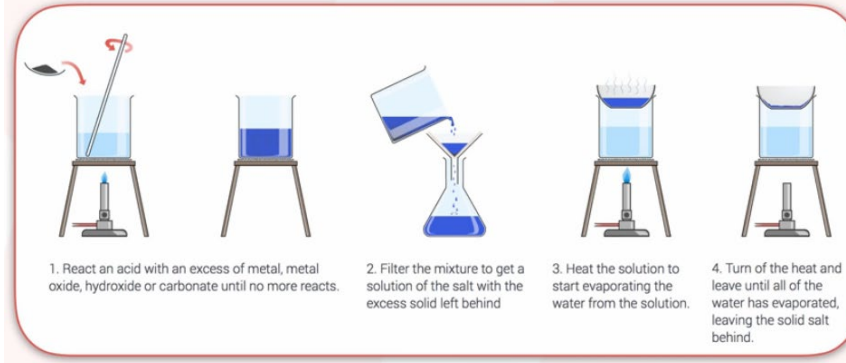
Group 7 Elements

- Also called the halogens.
- As elements they form molecules that contain two atoms.
- E.g. Cl₂ is chlorine

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.

Making Salts required practical



Identify the variables

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

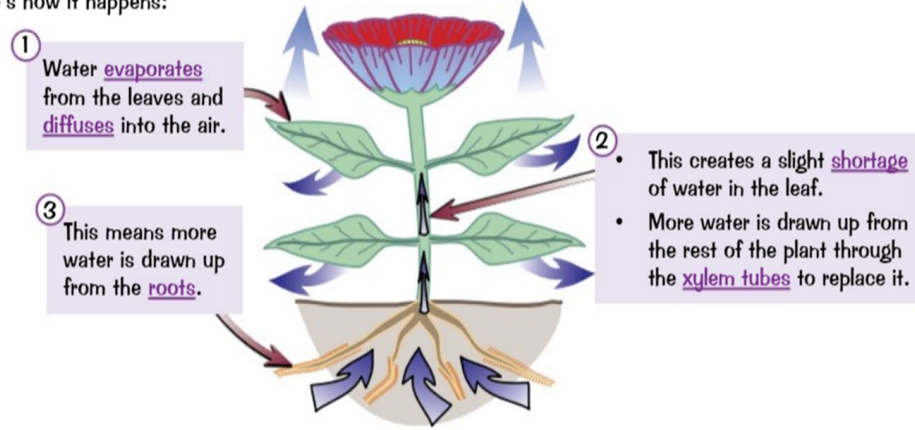
Dependent variable – the variable being tested or measured during a scientific experiment.

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

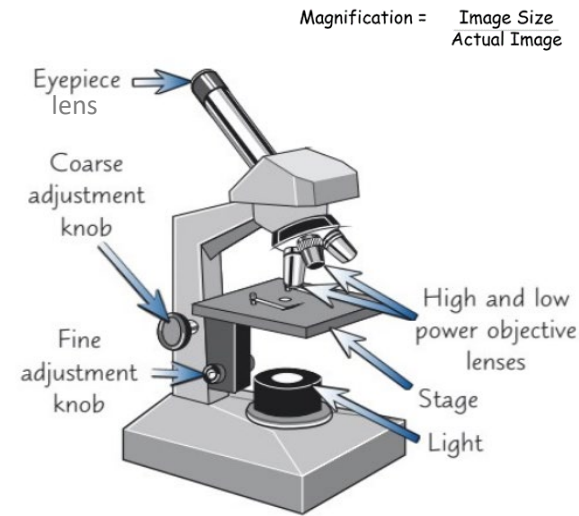


Transpiration is the Loss of Water from the Plant

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

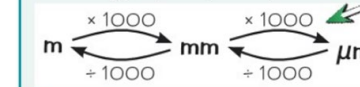


- 3) There's a constant stream of water through the plant. This is called the transpiration stream.

Microscopes core knowledge**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

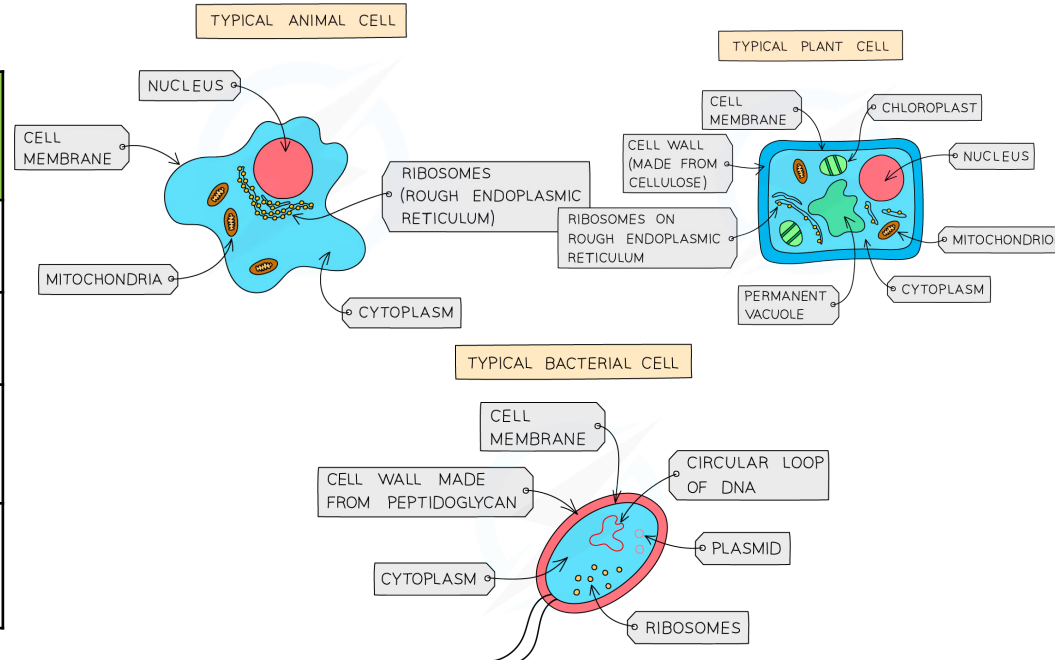
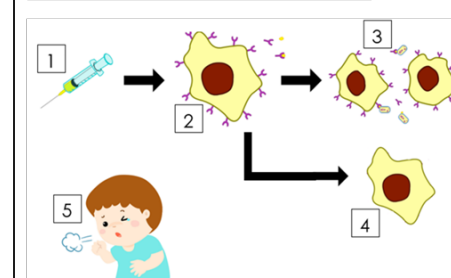
Length can have lots of units, including m, mm, and μm .



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

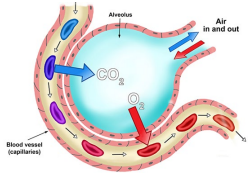
More white blood cells produce antibodies

4. Memory cells

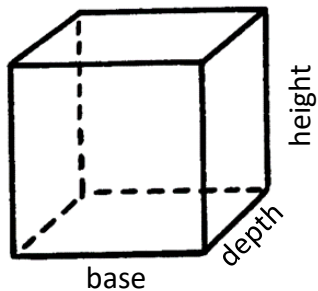
These cells stay in the blood in case we are infected in the future. Infection with same pathogen later on

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



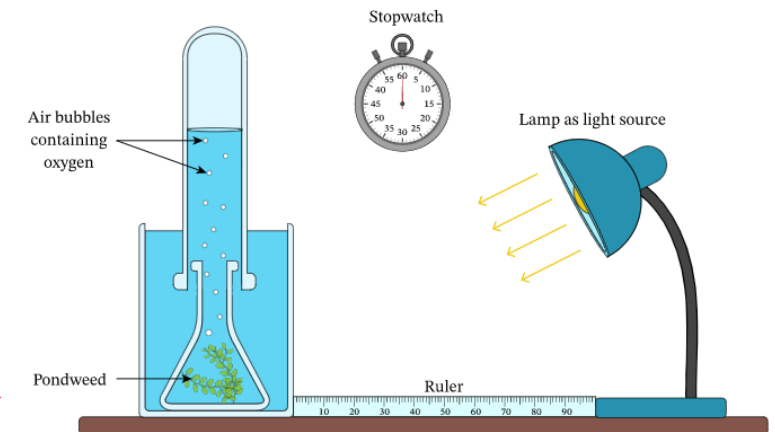
1. Calculate the surface area of 1 side of the cube by using base x height
2. A cube has 6 sides so to calculate the total surface area x the surface area of one side by 6.
3. Calculate the volume of the cube by doing base x height x width
4. Now divide surface area by the volume to get the ratio

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.



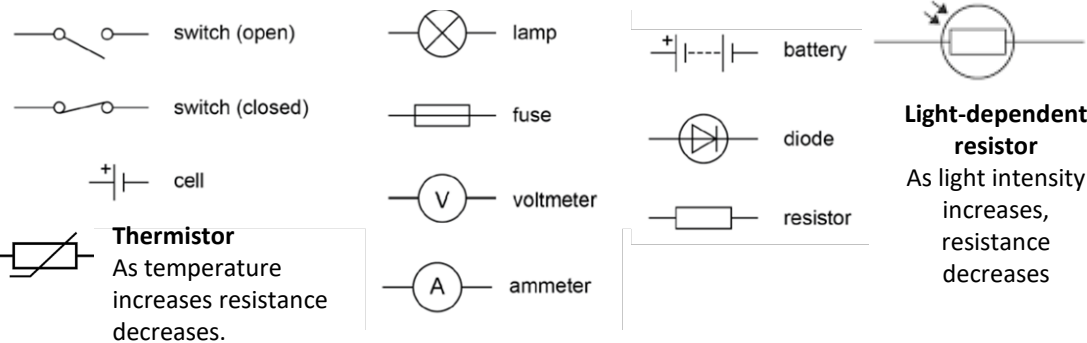
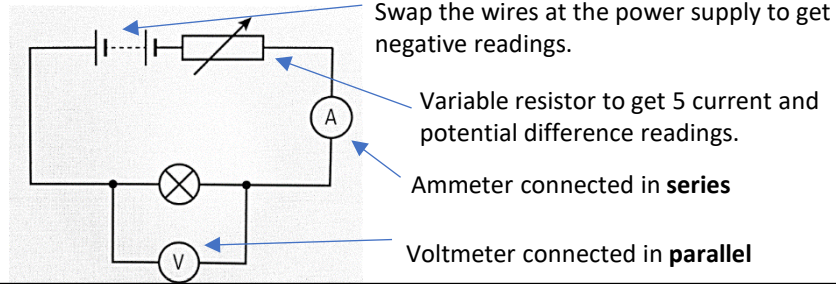
Independent variable = Light intensity

Dependent variable = Number of bubbles per minute

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

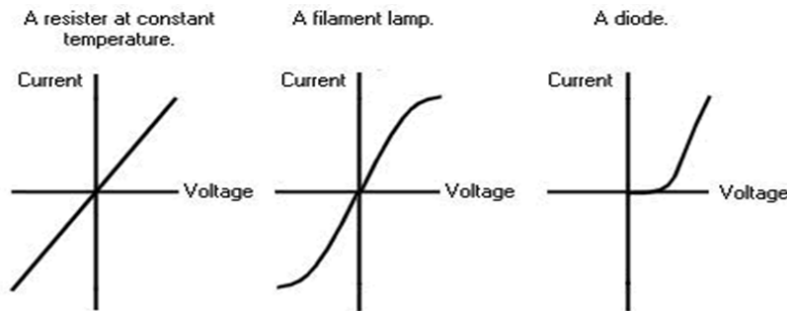
Electricity

Investigating circuit components required practical



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.

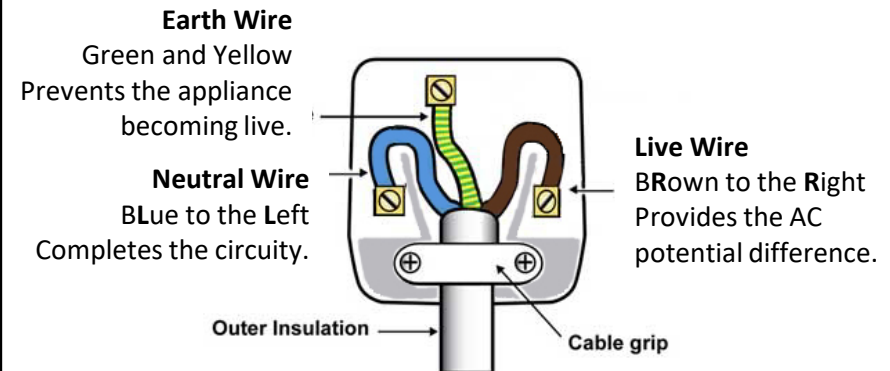
Equations to learn

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

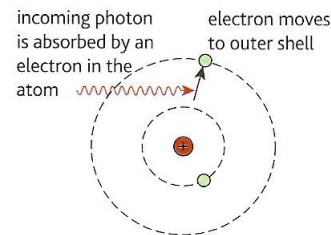
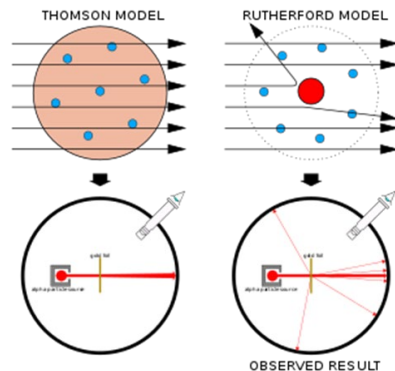


Radioactivity

	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 experimentDisproved the plum pudding model

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

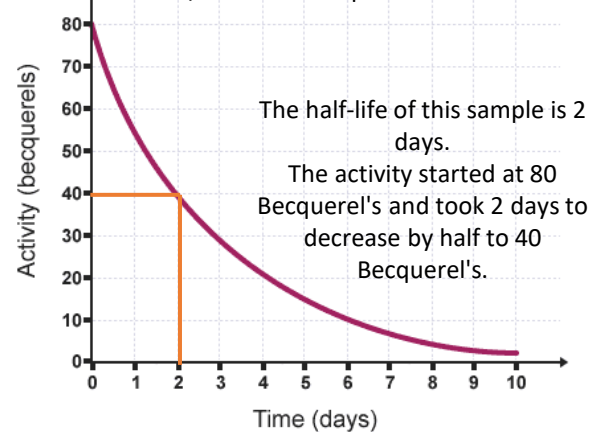
**Ionisation vs Excitation**

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

Ionisation: an electron is removed from the atom.

Half-life

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

**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

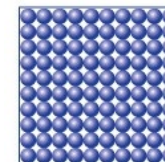
- Mechanical – when an object is moved by a force
- Sound } By radiation/waves
- Light }
- Electrical } By heating

Subject Terminology

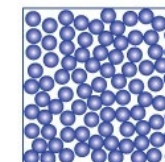
<u>Key Word</u>	<u>Definition</u>
Repeatability	Measurements are repeatable when repeated by the same person, using the same method and give similar results.
Reproducibility	Measurements are reproducible if similar results are obtained by different investigators with different equipment.
Zero error	Caused 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.
Renewable	An energy resource that cannot be replenished.
Non-renewable	An energy resource that can be replenished.

Arrangement and Behaviour of solids liquids and gases

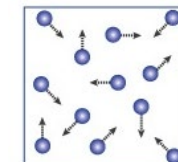
Solid particles are :
Tightly packed, regular pattern, most dense, vibrate around fixed positions, have the least internal energy, strong bonds between the particles



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



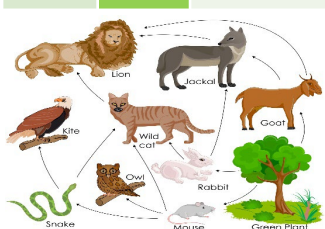
What is an Ecosystem?

An ecosystem is a system in which organisms interact with each other and with their environment.

Ecosystem's Components

Abiotic	These are non-living , such as air, water, heat and rock.
Biotic	These are living , such as plants, insects, and animals.

	Flora	Plant life occurring in a particular region or time.
	Fauna	Animal life of any particular region or time.



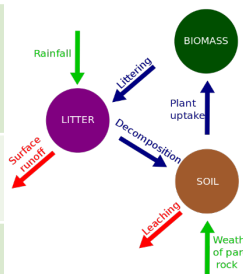
Food Web and Chains

Simple **food chains** are useful in explaining the basic principles behind ecosystems. They show only one species at a particular trophic level. **Food webs** however consists of a network of many food chains interconnected together.

Nutrient cycle

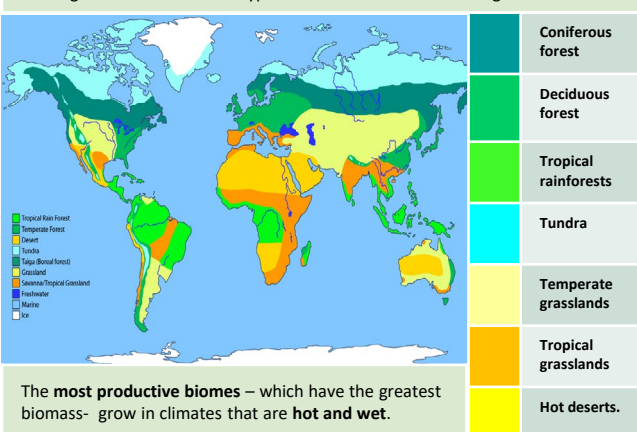
Plants take in **nutrients** to build into new organic matter. Nutrients are taken up when animals eat plants and then returned to the soil when animals die and the body is broken down by **decomposers**.

Litter	This is the surface layer of vegetation, which over time breaks down to become humus .
Biomass	The total mass of living organisms per unit area.



Biomes

A biome is a **large geographical area of distinctive plant and animal groups**, which are adapted to that particular environment. The climate and geography of a region determines what type of biome can exist in that region.



The **most productive biomes** – which have the greatest biomass- grow in climates that are **hot and wet**.

Biome's climate and plants

Biome	Location	Temperature	Rainfall	Flora	Fauna
Tropical rainforest	Centred along the Equator.	Hot all year (25-30°C)	Very high (over 200mm/year)	Tall trees forming a canopy; wide variety of species.	Greatest range of different animal species. Most live in canopy layer
Tropical grasslands	Between latitudes 5°- 30° north & south of Equator.	Warm all year (20-30°C)	Wet + dry season (500-1500mm/year)	Grasslands with widely spaced trees.	Large hoofed herbivores and carnivores dominate.
Hot desert	Found along the tropics of Cancer and Capricorn.	Hot by day (over 30°C) Cold by night	Very low (below 300mm/year)	Lack of plants and few species; adapted to drought.	Many animals are small and nocturnal: except for the camel.
Temperate forest	Between latitudes 40°- 60° north of Equator.	Warm summers + mild winters (5-20°C)	Variable rainfall (500-1500mm/year)	Mainly deciduous trees; a variety of species.	Animals adapt to colder and warmer climates. Some migrate.
Tundra	Far Latitudes of 65° north and south of Equator	Cold winter + cool summers (below 10°C)	Low rainfall (below 500mm/year)	Small plants grow close to the ground and only in summer.	Low number of species. Most animals found along coast.
Coral Reefs	Found within 30° north – south of Equator in tropical waters.	Warm water all year round with temperatures of 18°C	Wet + dry seasons. Rainfall varies greatly due to location.	Small range of plant life which includes algae and sea grasses that shelters reef animals.	Dominated by polyps and a diverse range of fish species.

Unit 1b

AQA

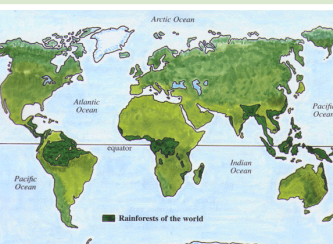
The Living World

Tropical Rainforest Biome

Tropical rainforest cover about **2 per cent** of the Earth's surface yet they are home to **over half of the world's plant and animals**.

Interdependence in the rainforest

A rainforest works through **interdependence**. This is where the plants and animals **depend on each other** for survival. If one component changes, there can be **serious knock-up effects** for the entire ecosystem.



Distribution of Tropical Rainforests

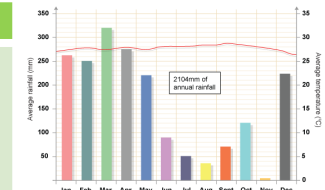
Tropical rainforests are **centred along the Equator** between the Tropic of Cancer and Capricorn. Rainforests can be found in South America, central Africa and South-East Asia. **The Amazon** is the world's largest rainforest and takes up the majority of northern South America, encompassing countries such as Brazil and Peru.

Rainforest nutrient cycle

The **hot, damp conditions** on the forest floor allow for the **rapid decomposition** of dead plant material. This provides plentiful nutrients that are easily absorbed by plant roots. However, as these nutrients are in high demand from the many fast-growing plants, they do not remain in the soil for long and stay close to the surface. If vegetation is removed, the soils quickly become **infertile**.

Climate of Tropical Rainforests

- Evening temperatures rarely fall below **22°C**.
- Due to the **presence of clouds**, temperatures rarely rise above **32°C**.
- Most afternoons have heavy showers.
- At night with no clouds insulating, temperature drops.

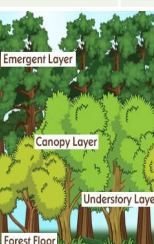


CASE STUDY: UK Ecosystem: Epping Forest, Essex



This is a typical English lowland deciduous woodland. **70% of the area** is designated as a **Site of Special Scientific Interest (SSI)** for its biological interest, with **66 %** designated as a **Special Area of Conservation (SAC)**.

Components & Interrelationships	Management
Spring	Flowering plants (producers) such as bluebells store nutrients to be eaten by consumers later.
Summer	Broad tree leaves grow quickly to maximise photosynthesis .
Autumn	Trees shed leaves to conserve energy due to sunlight hours decreasing.
Winter	Bacteria decompose the leaf litter, releasing the nutrients into the soil.



Layers of the Rainforest

Emergent	Highest layer with trees reaching 50 metres .
Canopy	80% of life is found here as it receives most of the sunlight and rainfall .
U-Canopy	Consists of trees that reach 20 metres high .
Shrub Layer	Lowest layer with small trees that have adapted to living in the shade .

Tropical Rainforests: Case Study Brazil

Brazil is a NEE country in South America.

Adaptations to the rainforest		Rainforest inhabitants
Spider Monkey	Strong limbs to help it climb	Many tribes have developed sustainable ways of survival. The rainforest provides inhabitants with... • Food through hunting and gathering. • Natural medicines from forest plants. • Homes and boats from forest wood.
Drip Tips	Allows heavy rain to run off leaves easily .	
Lianas & Vines	Climbs trees to reach sunlight at canopy.	

Issues related to biodiversity	What are the causes of deforestation?
--------------------------------	---------------------------------------

Why are there high rates of biodiversity?	Logging 	Agriculture 
• Warm and wet climate encourages a wide range of vegetation to grow. • There is rapid recycling of nutrients to speed plant growth. • Most of the rainforest is untouched.	• Most widely reported cause of destructions to biodiversity. • Timber is harvested to create commercial items such as furniture and paper. • Violent confrontation between indigenous tribes and logging companies.	• Large scale ‘slash and burn’ of land for ranches and palm oil. • Increases carbon emission. • River saltation and soil erosion increasing due to the large areas of exposed land. • Increase in palm oil is making the soil infertile.

Main issues with biodiversity decline	Mineral Extraction 	Tourism 
• Keystone species (a species that are important of other species) are extremely important in the rainforest ecosystem. Humans are threatening these vital components. • Decline in species could cause tribes being unable to survive. • Plants & animals may become extinct. • Key medical plants may become extinct.	• Precious metals are found in the rainforest. • Areas mined can experience soil and water contamination. • Indigenous people are becoming displaced from their land due to roads being built to transport products.	• Mass tourism is resulting in the building of hotels in extremely vulnerable areas. • Lead to negative relationship between the government and indigenous tribes • Tourism has exposed animals to human diseases.

Impacts of deforestation

Economic development 	Energy Development 	Road Building 
+ Mining, farming and logging creates employment and tax income for government. + Products such as palm oil provide valuable income for countries. - The loss of biodiversity will reduce tourism.	• The high rainfall creates ideal conditions for hydro-electric power (HEP). • These have relatively short life spans and can cause river water to become acidic due to rotting of organic material	• Roads are needed to bring supplies and provide access to new mining areas, settlements and energy projects. • In Brazil, the Trans-Amazonian Highway has opened up large areas of the forest to development

Soil erosion 	Sustainability for the Rainforest
- Once the land is exposed by deforestation, the soil is more vulnerable to rain. - With no roots to bind soil together, soil can easily wash away.	Uncontrolled and unchecked exploitation can cause irreversible damage such as loss of biodiversity, soil erosion and climate change.

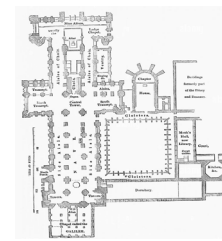
Climate Change 	Possible strategies include:
-When rainforests are cut down, the climate becomes drier. -Trees are carbon ‘sinks’. With greater deforestation comes more greenhouse emissions in the atmosphere. -When trees are burnt, they release more carbon in the atmosphere. This will enhance the greenhouse effect.	• Agro-forestry - Growing trees and crops at the same time. It prevents soil erosion and the crops benefit from the nutrients. • Selective logging - Trees are only felled when they reach a particular height. • Education - Ensuring those people understand the consequences of deforestation • Afforestation - If trees are cut down, they are replaced. • Forest reserves - Areas protected from exploitation. • Ecotourism - tourism that promotes the environments & conservation

Cold Environment: Alaska, USA

Alaska is located to the north west of mainland USA next to Canada. It is mostly wilderness with most of the state above the Arctic circle leading to extremes in temperatures.

Opportunities and challenges in the Cold Environments

Opportunities	Challenges
The fishing industry There are two main sectors of the industry: Commercial fishing. Since the 1870s, the sector has grown to employ one in ten Alaskans. Some of the biggest salmon, crab, and whitefish fisheries in the world are in Alaska. They provide 78,500 jobs and add US\$6 billion to the state economy annually.	The low population density of less than one person per square kilometre means that most of Alaska lacks surfaced roads. Hunters, miners and explorers must make their own way across the tundra. Snow and ice make some roads and tracks unusable for months of the year.
Mineral extraction In the late 1800s, Alaska was known as ‘the gold rush state’. Today, one-fifth of the state’s mining wealth still comes from gold (although silver, zinc and lead mining are also very important). Large gold mines must be managed carefully to minimise environmental impacts. Humans and ecosystems can be harmed by the toxic chemicals used to process gold ore (such as mercury, cyanide and nitric acid). Mining development has sometimes been halted due to environmental campaigns..	A process called solifluction takes place in summer. On slopes, the soil’s active layer starts to flow downhill. The thawed soil slides easily over the impermeable frozen layer below. Large amounts of soils and mud can collect at the base of slopes, covering highways that run along valley floors, cutting places off for months.
Tourism Tourism attracts between one and two million summer visitors each year, making tourism one of Alaska’s biggest employers, although some work is seasonal and poorly paid. Some tourists enjoy fishing, while others merely view the wildlife, with popular activities including whale watching and kayaking. Approximately 60 per cent of summer visitors are cruise ship passengers.	Permafrost underlies most of Alaska (Figure 8.14). The seasonal melting of the active layer means that offroad travel cannot take place during summer.
Energy Energy production is another big employer, especially the oil industry (see pages 106–107). More than 50 hydroelectric power (HEP) plants supply Alaskan communities with one-fifth of their electricity. Previously glaciated U-shaped valleys in Alaska are a perfect site for HEP generation. Geothermal energy is also being harnessed in tectonically active parts of the state. Alaska’s coastline is part of the Pacific ‘Ring of Fire’. A tourist resort at Chena Hot Springs near Fairbanks is now powered entirely by geothermal power.	Over time, the seasonal melting and re-freezing of the active layer results in great expanses of uneven ground surface called thermokarst (Figure 8.15) making travel impossible in some places. Frost heave – where pebbles and stones slowly rise upwards to the ground – can make tracks dangerous.
What can be done?	
Indigenous people and newcomers alike use high-pitched steep roofs for their homes so snow can slide off. Triple glazed windows help to keep the cold at bay. Today, new buildings are always raised on piles to prevent melting. These piles can lift a structure several metres above the surface and are sunk deep into the land, well below the lower limit of the active layer. Roads are now built on gravel pads one to two metres deep that stop heat transfer from taking place. Utilities such as water, sewerage and gas cannot be buried underground or they would freeze too. Instead, they are carried by utility corridors or ‘utilidors’. Airport runways are painted white to reflect sunlight and stop them from warming up too much on sunny days.	



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?

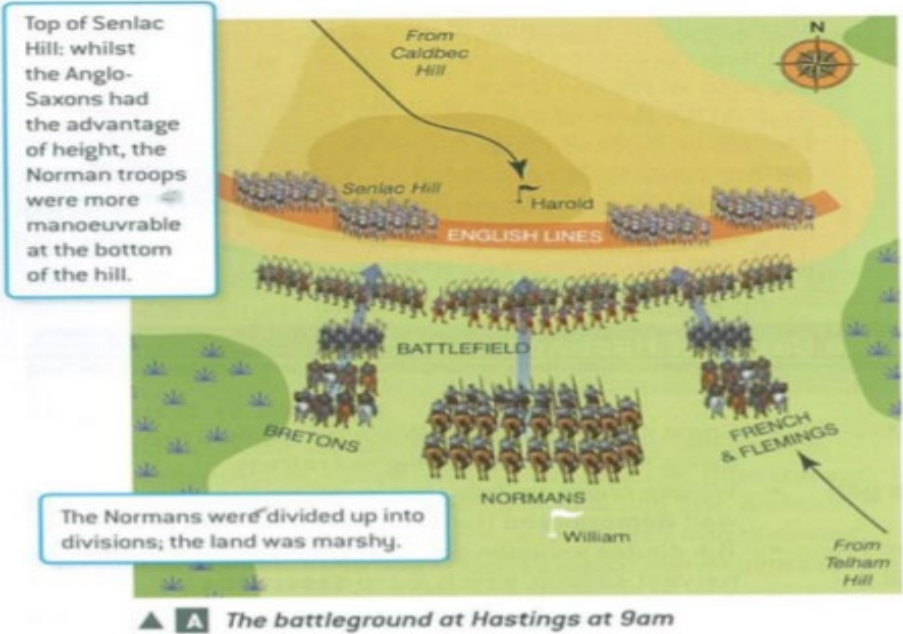
Architectural Style - Durham was similar to nearly all the new cathedrals built after the Norman Conquest and was designed to impress both externally and internally.	In a Romanesque style, Durham with decorated patterned columns, and capitals with simple carved mouldings. These design features gave an 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.

England before 1066 Sophisticated and civilised society with approximately 2 million inhabitants. Religion was key feature and everyone followed Catholic Christianity. What the Church said was absolute fact. King Edward the Confessor had ruled since 1042 and his reign had been stable and peaceful. Prior to this, England had been ruled by Edward’s half brother, Harthacnut, whose father was Danish (This is why we see so many claimants to the throne later on). The Godwin’s were a powerful ruling family in Norman England controlling a large area of England in 1066.	Lay of the land Most of the southern half of England was covered in forest. There were small villages where the forest had been cleared and land was farm. England was very wealthy and was often a target for foreign raiders such as Vikings. It had many natural resources which meant that it could establish good trade links with other countries. Previous kings had encouraged more trade with Scandinavian countries. King Edward had been brought up in Normandy, so England had strong trade links with France as well. England had a sophisticated minting system – it made its own coins.
Society The population was organised into a hierarchy. People were ordered by their level of importance with the King at the top, followed by the Church and the Earls, and the peasants at the bottom. The King and Earls had around 2500 – 3000 housecarls. The Earls could call upon their peasants to fight for them when necessary.	Religion Anglo-Saxons were very religious people and were all Christians who followed the Roman Catholic religion. The head of the Roman Catholic Church was the Pope and he lived in the Vatican in Rome. Catholics believed that the Pope was God’s personal representative on earth.

TECHNICAL VOCABULARY	
Successor	The person who should take over as King after he dies.
Illegitimate	A child who is not the product of a formal marriage.
Heir	The next in line to the throne.
Witan	The King’s Council whose primary function was to advise the King.
Housecarls	Full time professional soldiers in the Saxon army.
Cavalry	Highly trained and well equipped soldiers on horseback
Danelaw	Area of England in which the laws of the Danes held sway and dominated those of the Anglo-Saxons.
Earls	England was divided into Earldoms, areas of land ruled by powerful earls. These earls took orders from the King but some were as powerful as the King himself.
Sub-regulus	A deputy king.
Post Obitum	A designation or bequest of a Throne.

William prepares to invade: When Edward the Confessor died on the 5th Jan 1066, Harold Godwinson was crowned King of England the very next day. William started to mobilise his forces in preparation for the invasion of England as soon as he found out. Support from God: A Papal banner was given to William meaning that William had the Pope’s support. It was now a Holy War. Military Preparations: William did not have a navy so built a number of fat-bottomed boats that could transport horses. Weapons were created and ‘flat-pack’ castles were made. Men were recruited from all over France. Recruits joined because of the Papal Banner but also because they were promised land and riches. 8000 men joined. Getting across the Channel: Ships and men were gathered for a long period of time but they were well looked after. William also made sure that his fleet left at the most appropriate place for England (River Somme to Pevensey).	Harald Hardrada Invades September 1066 saw Harold Hardrada invade England. He sailed up the River Humber with 300 ships and landed 10 miles away from the city of York. Earls Edwin and Morcar were waiting for him with the Northern army and attempted to prevent them from advancing to York. This became known as the Battle of Fulford Gate. Battle of Stamford Bridge: King Harold had to move fast to deal with the Viking invasion. He travelled North with his private army and gathered forces as he went. He travelled 190 miles in four days. Hardrada and his troops were caught out by Harold’s attack. They had not expected Harold to reach Stamford Bridge so quickly. Although this was a victory for King Harold it was going to be short lived. Three days later he had to race south to deal with William’s invasion and fight in the Battle of Hastings.
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King Cnut Launched a campaign against England in 1015 and killed many English leaders. Agreed to split the Kingdom in two. By 1017 confirmed as King of all England. Divided England into Earldoms.	Edward the Confessor A highly devout Christian King who stabilised the Kingdom in times of trouble. Was responsible for causing the troubles of 1066 as he had no children and therefore no one to become his successor.	Edgar Aetheling Closest blood relative to Edward but he was only 14 years old and did not have much support or military experience. Edgar was an Anglo-Saxon so was supported by many earls. He was known as an outlaw as after 1066 he led many rebellions against the Normans.	Harold Godwinson Richest man in England, a skillful military leader and had the support of the Witan. Made King the day after Edward died. He was the most important earl in England (Earl of Wessex) and had acted as ‘sub-regulus’ for Edward.	William, Duke of Normandy Distant cousin of Edward. Had sent troops to help against Godwin’s rebellion. Proven warrior with military success. Edward had been raised in Normandy and William claimed that Edward promised him the throne earlier in his reign.	Harald Hardrada King of Norway. Powerful and successful Viking. He believed the Throne was his due to his father’s claim. A famous warrior and experienced ruler. Has support from people in the North of England.
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Speaking End of April / Beginning of May 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
- <u>Role play</u> – stay simple, ! = something you are not expecting, ? = ask a question - <u>Photocard</u> – 5 questions on topic (topic in bold print above photo) extend your answers, give lots of opinions - <u>General conversation</u> – 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 <u>synonyms</u> – 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	<u>Foundation</u> 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. <u>Foundation / Higher</u> 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 <u>Higher</u> 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
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	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	heado	estoyando
You	as es es	aste iste	abas ías	ías	ás	has.....ado	estásando
He	a e e	ó ió	aba ía	ía	á	ha.....ado	estáando
We	amos emos imos	amos imos	ábamos íamos	íamos	emos	hemos.....ado	estamosando
You.pl	áis éis ís	asteis isteis	abais íais	íais	éis	habéis.....ado	estáisando
They	an en en	aron ieron	aban ían	ían	án	han.....ado	estánando
Some common I R R E G	ir> voy ser>soy dar>doy estar>estoy hacer>hago	ir>fui ser>fui dar>di estar>estuve hacer>hice	ser>era ir>iba hay>había	Same as future tener>tendría venir>vendría poner>pondría salir>saldría	Same as conditional tener>tendré venir>vendré poner>pondré salir>saldré	abrir>abierto escribir>escrito hacer>hecho poner>puesto romper>roto	dormir>durmiendo seguir>siguiendo sentir>sintiendo vestir>vistiendo

U	tener>tengo	tener>tuve		saber>sabría	saber>sabré	ver>visto	
L	poner>pongo	poner>puse		poder>podría	poder>podré	volver>vuelto	
A	salir>salgo	saber>supe		haber>habría	haber>habré		
R				decir>diría	decir>diré		
S				querer>querría	querer>querré		

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 opinion.

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.

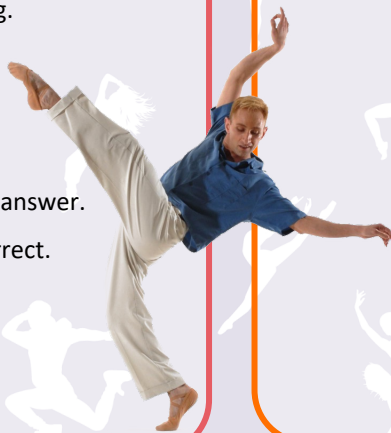
Suggest: Present a possible case or possible answer.

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

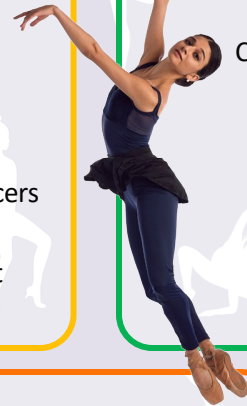
Facial expression

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

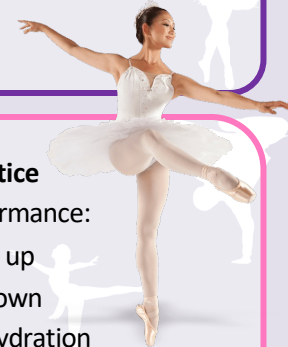
Dynamics

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



Responding to a Brief:**February:**

- Receive your brief.
- Create a budget by contacting local businesses for sponsorship.
- Select the performance genre and purchase copyrights to scripts and scores.
- Select your venue and block book the performance dates available.
- Organise and hold fundraising event/activity to raise extra money.

Early March:

- Select your production team by deciding exactly which staff you require.
- Announce the show and audition performers in the discipline required.
- Design and print the tickets or set up online ticket sales platform.
- Receive the script, scores and copyright legislation and check the legal requirements.
- Market the event and open ticket sales.
- Design, print and sell programmes.

Late March:

- Begin rehearsals.
- Design and build the set.
- Buy/rent costumes.
- Design hair and make-up for performers.

April:

- Complete set and props.
- Costume fitting.
- Full run-through of the event/performance.

May

- Technical rehearsal.
- Dress rehearsal.
- Performance event.
- Evaluation.

Subject Terminology

Venue	Where the performance takes place: school halls; local village or community hall; inside shopping centres or in open air public spaces (site specific); local theatre; social club, hotel function rooms.
Target audience	Who the performance is aimed at. For example: Age range of the audience; minority groups; parents and toddler groups; local community; national audience.
Style and genre	The <i>genre</i> of a play refers to the type of story being told and is decided by the <i>playwright</i> . The <i>style</i> of a play is how the work is presented on stage.
Personnel	Who will you need to employ to run your event? Music director; Technical director; Set designer; Choreographer; Light and sound technicians; Stage manager; Costume designer; Hair and make-up artists; Videographer.
Marketing	The activity or business of promoting and selling products or services. You will be marketing your event.

Budget:

Before you start, you will need to know 'how much money do I have to spend on my event?' You will then have a starting point from which you can work when calculating what you need to spend money on.

Different organisations will have access to a variety of budgets: amateur dramatic societies, professional theatre companies, performing arts groups, theatre schools, schools, community performing arts festivals, charitable organisations and national youth organisations.

Other organisations you can gain extra investment from: A local business; a grant from the Arts Council of England; a fundraising event within the community; Sponsorship, an advert in a programme; Non-financial development from business through the sharing of skills and resources.

Common Time

4/4 is also known as common time. Instead of 4/4 you can write:



TIME SIGNATURE / METRE

(How the pulse is grouped into bars)

Cut Common Time

2/4 is also known as cut-common time. Instead of 2/4 You can write:



Time Signatures

Written at the start of the music (and anywhere it changes) to show how many beats there are per bar, plus what type of beat

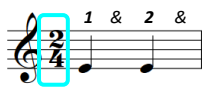
Simple Time Signatures **Each beat can be divided into two equal halves*



4 crotchet beats per bar



3 crotchet beats per bar



2 crotchet beats per bar

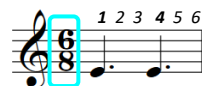
Compound Time Signatures **Each beat is dotted and can't be divided into two equal halves*



4 dotted crotchet beats per bar (12 quavers)



3 dotted crotchet beats per bar (9 quavers)



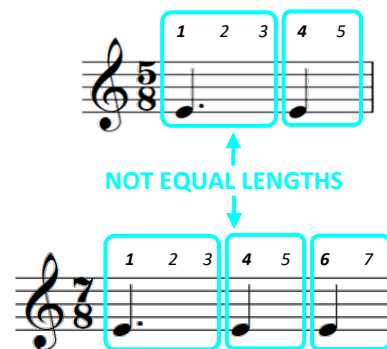
2 dotted crotchet beats per bar (6 quavers)

Listening Examples Go to Youtube to hear some examples of different metres:

2/4	Slaidburn March	<i>*A march is usually in 2/4 (Left, Right, Left, Right... = 1, 2, 1, 2...)</i>
3/4	Shostakovich's Waltz No.2	<i>*A waltz is a dance, usually in 3/4</i>
4/4	All That Jazz (from Chicago)	<i>*Chicago is a Musical</i>
5/4	Take Five (By Dave Brubeck)	<i>*Listen out for the jazz style</i>
7/4	The start of Money (By Pink Floyd)	<i>*Listen out for the opening bass riff</i>
6/8	We Are The Champions (By Queen)	<i>*Queen are a famous British Rock Band</i>
12/8	The Way You Make Me Feel (By Michael Jackson)	<i>*Count 1&a 2&a 3&a 4&a</i>

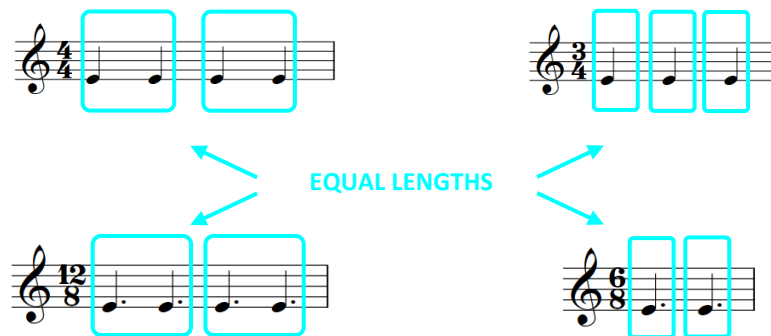
Irregular Time Signatures

Time signatures that can't be divided into equal groups of 2 or 3.



Regular Time Signatures

Time signatures that can be divided into equal groups of 2 or 3.



Writing Your Own Music

You must make sure every bar adds up to the correct number of beats. Changing metre is a good way to create contrast in your work.

Monophonic

Music with only one part (one note at a time).



*You can have as many players or singers as you want on the same part so long as it is the only part. No chords!

TEXTURE

Antiphonal

Two groups of musicians play/respond to each other from two different performing positions.



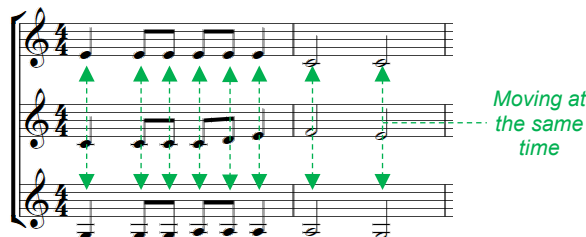
Melody & Accompaniment

A melody (tune) plus some accompanying chords or ideas.



Homophonic

All parts move in chords at the same time.



*Homo-phon-ic = same-sound... they have the same rhythm

Polyphonic

Several (2 or more) independent lines of music.



*Poly-phon-ic = many-sounds... several (two or more) different tunes.

Call And Response

One idea played/sung and then another performer(s) responding.



Octaves

When parts move together, an octave apart.



*Same note name but different pitch.

Pedal

A long or repeated note – usually in the bass.



Drone

Long or repeated notes – usually a 5th apart.



What Is The Instrument's Role

Melody – The tune.

Accompaniment – The parts supporting the tune.

Counter melody – A second melody that fits with the main tune.

Bass Line – The lowest sounding part.

Alberti Bass

Accompaniment found mainly in the left hand part of piano music.

Don't play all three notes of the triad together; break them up into four equal notes. Usually lowest, highest, middle, highest.



Why doesn't Mr Edwards like playing an Alberti Bass? It gives him the EBGBs.

Basso Continuo

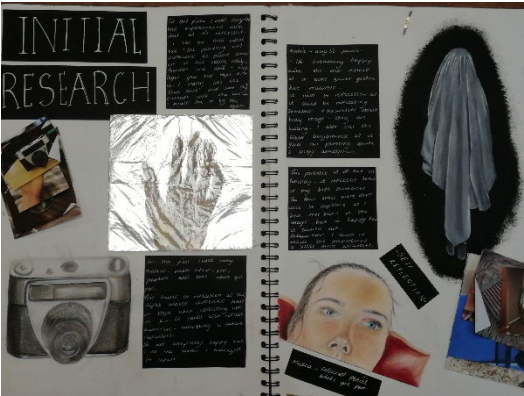
The part given to instruments in The Baroque Period that played the bass line and chords, accompanying the melody, using **figured bass**.

*Harpichord, bass viol, organ, lute...



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

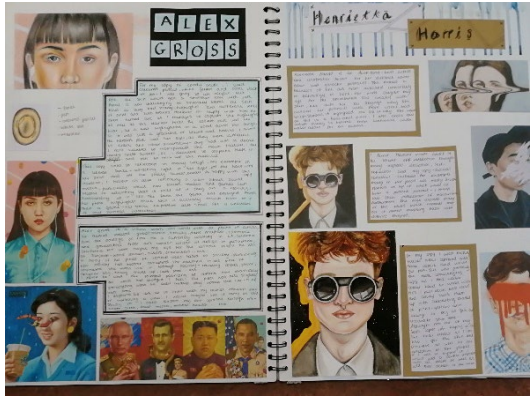
TECHNICAL VOCABULARY	
Response	A reaction (to the work of an artist)
Develop	To evolve, grow and improve
Experiment	To test (with different art media)
Annotate	Explanatory notes
Review	Evaluate
Refine	Improve
Primary source	Observed first hand
Composition	How objects, shapes and patterns are arranged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



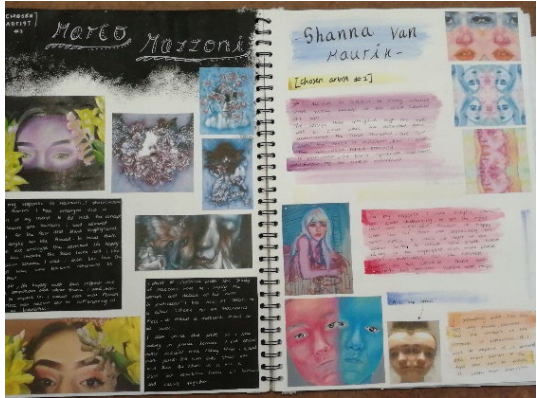
Week 1+2
Initial research



Week 8+9
Use your own photos for lots of responses and composition ideas and then select the best to draw



Week 3,4+5
Artist copies



Week 6+7
Artist responses



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

<u>What</u>	<u>Definition</u>	<u>What</u>	<u>Definition</u>
A static load	Does not move	<u>NET</u>	2D object which is cut scored and folded into a 3d. Cut lines shown as solid lines
A dynamic load	Moving	<u>Carbon footprint</u>	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	<u>Ecological and social footprint</u>	
Tensile	resist being pulled apart	<u>Folding and bending</u>	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	<u>Laminating</u>	bonding two or material to improve its strength, stability and flexibility.
Compression strength	the ability of a material to resist being compressed or squashed	<u>Fabric interfacing</u>	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.	<u>Folding and bending</u>	Materials manipulated through reshaping can gain many physical advantages
Torsional strength	is the ability of a material to resist being twisted	<u>Curves, arches and tubes</u>	can also be added to give more strength whilst using minimum material
Bending	occurs when both sides are under compression and tension.	<u>Ecological and social footprint</u>	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	<u>Safe working conditions</u>	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.	<u>Ecological issues in the design and manufacturing</u>	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	<u>Deforestation</u>	cutting down of trees
Stiffening Materials	Materials can be <i>laminated</i> to improve strength.	<u>Mining</u>	used to gather finite materials Surface and underground mining!
Interfacing	to stiffen a fabric	<u>Drilling</u>	getting oil and gas
Farming	A huge proportion of the earths crust is used as farmland. 11% - agriculture. 36% - growing crops		

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 <u>Night blindness</u>
	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 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>Vitamin D</u> - Controls calcium uptake - Strong bones and teeth Sources- Sunlight, Oily fish, meat, eggs butter		<u>Minerals</u>
<u>Vitamin E</u> Antioxidant, helps prevent heart disease and cancer Sources- Peanuts, avocado, Soya products		<u>Iron</u> Production of red blood cells Sources- Red meat, offal, green leafy veg
<u>Vitamin K</u> Blood clotting Sources- Fat soluble Vitamin K-Green leafy veg		<u>Calcium</u> Works with Vit D for strong bones and teeth Sources- Dairy products, canned fish

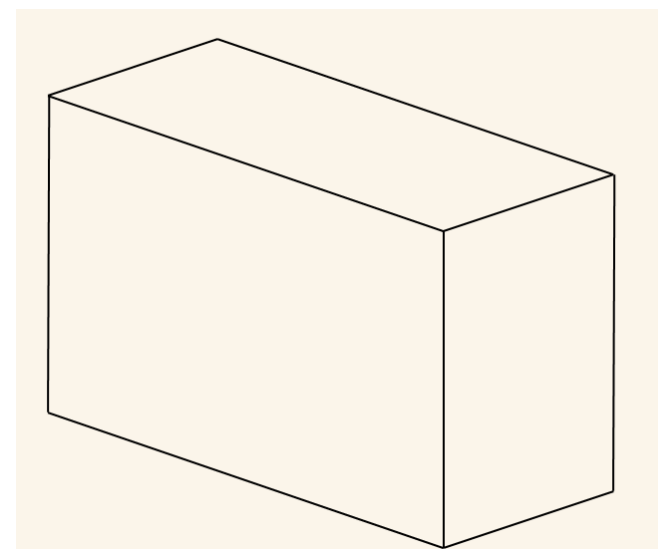
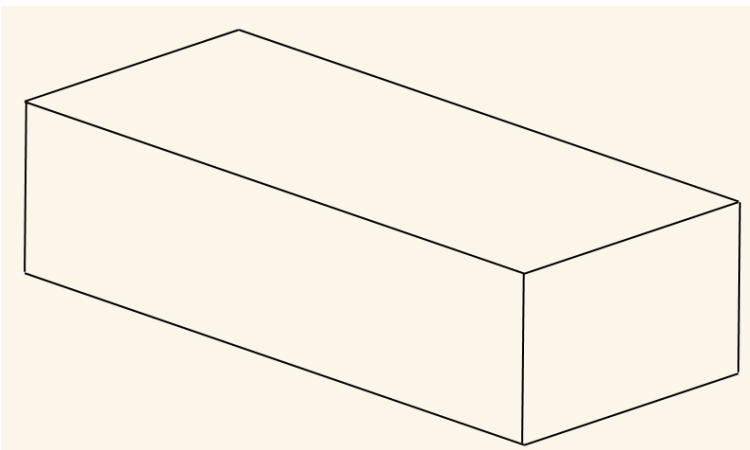
Importance of Water and hydration	
Regulates body temperature - sweating - Overheating of the body - Gets rid of waste products	Gets rid of waste products - Aids digestion - Reduces constipation
Keeps internal organs moist - So they don't rub together create friction/pain - Saliva to aid swallowing	Dehydration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

Brick dimensions

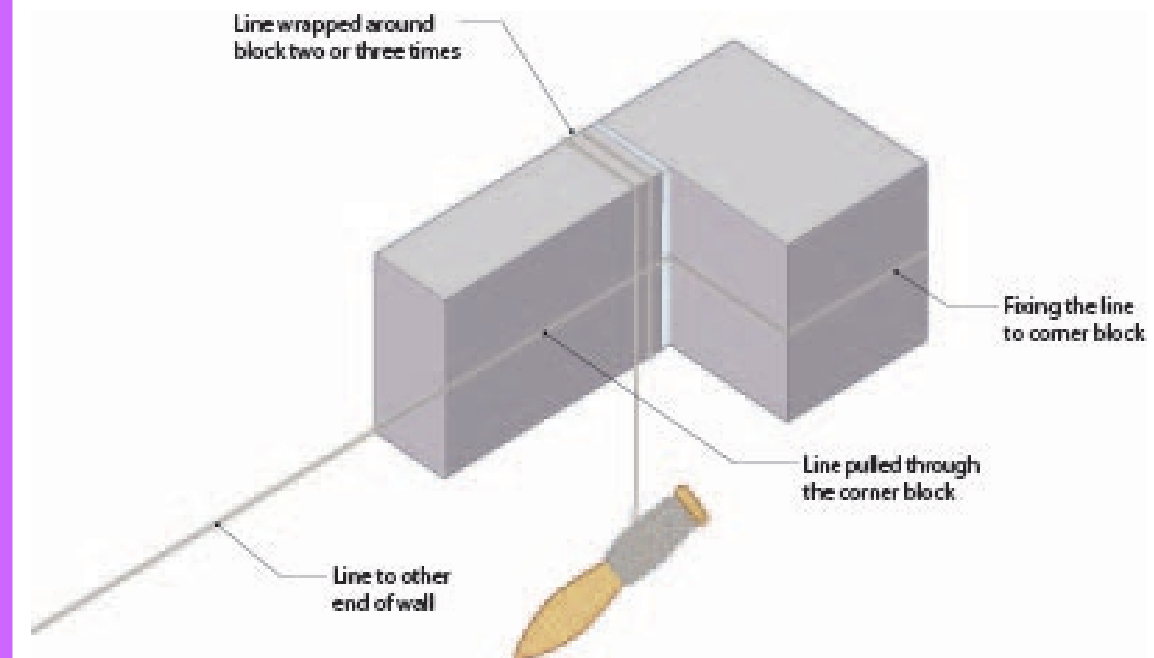
What is the length of a brick?
What is the width of a brick?
What is the depth of a brick?
How thick is a mortar joint?

Block dimensions

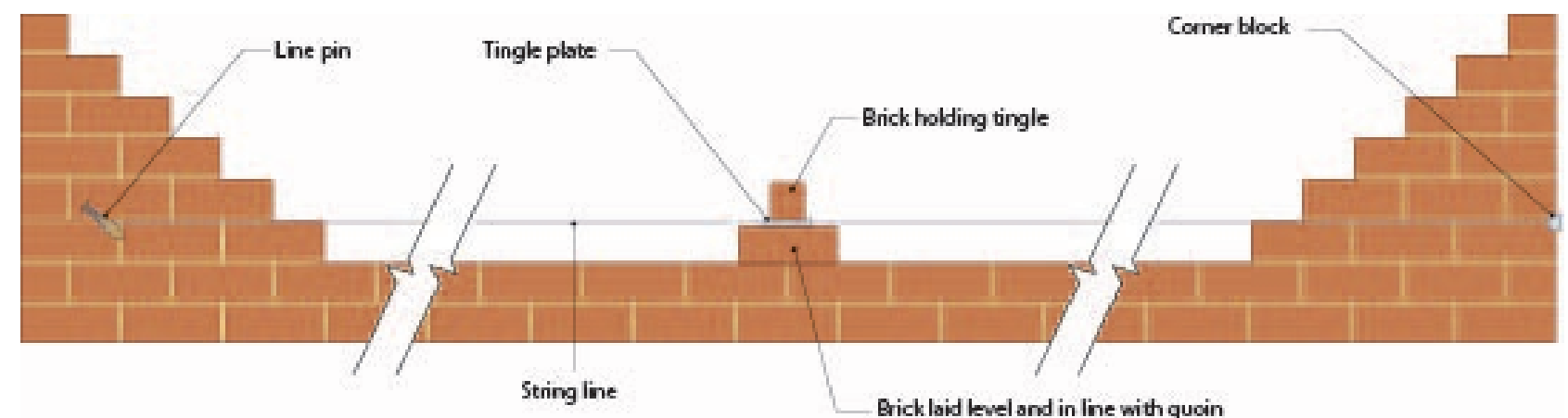
What is the length of a block?
What is the width of a block?
What is the depth of a block?



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?



Evidence to support a belief in life after death	
	Why might this support a belief in life after death?
Near Death Experiences	These are first hand accounts from those who have been near to death, providing information about what happens after life earth ends. Accounts often share similarities i.e. bright lights or seeing loved ones.
Past Life Memories	People have provided details of a previous life which when researched have been proven to be accurate, with other possible way to know this information.
Ghost Sightings	Ghosts are believed to be the spirits of the dead which appear in visible from to the living. A reliable witness may claim to have seen someone who is known to have died. Some believe these have unfinished business on earth which prevents them passing over completely.
Receiving a message from medium	People have received messages from mediums containing information that links directly to deceased loved one. Often there is no other way could have gathered that information.

Beliefs about heaven

1. Heaven is a spiritual existence of peace and happiness in the eternal presence of God.
2. It is often depicted as above the earth, a place where good people go after death for eternity.
3. Heaven is only for Christians as you have to believe in God to guarantee a place in heaven.
4. You have to believe in Jesus and live a good life to go to heaven.
5. Believers in God, not just Christians, will go to heaven.
6. It is a place of reward for both faith and good actions in life.



Beliefs about hell

1. Some Christians understand it to be a state of existence without God.
2. Traditional paintings depict it as a fiery place of eternal torment, suffering, torture and terror ruled by the Devil (Satan). It is usually depicted as below the earth.
3. Hell is the place where those who don't believe in God or Jesus go for eternity after death.
4. If you live an immoral life then you will go to hell.
5. Hell is an eternal state cut off from God. Any person not acknowledging God or follow God's teachings in their lifetime would face that eternity.



SUBJECT TERMINOLOGY	
Afterlife	The belief in continued existence in some form after physiological death. The belief that some aspect of an individual survives after death—usually, the individual's soul—is common to the great majority of the world's religions.
Eternity	Endless life after death.
Funeral	A ceremony or service held shortly after a person's death, usually including the person's burial or cremation.
Heaven	a place regarded in various religions as the place where God and the angels reside, and of the good after death.
Hell	a place regarded in various religions as a spiritual realm of evil and suffering, often traditionally depicted as a place of perpetual fire beneath the earth where the wicked are punished after death.
Judgement	The belief that a person will be judged by God to decide their destiny in the afterlife.
Medium	A person who claims to be able to communicate with dead people in the spirit world.
Nibbana	A Buddhist word meaning ‘quenching’ of the activities of the world and its suffering.
Near death experience	An occurrence in which a person comes very close to dying and has memories of a spiritual experience (such as meeting dead friends and family members or seeing a white light) during the time
Paranormal activity	Events or phenomena such as telekinesis or clairvoyance that are beyond the scope of normal scientific understanding.
Rebirth	The process of being reincarnated or born again.
Reincarnation	The belief that an individual does not live just one life, but that they live multiple lives, one after the other..
Revelation	The divine or supernatural disclosure to humans of something relating to human existence.
Spiritualism	A system of belief or religious practice based on supposed communication with the spirits of the dead, especially through mediums.

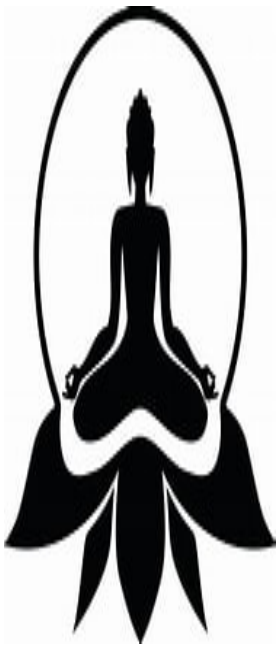
Tibetan Wheel of Life



1. To Buddhists, existence is a cycle of life, death, rebirth and suffering that they seek to escape altogether, and the Tibetan Wheel of ife shows this.
2. The Tibetan Wheel of Life illustrates the process of dependent arising (the idea that all things change and all things are interconnected) in relation to human life, death and rebirth.
3. The Wheel is divided into five or six realms, or states, into which a soul can be reborn. It is held by a demon. Around the rim are depicted the twelve stages of dependent origination.
4. The frightening figure holding the wheel is Yama, the Lord of Death or Monster of Impermanence. He has three eyes and wears a crown of skulls. Yama symbolises the impermanence of everything. The beings he holds are trapped in eternal suffering by their ignorance of the nature of the universe. Buddhism teaches that death is not the end and is not to be feared.
5. The outer circle is 12 links or stages of a human’s life (nidanas); the 12th link (old age and death) leads to the first link (ignorance). This shows the Buddhist teaching of rebirth; the wheel shows the cycle of birth, death, then rebirth this cycle is called **samsara**.
6. Depicted in the spokes of the wheel are the six (originally, five) realms of rebirth (*gatis*): the god realm, the realm of the *asuras* (originally included in the god realm), the realm of the hungry ghosts (*pretas*), the hell realm, the animal realm, and the realm of human beings.

Karuna (compassion); Metta (loving-kindness)	
When Buddha became enlightened what choice did he face?	He faced the question of what to do next – keep the knowledge and understanding to himself or share and teach others?
Why did Buddha decide to share his knowledge?	Buddha could see hardship in the world and he wanted to share his knowledge of how to overcome it out of compassion for those who were suffering. This compassion is called karuna.
What is Karuna one of?	Karuna is one of the four sublime states in Buddhism which are loving-kindness; compassion; sympathetic joy (happiness for others) and equanimity (maintaining stability and calm in the face of happiness and suffering).
For Buddhists why do wisdom and compassion go together?	Wisdom and compassion should be developed together as you cannot have one without the other or it could become unskilful.
What is metta and why should Buddhists develop this?	Metta is loving-kindness; showing a benevolent, kind friendly attitude towards other people. Buddhists develop this to dissolve away acting out of greed, ignorance or hatred.
What are the 5 steps in loving-kindness meditation?	It consists of five steps to grow loving-kindness: - 1. Yourself 2. A good friend 3. A ‘neutral’ person 4. A ‘difficult person 5. All four of these people gradually followed by all other people.

The Five Moral Precepts
The Five Moral Precepts are: - 1/ To not take life. 2/ To not take which is not given to you. 3/ To not take anything that is a misuse of the senses or sexual misconduct. 4/ To avoid wrong speech. 5/ To avoid intoxicants that cloud the mind. Due to these precepts many Buddhists are vegetarian or vegan; they will not steal from, manipulate or exploit other people; they shouldn’t engage in sexual activity that causes harm to others; Buddhists should speak truthfully, kindly and helpfully and they should avoid alcohol or drugs as these hinder calm and awareness. 



Kamma and rebirth	
What is kamma?	A person’s actions; the idea that skilful actions result in happiness and unskilful ones in suffering.
What are skilful and unskilful actions rooted in?	Skilful – good, ethical actions and behaviours such as generosity, compassion and understanding. Unskilful – bad, unethical actions or behaviours such as craving, greed, hatred and ignorance.
According to Buddhists what do your actions impact on?	Your actions impact on your happiness and suffering right now but also in your future rebirths, as t links to which realm you are reborn into.
How is the idea of kamma empowering?	Buddhists can change the future through their actions, bu cultivating skilful mental states and actions.
How does kamma link to the Eightfold Path?	Kamma is concerned with right actions which is one of the elements of the Eightfold Path they need to reduce suffering to achieve enlightenment.
Why is kamma so important in Buddhism?	Kamma is an incentive to cultivate a more skilful way of life- you benefit more, other people benefit as well.

The Six Perfections	
	The Six perfections: - 1/ Generosity or giving 2/ Morality 3/ Patience 4/ Energy 5/ Meditation 6/ Wisdom
Generosity – 3 main types of giving – giving material goods; giving protection from fear. Buddhists should give without expecting anything in return. Morality – most Buddhists follow the five moral precepts. Mahayana Buddhists try to follow 5 more – not talking about other people’s errors or faults; not to praise oneself and speak badly of others; not to be stingy; not to be angry and not to speak badly of the 3 refuges. Patience – a Bodhisattva embodies patience, tolerance and endurance. Buddhists should learn to endure personal hardship or suffering, to practice compassion and to have patience. Energy – this is the cultivation of mental energy and strength; Buddhists should put effort into their practice of the Dhamma. Meditation – this helps Buddhists develop the concentration and awareness needed to achieve the sixth perfection, which is wisdom.	



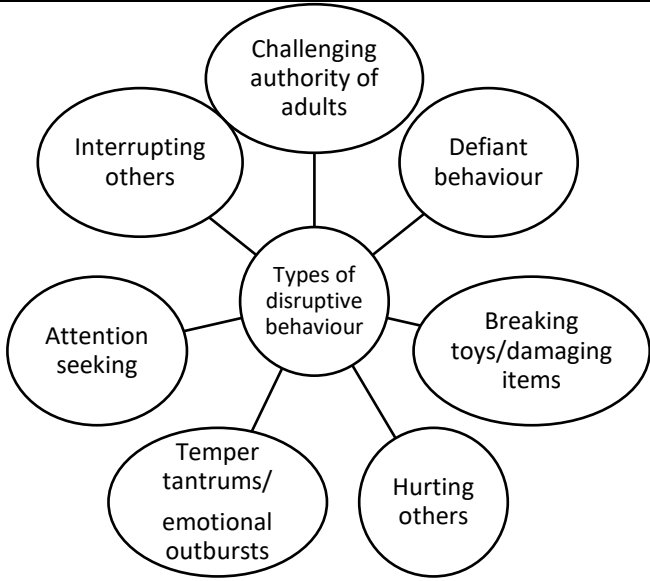
Physical needs that may impact on play, learning and development.	
What is a sensory impairment?	A sensory impairment would include a difficulty in seeing (visual impairment) or hearing (hearing impairment).
What are some possible impacts of visual impairments?	Motor skills can be affected; may not move 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 socialise 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 behaviour 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.



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.

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 – paid work/employment, labour in the home, patriarchal culture, sexuality, male violence and the state. Public patriarchy is now more likely to exist than private patriarchy.

Poverty

Definitions of poverty

Absolute

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

Relative

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

Functionalists – official statistics are accurate

No

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

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

No

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 earned

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

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

No

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

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 bourgeoisie who can hire and fire people e.g. if they demanded higher wages, the bourgeoisie 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 bourgeoisie 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

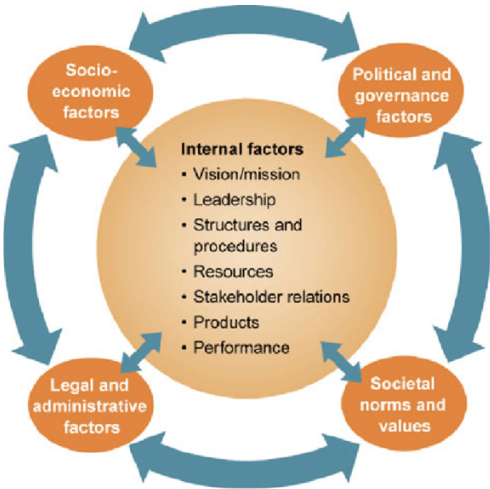
Ethnicity & Power:

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.

P	E	S	T	E	L
- Government policy - Political stability - Corruption - Foreign trade policy - Tax policy - Labour law - Trade restrictions	- Economic growth - Exchange rates - Interest rates - Inflation rates - Disposable income - Unemployment rates	- Population growth rate - Age distribution - Career attitudes - Safety emphasis - Health consciousness - Lifestyle attitudes - Cultural barriers	- Technology incentives - Level of innovation - Automation - R&D activity - Technological change - Technological awareness	- Weather - Climate - Environmental policies - Climate change - Pressures from NGO's	- Discrimination laws - Antitrust laws - Employment laws - Consumer protection laws - Copyright and patent laws - Health and safety laws



TECHNICAL VOCABULARY	
Demand	Is the amount of customers, or potential customers, actively wanting your goods or services.
Financing	Finding the money to do something.
Contingency plan	Is a back-up plan for when things go wrong for an enterprise
Gross profit	Is the money made from selling a product (sales revenue) after the cost of sales has been deducted. It is calculated before tax has been taken off. Profit after tax is called net profit.
Loan	Is a sum of money borrowed that is expected to be paid back to the lender, usually with interest added on.
Tax	Taxation is the amount of money an enterprise or entrepreneur must pay the government each year. Enterprises and entrepreneurs are taxed on the amount of money they earn from running the business.
Recession	When the number and value of goods and services produced is going down. This may be followed by a lack of consumer confidence and people buying less as they are concerned about the future.
Legislation	Relates to the laws of a county. Which everyone must obey.
Competitive Advantage	Is the advantage gained by offering superior goods or services to those of competitors or offering cheaper prices

S STRENGTHS	W WEAKNESSES	O OPPORTUNITIES	T THREATS
• Things your company does well • Qualities that separate you from your competitors • Internal resources such as skilled, knowledgeable staff • Tangible assets such as intellectual property, capital, proprietary technologies etc.	• Things your company lacks • Things your competitors do better than you • Resource limitations • Unclear unique selling proposition	• Underserved markets for specific products • Few competitors in your area • Emerging need for your products or services • Press/media coverage of your company	• Emerging competitors • Changing regulatory environment • Negative press/ media coverage • Changing customer attitudes toward your company

WordStream

Methods of measuring success	
Survival	Measuring survival is based on the number of years an enterprise has traded. The first five years of business are usually the most challenging. The longer the enterprise trades for, the more successful it has been.
Making a living	Being able to create a comfortable and happy life for themselves and their family is a measure of success. Being able to make money proved the enterprise is a success.
Sales Volume/ value	The number of customers (numbers of sales) and value (amount each customer spends) of those customers are also measures that demonstrate success.
Market Share	The percentage of the market that an enterprise controls. For example, if an enterprise has £10,000 worth of business per year of the car washing market, in an area where the market is worth £100,000 a year, they have 10% of that market.

Potential benefit of hosting a major sporting event	Reason how or why this aspect may be of benefit
Increased tourism	Results in more people spending money. Visitors may come again another time. Shows the place in a positive light.
Increased trade	Shows other towns/countries that the host place is doing well economically and is a 'safe bet' to do business with. Is a 'showcase' to the wider community/world.
Boost to businesses	Increased visitor numbers mean more people staying in hotels, using facilities, visiting attractions etc.
New facilities	Many major sporting events require new or significantly upgraded facilities. These will (hopefully) be of use for years to come.
Make a profit	It is possible to make a profit just from ticket, media rights, merchandise etc sales.
Regeneration of run down areas	Some events happen in areas in need of regeneration, allowing whole areas to have millions spent on them when they otherwise wouldn't have done.
Political (popular with voters)	Lots of voters are in favour of major sporting events being held in their town/country so will think well of the political party in power at that time.
Increase in national pride	Pride in their home town/country/nation putting on a 'show' and performers doing well on 'home soil' helps create a collective sense of national pride.
People enjoy it	It's fun! People enjoy the party like atmosphere and being part of history.

Potential drawback of hosting a major sporting event	Reason how or why this aspect may cause concern
Hugely expensive	It is hugely expensive to host a major sporting event, organising committees need to find the funds to cover the preparation before any money starts to be recouped.
Might make a loss	Sometimes the money that is made from hosting the event does not cover the costs of hosting it in the first place, leaving the country/town in debt because of it.
Security is a big concern	Risks from terrorists or extremist groups are a real threat. Huge amounts of money and massive security operations need to be put in place to guarantee safety.
Transport and communication might not cope	The increased numbers of people will place great strain on transport and communication networks. They may need massive investment in order to cope.
Disused stadiums etc afterwards	There are many cases of stadiums standing empty and being left to rot once the event is over and the crowds go home.
Can attract criticism from voters	If voters are not behind the idea of the event or are concerned about the money, security etc then this will reflect badly on the political party in power.
Can attract criticism if there are problems	If things go wrong with the planning and organisation then the whole world could be left criticising and making fun of the event.
Opportunity for protest	A time when all eyes are on the host place is the perfect time for groups with a message they want to be heard, to make themselves known through protests etc. this can reflect badly on the host.