Student Name:

MAGNUS
CHURCH OF ENGLAND
ACADEMY

Knowledge Organiser: February 2026

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

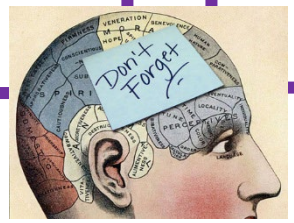
8. Write a set of test questions for yourself using the organiser.
    - Answer these without the organiser the next day.
    - Swap your questions with a friend to increase challenge.
    - Turn your questions in to a game by putting them on cards and playing with friends.

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 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; insuffi-cient.
Nuisance	A person or thing causing an inconvenience or annoy-ance.
Faith in humanity	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

'For brave Macbeth--well he deserves that name --'	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.
'Stars, hide your fires; / Let not light see my black and deep desires, / The eye wink at the hand. '	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).
'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"	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.
"Will all great Neptune's ocean wash this blood clean from my hand"	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.
'To be thus is nothing but to be safely thus'	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 am in blood, steeped in so far, that, should I wade no more, returning were as tedious as go o'er"	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.
"Will these hands ne'er be clean?'	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 top her death.
'dead butcher, and his fiend-like queen'	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.

An Inspector Calls

'The Titanic – she sails next week…and unsinkable, absolutely unsinkable.'	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,
"But these girls aren't cheap labour- they're people."	Sheila shows that unlike her father she is able to change and begins to see those in a lower class as people, not commodities.
"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?"	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'.
"Why shouldn't they try for higher wages? We try for the highest possible prices"	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.
"I'm sorry she should have come to such a horrible end. But I accept no blame at all"	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.
'The point is, you don't seem to have learnt anything.'	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.
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.	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.

English Literature Paper 1

How long is it?	1 hour, 45 minutes.
How many questions are there?	You have to answer two questions on Macbeth (1 hour) and one question on An Inspector Calls (45 minutes).
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.
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.)
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)

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 of 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

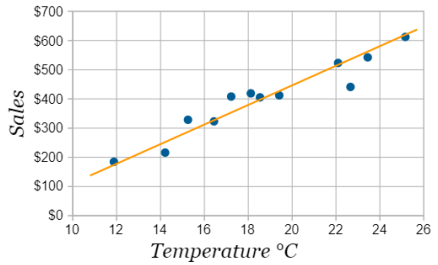
Cost	Frequency	Midpoint	mp x freq
$0 < c \leq 4$	2	2	4
$4 < c \leq 8$	3	6	18
$8 < c \leq 12$	5	10	50
$12 < c \leq 16$	12	14	168
$16 < c \leq 20$	3	18	54
Totals	25		294

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

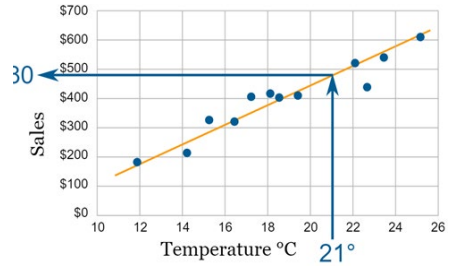
1) Find the midpoint (centre) of each group by adding the end points and dividing by 2
2) Multiply the midpoints by the frequencies
3) Sum the 'frequency' and the 'midpoint x frequency' columns
4) Divide the 'midpoint x frequency' total by the 'frequency' total
5) Check – does the mean fit within the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

Scatter graphs

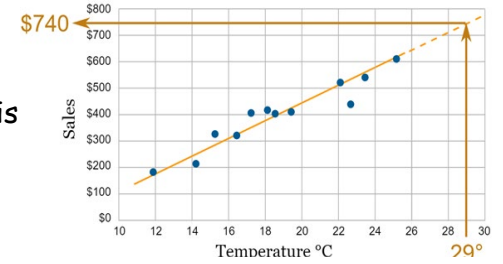
Scatter graphs show the relationship between **bivariate** data (data that has two variables). Here, each point on the scatter graph shows the temperature and the ice cream sales of a different day



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, 6, 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 of 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

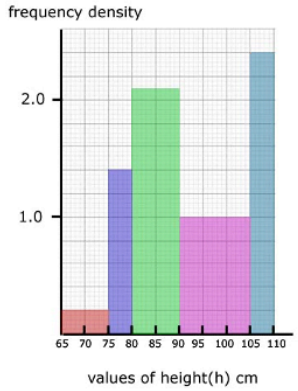
In a histogram, the area of the bar (and not the height) represents the frequency of the data.

To calculate the height of the bar, we use

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

Example:

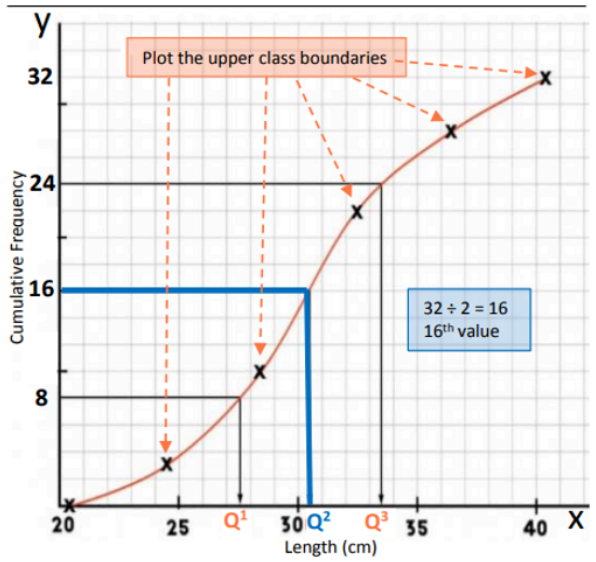
Height, *h* cm	Frequency	FD
65 ≤ h < 75	2	2 ÷ 10 = 0.2
75 ≤ h < 80	7	7 ÷ 5 = 1.4
80 ≤ h < 90	21	21 ÷ 10 = 2.1
90 ≤ h < 105	15	15 ÷ 15 = 1.0
105 ≤ h < 100	12	12 ÷ 5 = 2.4



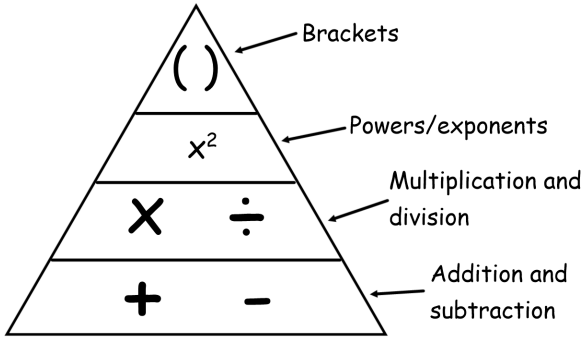
Drawing a Cumulative Frequency Curve

Length	Frequency	Cumulative Frequency
20.5 < h ≤ **24.5**	3	**3**
24.5 < h ≤ **28.5**	7	**10** (= 3 + 7)
28.5 < h ≤ **32.5**	12	**22** (= 3 + 7 + 12)
32.5 < h ≤ **36.5**	6	**28** (= 3 + 7 + 12 + 6)
36.5 < h ≤ **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÷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

+ ⟷ −

× ⟷ ÷

$\square^2$ ⟷ $\sqrt{\square}$

$\square^3$ ⟷ $\sqrt[3]{\square}$

Square Numbers

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

Cube Numbers

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

Written methods

Multiplication (Grid method)

26 x 5

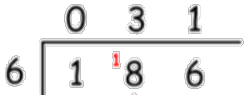
×	20	6
5	100	30

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

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

Division (Bus stop)

186 ÷ 6



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

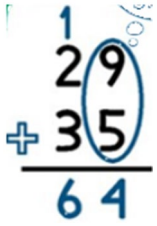
Multiplying Integers

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

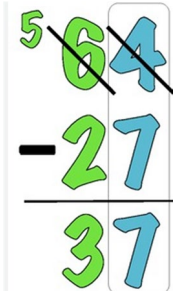
+ × + = + − × − = +

+ × − = − − × + = −

Column Addition



Column Subtraction

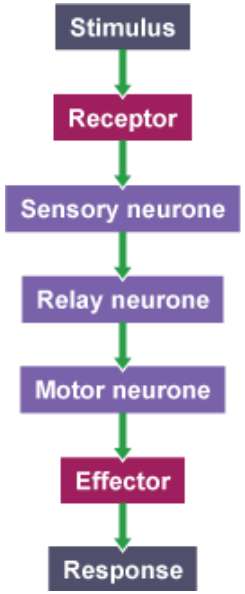


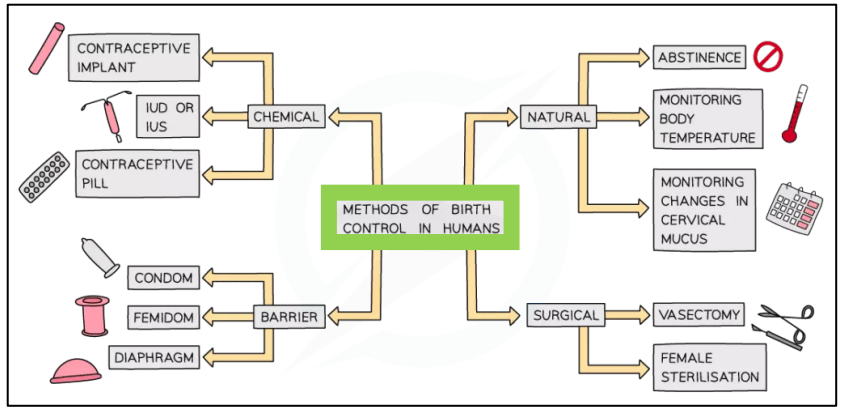
Adding Negative Numbers

+ 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

Subject: Science - Biology Topic: Biology Paper 2

Reflex Action Pathway



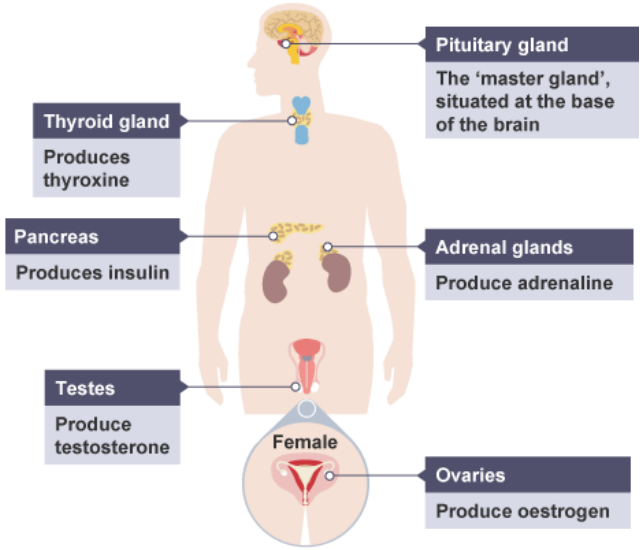


Natural Selection Model Answer

1. A mutation causes variation in the species.
2. The organism better adapted/most suited survives.
3. The organism reproduces and passes on its genes to the next generation.

Subject Terminology	Definition
Hormone	Chemical messenger produced in glands and carried by the blood to specific organs.
Testosterone	The main male sex hormone that controls the male secondary sexual characteristics at puberty and the production of sperm
Oestrogen	Female sex hormone that controls the development of secondary sexual characteristics in girls at puberty and the build-up and maintenance of the uterus lining during the menstrual cycle
Homeostasis	The maintenance of a constant internal environment
Synapse	The gap between two neurones.
Allele	Different versions of the same gene.
Clone	Offspring that is genetically identical to the parent.
Homozygous	two identical alleles for a characteristic
Heterozygous	different alleles for a characteristic

Endocrine System



Maintaining biodiversity

Scientists and concerned members of the public help maintain biodiversity by:

- breeding programs to help preserve **endangered species**, like the panda
- protection and development of new endangered **habitats**, often by making National Parks
- replanting hedgerows because there is higher biodiversity in them than the fields they surround
- reducing deforestation and the release of **greenhouse gases**
- **recycling** rather than dumping waste in **landfill sites**

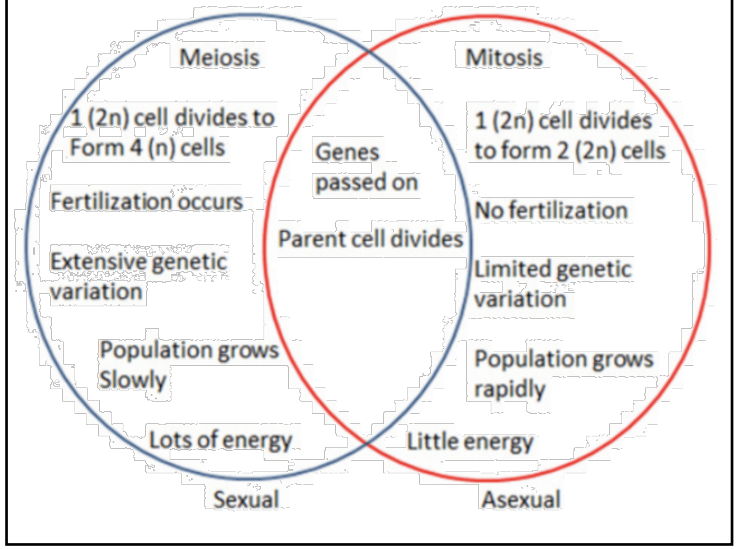
How to construct Punnett squares

f is the cystic fibrosis allele

		mother	
		F	**f**
father	**F**	FF	Ff
	f	Ff	ff

1. Determine the parental genotypes. You can use any letter you like but select one that has a clearly different lower case, for example: Aa, Bb, Dd.
2. Split the alleles for each parent and add them into your Punnett square around the edges.
3. Work out the new possible genetic combinations inside the Punnett square.

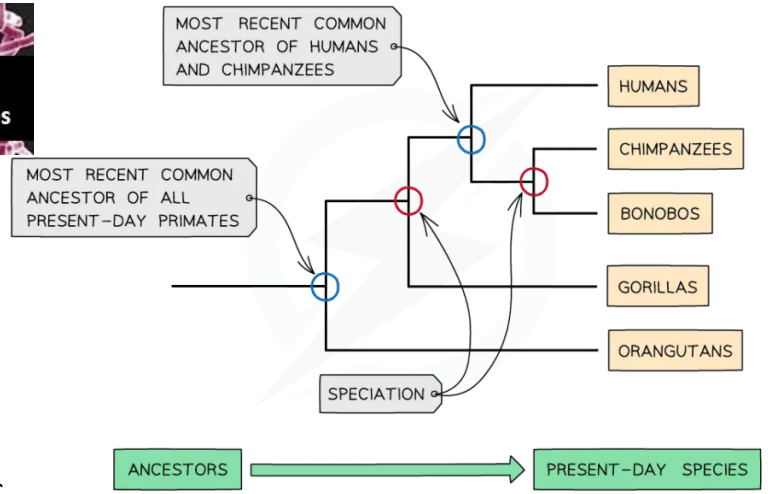
Sexual vs Asexual Reproduction



Subject: Science - Biology Topic: Biology Paper 2

Reasons for Extinction

Evolutionary Trees



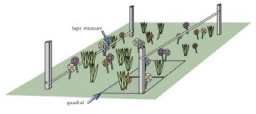
Subject Terminology	Definition
Mutation	A change in the genetic sequence of an organism
Population	The number of individuals with a species living in a certain area at a certain time
Community	A group of interdependent living organisms in an ecosystem
Ecosystem	The interactions between the living and non living aspects of a habitat
Abiotic factors	The non-living factors of an ecosystem such as light, temperature and oxygen levels
Biotic factors	The living factors of an ecosystem such as competition, predation and disease

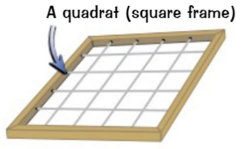
Measuring distribution – Key practical

1. Choose two habitats to be sampled that vary in an abiotic factor (light levels in an open field compared to under a tree).
2. Decide on an appropriate species to be studied (daisies or dandelions)
3. Divide the study habitat 1 into a grid (shown below)
4. Randomly sample habitat 1 using a quadrat (shown below)
5. Repeat multiple times within habitat 1
6. Repeat steps 1-5 in habitat 2
7. Compare your results to decide whether or not the abiotic factor affected the distribution of your chosen species

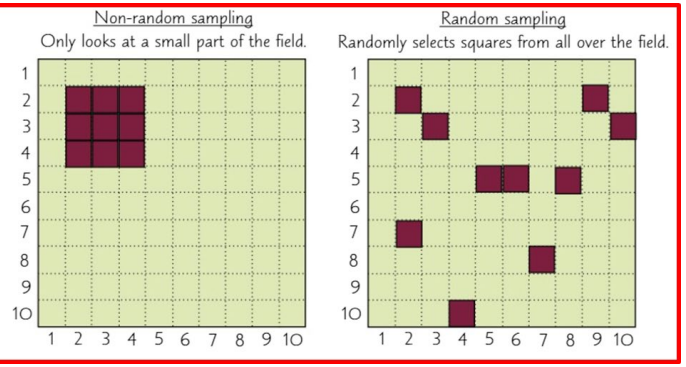
Improving validity

1. Random sampling
2. Same sized quadrat
3. Repeat multiple times

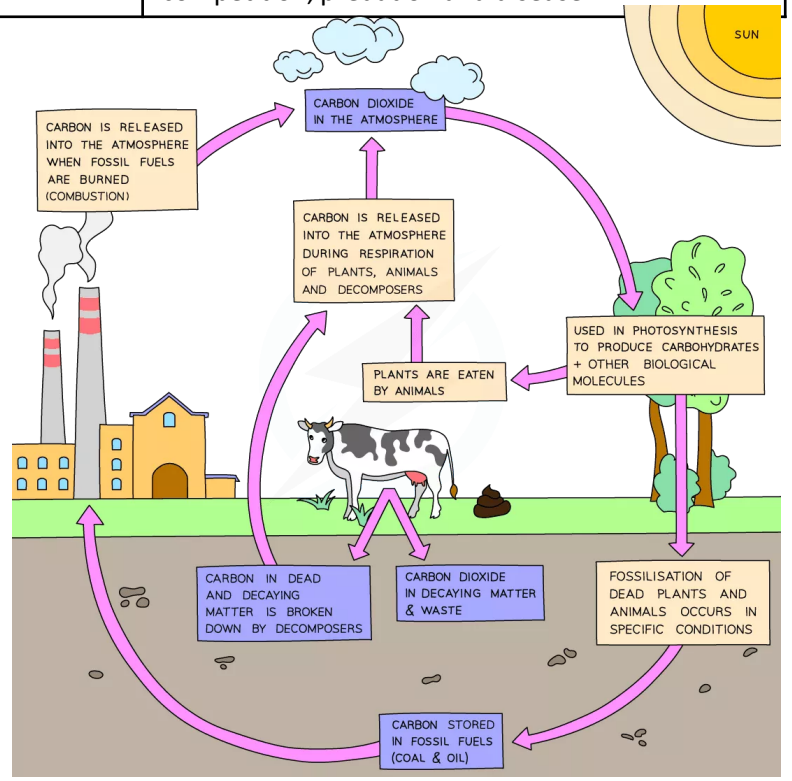




- Divide the field into a grid.
- Label the grid along the bottom and up the side with numbers.
- Use a random number generator (e.g. on a computer or calculator) to select coordinates, e.g. (2,7).
- Place your quadrats at these coordinates to take your samples.

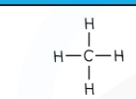
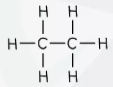
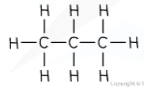
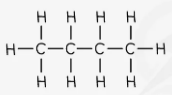


The carbon cycle



Subject: Science - Chemistry Topic: C8 - 12 Paper 2 revision

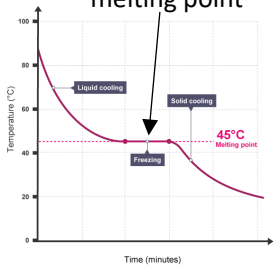
This table shows the first four members of the alkane homologous series

Structural Formula	Name	Molecular Formula
	methane	CH_4
	ethane	C_2H_6
	propane	C_3H_8
	butane	C_4H_{10}

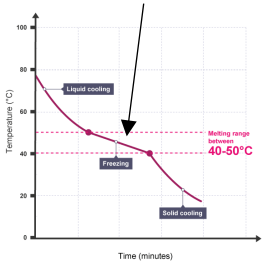
Pure and impure substances

Pure substances have a sharp **melting point** but mixtures **melt** over a range of temperatures.

Sharp melting point



Range of melting points



Subject terminology	Definition
Dynamic equilibrium	If a chemical reaction happens in a container where none of the reactants. or products. can escape, this is a closed system.
Le Chatelier's Principle	is the principle when a stress is applied to a chemical system at equilibrium, the equilibrium will shift to relieve the stress.
Reversible reaction	A reaction that occurs in both directions at the same time shown by $\rightleftharpoons$
Concentration	The concentration of a solution tells us how much of a substance is dissolved in water in g/dm^3. The higher the concentration, the more particles of the substance are present
Rate of reaction	Refers to the speed at which the products are formed from the reactants in a chemical reaction
Activation energy	The minimum amount of energy that colliding particles must have for them to start to react.
Catalyst	A substance that increases the rate of a chemical reaction without being changed by the reaction itself.
Hydrocarbon	A compound containing hydrogen and carbon atoms only
Alkane	Saturated hydrocarbon with the general formula C_nH_{2n+2}
Alkene	Unsaturated hydrocarbon containing at least one C=C and with the general formula C_nH_{2n}
Fractional distillation	the process of separating crude oil into groups of hydrocarbons with similar numbers of carbon atoms using the physical process of evaporation then condensation.
Combustion	A chemical reaction where carbon and hydrogen atoms are oxidised and energy is released.
Formulations	complex mixtures of chemicals which have a specific use
Mobile phase	Phase in chromatography that moves, usually a solvent or mixture of solvents (most commonly water or alcohol).
Stationary phase	Phase in chromatography that does not move, for instance, the paper in chromatography.

Methods for calculating the mean rate of reaction

$$\text{mean rate of reaction} = \frac{\text{quantity of reactant used}}{\text{time taken}}$$

$$\text{mean rate of reaction} = \frac{\text{quantity of product formed}}{\text{time taken}}$$

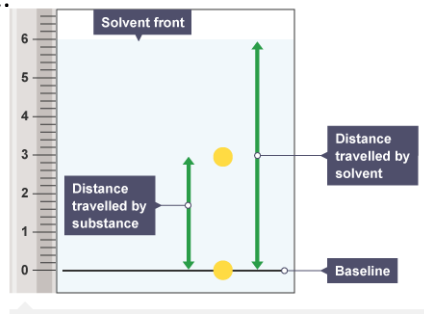
Subject: Science - Chemistry Topic: C8 - 12 Paper 2 revision

Chromatography

Paper **chromatography** is used to separate mixtures of **soluble** substances.

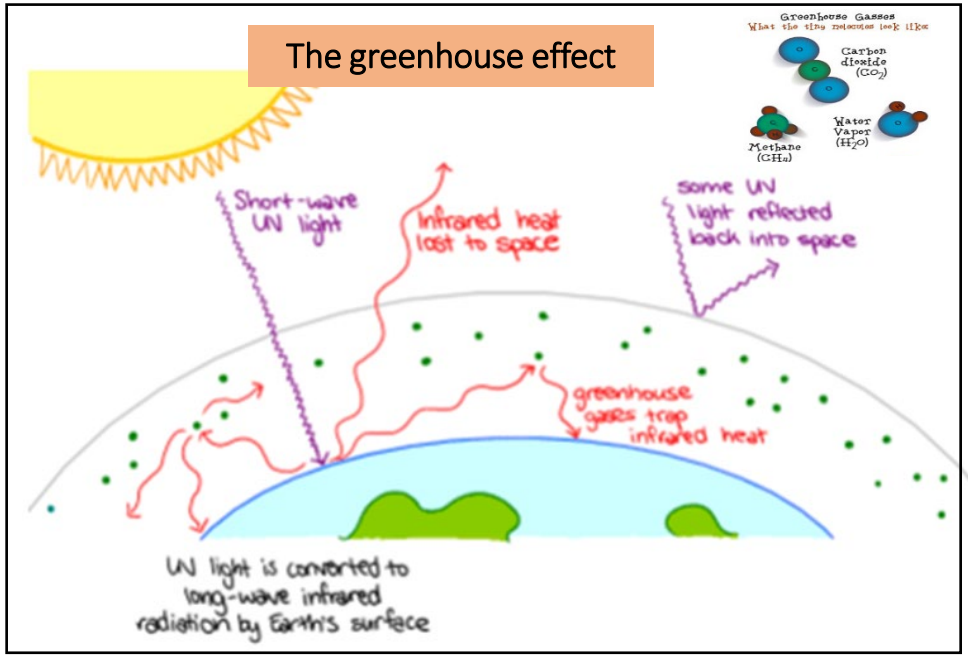
R_f values can be used to identify unknown chemicals if they can be compared to a range of reference substances. The R_f value is always the same for a particular substance.

$$R_f = \frac{\textit{distance travelled by substance}}{\textit{distance travelled by solvent}}$$

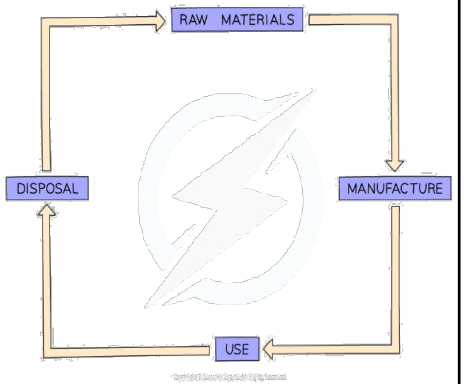


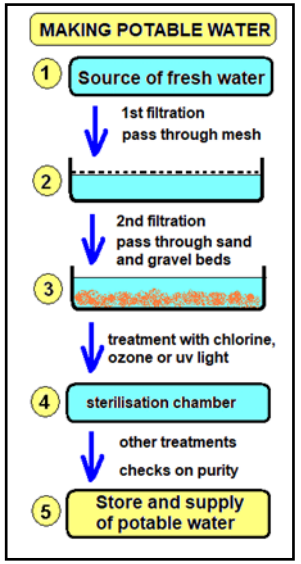
Subject terminology	Definition
Atmosphere	the layers of gases that surround the Earth. The important gases in the atmosphere are nitrogen, oxygen and carbon dioxide
Greenhouse effect	the retention of heat in the atmosphere caused by the build-up of greenhouse gases.
Greenhouses gases	the gases responsible for global warming - carbon dioxide, methane, and water vapour.
Photosynthesis	a chemical process used by plants to make glucose and oxygen from carbon dioxide and water, using light energy
Climate change	the long-term alteration of weather patterns.
Pollutant	a toxic chemical or object that causes damage to the land, air or water.
Carbon footprint	a measure of how much carbon is used through the activities of a person, company or country.
Complete combustion	burning in a plentiful supply of oxygen or air. Complete combustion of a hydrocarbon produces water vapour and carbon dioxide.
Sustainable development	development that meets the needs of the present without compromising the ability of future generations to meet their own needs
Potable water	water that is safe for humans to drink
Desalination	the removal of salt from seawater

The greenhouse effect

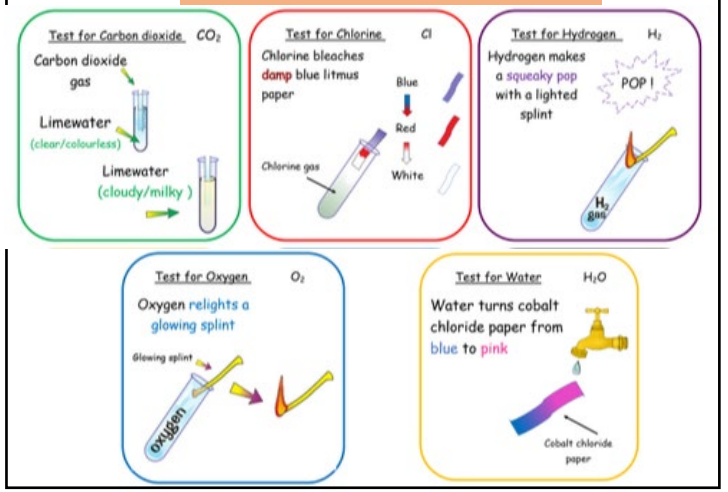


Life cycle assessment





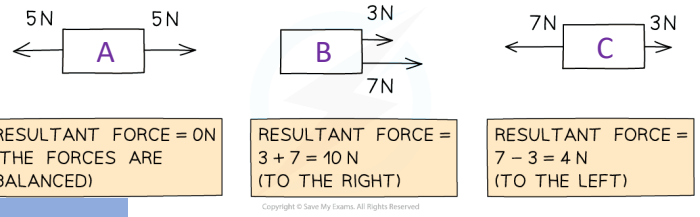
Testing for gases



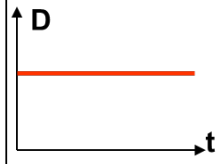
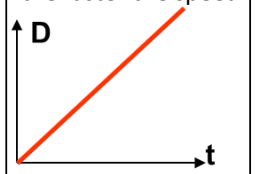
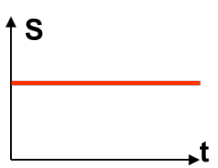
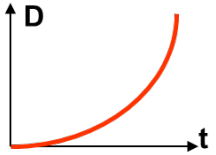
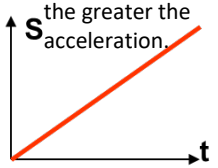
Subject: Science - Physics Topic: Physics Combined Science Paper 2

SCALAR	VECTOR
DISTANCE	DISPLACEMENT
SPEED	VELOCITY
TIME	ACCELERATION
ENERGY	FORCE
MASS	WEIGHT
	MOMENTUM

Calculating resultant forces



Representing Motion on Distance-Time and Velocity-Time Graphs

	Distance-Time	Velocity-Time
Stopped		
Constant Speed	The steeper the line the faster the speed. 	
Constant Acceleration		The steeper the line the greater the acceleration. 
Gradient = Speed	**Gradient = Acceleration** **Area = Distance travelled**	

Typical Speeds

Walking	1.5 m/s
Running	3 m/s
Cycling	6 m/s
Car	13 – 30 m/s
Train	50 m/s
Plane	250 m/s
Sound	330 m/s
Light breeze – gale force winds	3 m/s – 20 m/s

Subject Terminology

Key Word	Definition
Scalar	Quantities that have magnitude only e.g. speed, temperature, mass
Vector	Quantities that have magnitude and direction e.g. velocity, displacement, force
Velocity	Speed in a given direction. A vector. Measured in m/s
Resultant force	A single force which can replace all the forces acting on an object and have the same effect.
Centre of mass	The point in an object where all the mass of an object appears concentrated.
Stopping distance	Thinking distance + stopping distance.
Thinking distance	The distance travelled during a person's reaction time.
Braking distance	The distance taken to stop once the brakes are applied.
Directly proportional	Shown on a graph by a straight line through the origin.
Longitudinal wave	The oscillations are parallel to the direction of energy transfer.
Transverse wave	The oscillations are perpendicular to the direction of energy transfer.

Using Equations

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

$$\text{acceleration} = \frac{\text{change in velocity}}{\text{time taken}}$$

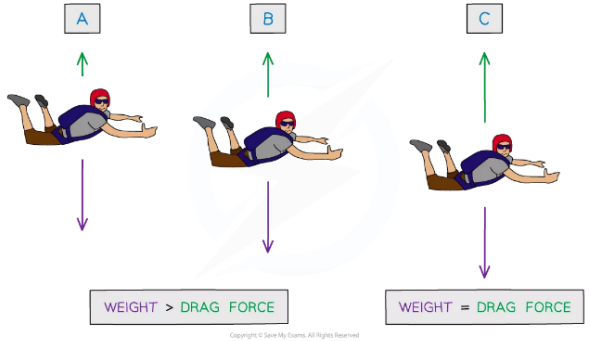
$$v^2 = u^2 + 2as$$

Remember FIFA

Formula: Write down the equation to use
Insert values: Substitute your numbers into the equation
Fine tune: Rearrange the equation and convert units if you need to
Answer: Calculate the answer and write the unit

Subject: Science - Physics Topic: Physics Combined Science Paper 2

A skydiver reaching terminal velocity



THE SKYDIVER IS IN FREEFALL.

THEIR VELOCITY INCREASES DUE TO THE DOWNWARD FORCE OF THEIR WEIGHT.

THE INCREASE IN VELOCITY MEANS AIR RESISTANCE ALSO INCREASES AND ACCELERATION DECREASES.

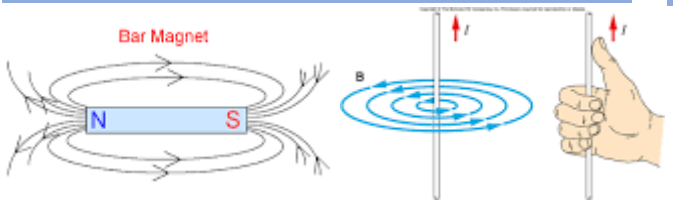
EVENTUALLY THE SKYDIVER REACHES A VELOCITY WHERE THEIR WEIGHT EQUALS THE FORCE OF AIR RESISTANCE.

THEIR ACCELERATION IS 0.

THIS IS THE TERMINAL VELOCITY.

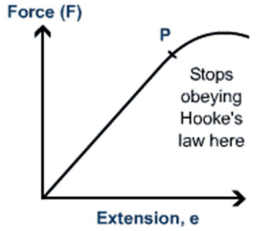
Factors affecting…	
Thinking Distance	**Stopping Distance**
Speed	Speed
Distraction	Worn brakes
Alcohol	Wet/Icy road
Drugs	Mass of car
Tiredness	Worn tyres

Magnetic Field Diagrams



Force Extension Graph

The graph shows a directly proportional relationship until point p

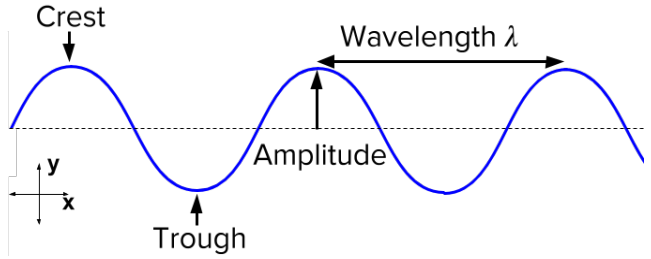


Units to learn	
Newton, N	Force, weight
Kilogram, kg	Mass
m/s^2	Acceleration
m/s	Speed or velocity
m	Distance, wavelength
Hertz, Hz	frequency
Joules, J	Energy or work done
Seconds, s	Time, period
N/m	Spring constant

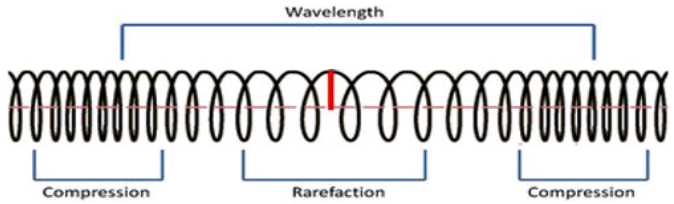
Ways to increase the strength of an electromagnet

1. Using a larger current.
2. Using an iron core.
3. Add more turns to the wire.
4. Place the turns of the wire more closely together.

Transverse wave



Longitudinal Wave



Dangers of EM Waves

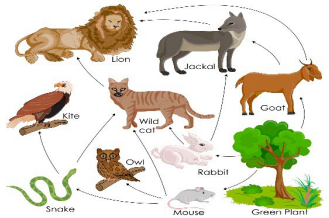
Wave	Danger
Radio	◦ No known danger
Microwave	◦ Possible heat damage to internal organs
Infrared	◦ Skin burns
Visible light	◦ Bright light can cause eye damage
Ultraviolet	◦ Eye damage ◦ Sunburn ◦ Skin cancer You must specify skin cancer to get the mark here
X-rays	◦ Kills cells ◦ Mutations ◦ Cancer
Gamma Rays	◦ Kills cells ◦ Mutations ◦ Cancer

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.

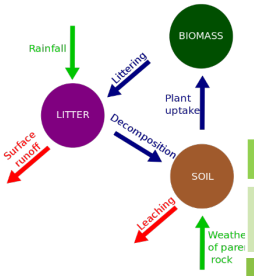
Biome's climate and plants

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 (500-1500m /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.

Nutrient cycle

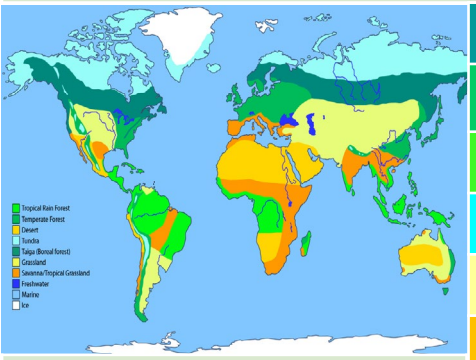
Plants take in **nutrients** to build into new organic matter. Nutrients are taken up when animals eat plants and then returned to the soil when animals die and the body is broken down by **decomposers**.

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.



- Coniferous forest
- Deciduous forest
- Tropical rainforests
- Tundra
- Temperate grasslands
- Tropical grasslands
- Hot deserts.

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

Unit 1b

AQA

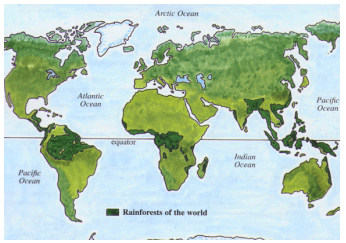
The Living World

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**.

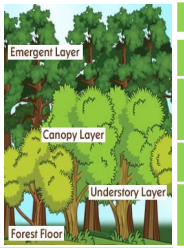
Interdependence in the rainforest

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.



Layers of the Rainforest

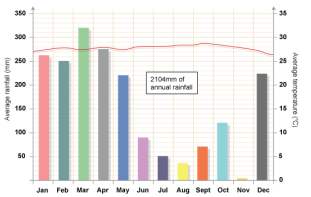
Emergent	Highest layer with trees reaching **50 metres.**
Canopy	80% of life is found here as It receives **most of the sunlight and rainfall.**
U-Canopy	Consists of trees that reach **20 metres high.**
Shrub Layer	Lowest layer with **small trees** that have adapted to living in the **shade.**

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.	- Epping has been managed for centuries. - Currently now used for **recreation** and **conservation**. - Visitors **pick fruit** and berries, helping to **disperse seeds**. - Trees cut down to encourage **new growth for timber.**
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.	

Tropical Rainforests: Case Study Brazil

Brazil is a NEE country in South America.

Adaptations to the rainforest

Spider Monkey	Strong limbs to help it climb
Drip Tips	Allows heavy rain to **run off leaves easily**.
Lianas & Vines	**Climbs** trees to reach sunlight at canopy.

Rainforest inhabitants

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.

Issues related to biodiversity

Why are there high rates of biodiversity?

- **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.**

Main issues with biodiversity decline

- **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.**

Impacts of deforestation

Economic development

+ 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.

Soil erosion

- 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.**

Climate Change

-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.**

What are the causes of deforestation?

Logging

- 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.

Agriculture

- 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**.

Mineral Extraction

- **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.

Tourism

- **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.**

Energy Development

- 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

Road Building

- **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

Sustainability for the Rainforest

Uncontrolled and unchecked exploitation can cause irreversible damage such as loss of biodiversity, soil erosion and climate change.

Possible strategies include:

- **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

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.

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..

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.

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.

Challenges

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.

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.

Permafrost underlies most of Alaska (Figure 8.14). The seasonal melting of the active layer means that offroad travel cannot take place during summer.

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.

Paper 2 AQA Knowledge Organiser: Normans - Historic Environment: Pevensey Castle

Timeline: Key Dates 1066

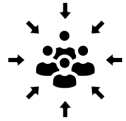
January 5th 1066 - King Edward of England dies.

Late January - William, Duke of Normandy, begins preparations to invade England .

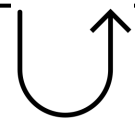
September 8 - Harold disbanded his army on the south coast of England, believing that William will not attempt a crossing of the English Channel that year

September 28 - After setting sail a day earlier, the Norman fleet lands at Pevensey.

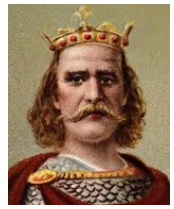
January 6th 1066 - Harold Godwinson is crowned King of England.



August 12 - William's army and fleet are based at St. Valery in Normandy, but are unable to cross the English Channel due to adverse winds



September 25 - King Harold Godwinson arrives in York, after a four-day march from southern England, and then defeats and kills Harald and Tostig at the Battle of Stamford Bridge

Key People: Individuals		
Harold Godwinson	Earl of Wessex and brother in law to Edward. He was very powerful and became king after Edward died. Edward promised him the throne as he died. Defeated and killed at the Battle of Hastings.	
William Duke of Normandy	Believed he should be king as he was promised the throne by Edward. Invaded England in 1066 and defeated Harold Godwinson at the Battle of Hastings.	
Robert of Mortain	He was the half brother of William. He provided ships for William's invasion. After the successful invasion Robert was given land in England including the area which included Pevensey.	
Harald Hardrada	King of Norway who believed he should be king because his ancestor Cnut once was.	

Key Terms/Concepts:		
Heir	The person next in line to the throne.	
Coronation	When someone is crowned the next king or queen.	
Oath	A promise to someone or about something.	
The Papal Banner	A banner/flag given by the Pope to William in support of his invasion.	
Mercenaries	A professional soldier hired to serve in a army.	
Knights	A man who serves his lord as a mounted soldier.	
Motte and Bailey Castle	The first castles built by the Normans out of wood.	
Battle of Stamford Bridge	The battle in the north of England where the Vikings were defeated by Harold Godwinson.	
Harbour	A place on the coast where ships may moor in shelter.	
Tide	The alternate rising and falling of the sea, usually twice in each day.	

Paper 2 AQA Knowledge Organiser: Normans - Historic Environment: Pevensey Castle

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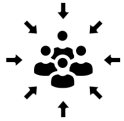

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Pevensey Castle:

Before the Normans:
Pevensey was an existing Roman fort which had been constructed in around 290. Once an impressive structure, the fort had fallen into disrepair.

During the invasion:
When William landed at Pevensey he started to construct a motte and bailey castle to secure his position. This type of castle was quick and easy to build. It is believe he brought a pre built wooden castle structure with him from Normandy.

After the Battle of Hastings:
The castle was the quickest route to Normandy. The castle was given to William's half brother Robert of Mortain. Robert would have started to construct the castle out of stone.

Why did William want to invade England?

Causes: Edward the Confessor had died without an heir. This resulted in a crisis where four men wanted the throne. This included Harold Godwinson and William Duke of Normandy. Harold Godwinson was already a powerful English earl in Wessex and William was a powerful landholding duke in Normandy. William had been promised the throne by Edward and Harold swore and oath to uphold this promise. Harold however was told he could be king on Edward's deathbed.

Events: Harold Godwinson was crowned king on the 6th January 1066. This led to William starting his preparations for an invasion of England to take what he believed was his.

Factor - How William gathers support for the invasion

What support did William gather? William needed to ensure the support to successfully complete his invasion.

1. The Pope - the Pope gave William a Papal Banner in a show of support for William's invasion.

2. The Norman Nobility - William needed the support of the Norman nobility and promised them land and wealth in return for their support and resources.

3. Other European Powers - William had the support of the French King, he also gained support from other powers like Denmark and the Holy Roman Empire.

How did he prepare? William gathered around 6-7000 men from the whole of France. He also gathered around 700 ships to transport his men, supplies and horses. Many of the men were mercenaries attracted to the potential wealth.

Factor - Harold Godwinson's bad luck and mistakes

What threats did Harold face in the north?
Early 1066- Harold Godwinson's younger brother had been removed as the Earl of Northumbria. He was replaced by Morcar. Tostig fled to Scotland.

What threats did Harold face in the south?
Summer 1066, Harold stationed his soldiers on the south coast waiting for William's invasion. By the 8th Sept when it didn't come and supplies ran out Harold was forced to disband his troops.

Further threats in the North: In late Sept 1066, the Viking invaded in the north. Harold Marched up north to defeat the Vikings at the Battle of Stamford Bridge. Harold then got news that William had landed at Pevensey in the south.

Factor - How the weather helped William's invasion

What issues did William face crossing the Channel?
The wind was blowing in the wrong direction which was dangerous and could result in ships smashing against the shore. The tide changed every 6 hours so they needed to leave when the tide was high. They wanted to sail at night and arrive in the daylight to unload their supplies.

How did the wind make William's invasion a success?
The wind direction preventing William crossing the channel sooner. By the time the wind had changed Harold has disbanded his troops. William was forced to move his troops closer to England when the wind halted his first channel crossing. When he finally crossed and unloaded his barons and knights unloaded the ships.

Factor - Why Pevensey was the ideal place to land the invasion force

Pevensey stood on a low peninsula which jutted out into the sea and was joined to the mainland by a narrow neck of dry land. Pevensey had a shallow beach and a natural harbour. This allowed the Normans to unload the ships which brought their supplies and horses across the Channel quickly and easily. Pevensey provided a safe and secure route to Normandy for future supplies and, had it been necessary in the months after the battle of Hastings, for retreat. William's choice of Pevensey as the place to land was also well-chosen because it was a defensible site with an existing fortification. The Romans had built a fort there in about CE 290.

Year 11 Knowledge Organiser, HT4: Describing your home/local area, Social issues.

Time marker	Noun	Verb	Nouns	Connective	Verb	Adjective
Quand j'étais plus jeune When I was younger Quand j'étais petit(e) When I was small Dans le passé In the past Quand j'avais ____ ans, When I was ……. years old	ma maison - my house mon appartement - my flat ma maison jumelée My semi-detached house chez moi - my home ma ville - my town / city mon village – my village mon quartier - my area ma région My region	avait - used to have consistait à - used to consist of il y avait - There used to be	Un tapis- a carpet Un parking - a car park Un ascenseur - a lift Une salle de bain - a bathroom Le chauffage central - central heating Une pelouse - a lawn Les rideaux - curtains Une chambre - a bedroom Une douche - a shower Un étagère - a (book)shelf Las estanterías - bookshelf Un frigo – fridge Un lac - a lake Un lavabo - a sink Un lave-vaisselle - a dishwasher Une table - a table Les meubles - furniture Une machine à laver - washing machine Les murs - walls Le couloir - corridor La porte - door Le salon - living room Le micro-ondes - microwave La chaise - chair Le fauteuil - armchair Une fenêtre - window Les stores - blinds Le miroir - Mirror Le four – oven	Mais - but Cependant - however Alors - so Pourtant - however Donc - therefore par conséquent - therefore Puis - then Peut-être - perhaps aussi - also En outre - In addition C'est à dire - in other words Bien sûr – of course D'une part - On the one hand D'autre part - On the other hand sans doute - Without a doubt d'un côté - On the one hand D'autre côté - on the other hand	c'était il/elle n'avait pas	bruyant - noisy petit - small dégoûtant - disgusting ancien - old bon marché - cheap joli - pretty distinct - distinct charmant - lovely génial - great Cool - cool beau/belle - nice impressionnant - impressive merveilleux - great nouveau/nouvelle - new précieux - precious vieux/vieille - old Un tapis– carpet Une cave – basement Un placard d'aération– airing cupboard Les appareils ménagers – domestic appliances

Year 11 Knowledge Organiser, HT4: Describing your home/local area, Social issues.

Verb	Time expression	Infinitive		Preposition : Pour + Verb constructions
On peut - One can On ne peut pas – One cannot On pourrait – One could On doit - One must On ne doit pas – One mustn't On devrait - One should On ne devrait pas – One shouldn't On a besoin de – One needs to On aurait besoin de – One would need to	toujours - always souvent - often quelquefois - sometimes maintenant - now en même temps - at the same time parfois - sometimes chaque jour - each day immédiatement- Immediately tout à coup - suddenly pendant la journée - during the day de temps en temps – from time to time rarement – rarely ne… jamais – never	se coucher – to go to bed être- to be se réveiller - to wake up s'endormir - to fall asleep se lever - to get up prendre des drogues - to take drugs se soûler - to get drunk s'entraîner- to train faire - to do endommager - to damage travailler à – to work in fumer - to smoke manger – to eat suivre – to follow	tôt - early tard - late actif - active un bénévole- volunteer L'exercice – excerise le sport - sport le foie - liver le cerveau- brain les oreilles - ears les poumons - lungs le cœur - heart une organisation caritative - charity un magasin de charité - charity shop une maison de retraite- retirement home les cigarettes - cigarettes le cannabis - cannabis les drogues dures - hard drugs les drogues douces – soft drugs la nourriture saine - healthy food la nourriture malsaine - unhealthy le fastfood - junkfood une alimentation équilibrée - a balanced diet	rester en forme - to keep fit rester en bonne santé - to not fall ill éviter la fatigue - to avoid tiredness prévenir les crises cardiaques - to stop heart attacks. éviter les maladies pulmonaires - to avoid lung diseases améliorer le corps - To improve your body se sentir bien - to feel well enlever le stress - to relieve stress prolonger la vie - to prolong your life respirer bien - to breathe well se sentir vivant – to feel alive

Year 11 | Subject: Drama | Topic: Performing Arts in Practice

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 *genre* of a play refers to the type of story being told and is decided by the *playwright*. The *style* 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.

TIME SIGNATURE / METRE

(How the pulse is grouped into bars)

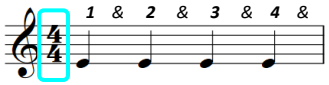
Common Time
4/4 is also known as common time. Instead of 4/4 you can write: 𝄴

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

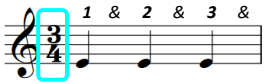
Time Signatures

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

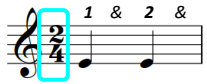
Simple Time Signatures **Each beat can be divided into two equal halves*



4 crotchet beats per bar

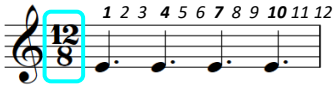


3 crotchet beats per bar

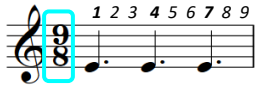


2 crotchet beats per bar

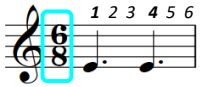
Compound Time Signatures **Each beat is dotted and can't be divided into two equal halves*



4 dotted crotchet beats per bar (12 quavers)



3 dotted crotchet beats per bar (9 quavers)



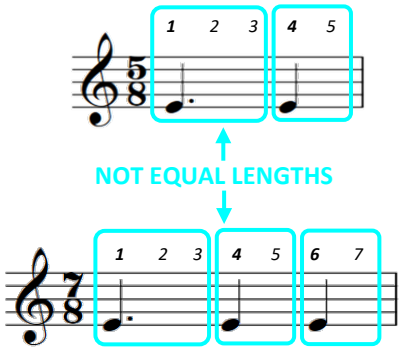
2 dotted crotchet beats per bar (6 quavers)

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

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

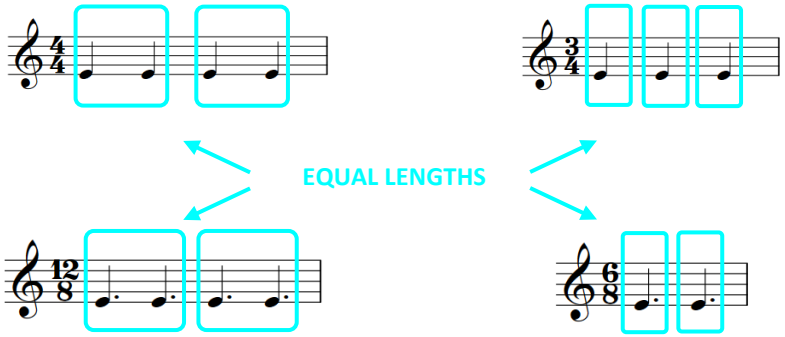
Irregular Time Signatures

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



Regular Time Signatures

Time signatures that <u>can</u> be divided into equal groups of 2 or 3.

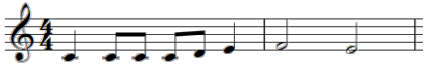


Writing Your Own Music

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.

TEXTURE

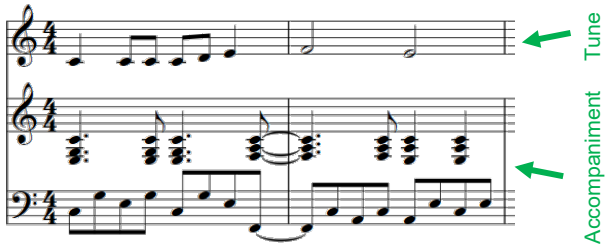
Monophonic
Music with only one part (one note at a time).



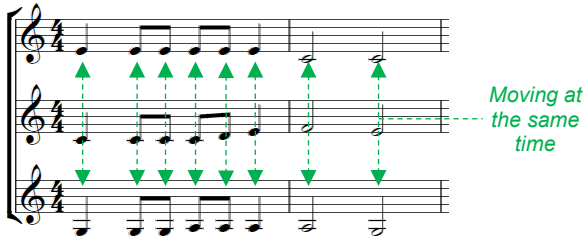
*You can have as many players or singers as you want on the same part so long as it is the only part. No chords!

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.

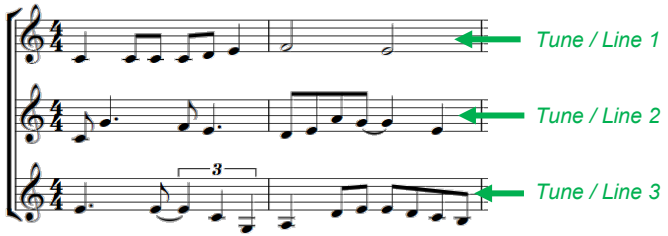


Homophonic
All parts move in chords at the same time.



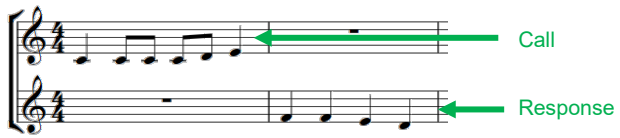
*Homo-phonic = same-sound… they have the same rhythm

Polyphonic
Several (2 or more) independent lines of music.

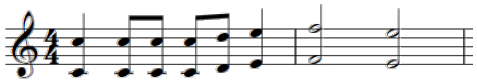


*Poly-phonic = many-sounds… several (two or more) different tunes.

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

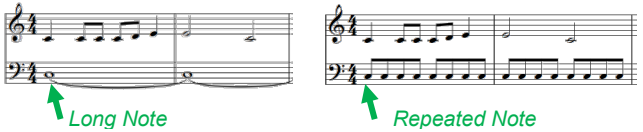


Octaves
When parts move together, an octave apart.

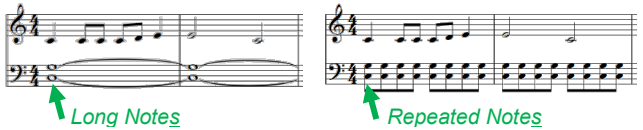


*Same note name but different pitch.

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

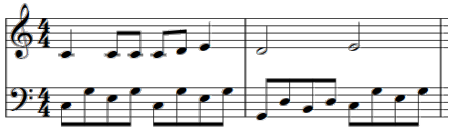
Melody – The tune.

Accompaniment – The parts supporting the tune.

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

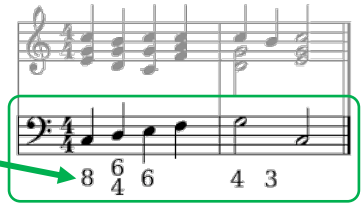
Bass Line – The lowest sounding part.

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.



*Harpsichord, bass viol, organ, lute…

Half-Term 3 - Brickwork

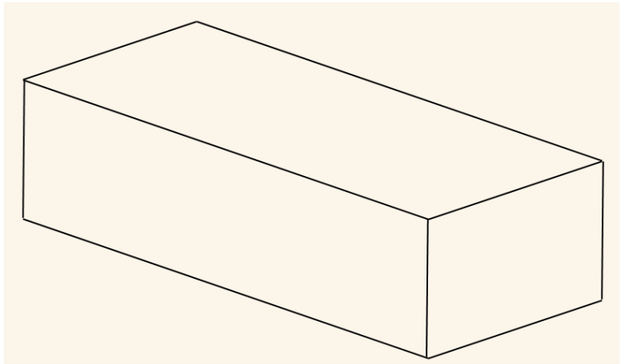
Subject - Construction

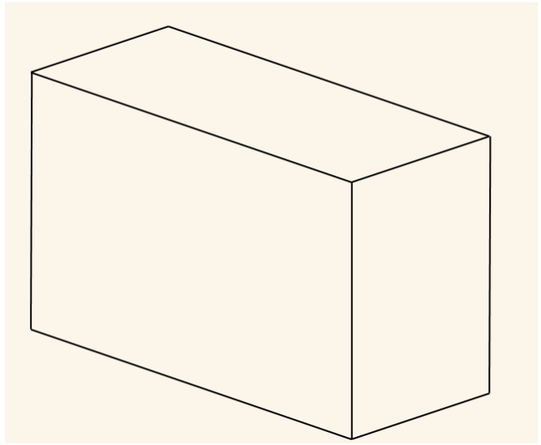
Brick dimensions

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

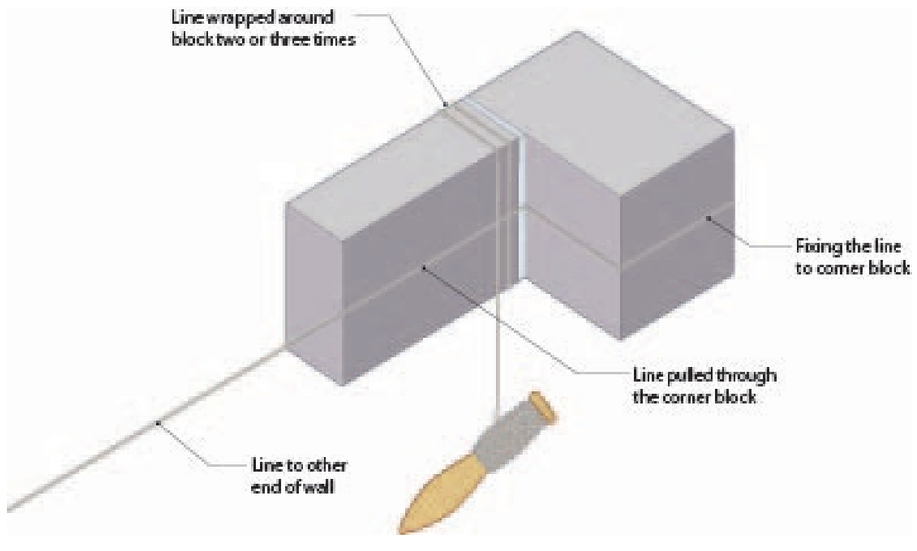
Block dimensions

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

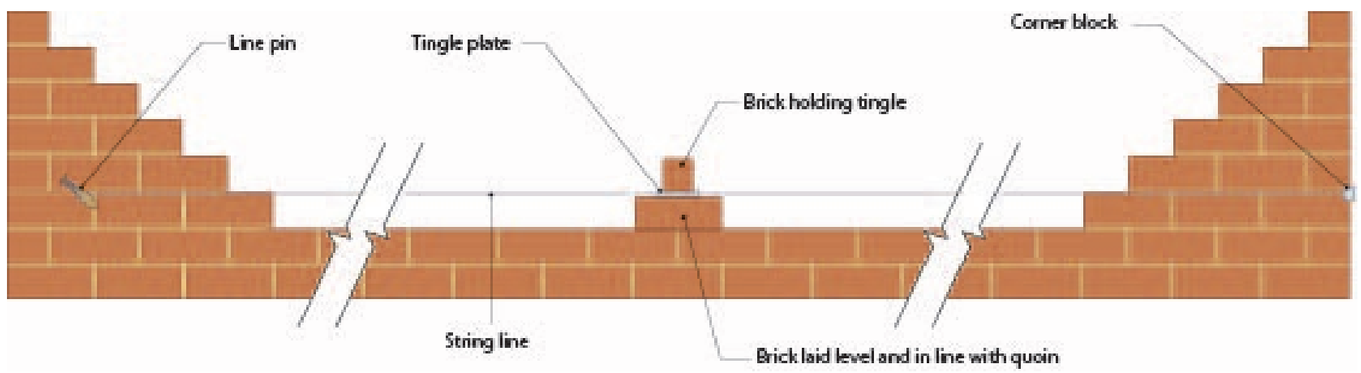




There are different methods of holding in place a string line so you can build to it.



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



HT3 onwards Y11 CORE RE - ETHICS

UK LAWS

ABORTION:

In 2025, MPs have backed a change to the law that could see **abortion decriminalised** in England and Wales for women in relation to their own pregnancies, this was backed by the BMA (British Medical Association). A vote in Parliament in June saw lawmakers support an amendment to the Crime and Policing Bill, which could see **an end to the threat of criminal investigation and prosecution of women who choose to terminate their pregnancy**. **Abortions in the UK require a doctor's approval and have a 24-week limit**, except in specific circumstances. Any Doctors who perform abortions outside of this framework will experience **legal penalties**.

EUTHANASIA:

Euthanasia is currently **illegal** in the UK. There are debates and discussions in parliament, one being titled Terminally ill adults (end of life) Bill. This is a bill to allow adults who are terminally ill, subject to safeguards and protections, to request and be **provided with assistance to end their own life;** and for connected purposes. Some suggestions put forward in the bill are: the person must have the **capacity** to make a decision themselves to end their own life, **without being coerced** or forced by others, is **aged 18 or over**, is a resident in England and Wales for at least 12 months and is **a registered patient** with medical practices in England and Wales.

THE DEATH PENALTY:

Capital punishment for all civilian and military offences was **fully abolished in the UK in 1998**. The **death penalty remains fully abolished in the UK** as of 2025 and cannot be reintroduced without the UK rejecting the European Convention on Human Rights (ECHR). **The maximum sentence for murder and the most serious crimes is a whole-life order,** meaning imprisonment for the rest of an offender's life.

GENERAL CHRISTIAN ATTITUDES

ABORTION:

Christians generally oppose abortion due to it going against multiple Christian teachings and principles, such as the **sanctity of life** and 'do not kill'. Catholics believe that **life begins at conception**, so thus abortion is always wrong as it always takes a potential life! Some Catholics, and most other Christians, generally agree that abortion is acceptable in extreme circumstances, such as **if the woman's life is at risk** or if the child will have a poor **quality of life.**

EUTHANASIA:

Similar to an abortion, most Christians believe that Euthanasia goes against the **sanctity of life**, in that only God can take or restore life, so we should not **tamper with God's plan.** Some Christians argue that someone should have the choice to end their own life if they have a bad **quality of life** which impacts physical and mental health, and if they have not been **coerced**.

THE DEATH PENALTY:

The death penalty goes against **the sanctity of life** as well as Christian teachings of 'do not kill'. It is **inhumane**, and only upholds retribution (revenge) which most Christians try to avoid. **Forgiveness and reformation** are often preferred Christian attitudes to criminals, as Jesus taught **forgiveness** ('forgive 77 times') and helped people turn away **from a life of sin.** A lot of Christians believe **we should follow Jesus' example** and thus the **death penalty does not allow for reformation or forgiveness to effectively take place**.

TECHNICAL VOCABULARY	
Ethics	A system of moral principles (beliefs) concerning what is good or bad, right or wrong
Morals	Standards of behaviour; principles of right and wrong
Abortion	The deliberate termination of a human pregnancy, most often performed during the first 28 weeks of pregnancy
Euthanasia	The painless killing of a person or animal suffering from an incurable and painful disease or in an irreversible coma
The death penalty	Punishment by execution. Ending someone's life as punishment for a crime committed (often first-degree murder)
Vulnerable	Being exposed to the possibility of being attacked or harmed, either physically or emotionally
Sanctity of life	The idea that life is holy and belongs to God. Only God can take and restore life
Animal rights	The rights of animals to live free from human exploitation and abuse
Justice	The quality of being fair and reasonable.
Terminal illness	An incurable and life-limiting medical condition that will likely lead to a person's death
Social experiments	A research method that observes human behaviour in a specific, controlled situation to study reactions and the effects of social contexts
Implications	A likely consequence of something.
Dilemma	A situation in which a difficult choice must be made between two or more alternatives, especially ones that are equally undesirable.
Quality of life	The standard of health, comfort, and happiness experienced by an individual or group.
Pro-life	Believing that all human life, from conception to natural death, is morally equal or is equal in dignity
Pro-choice	Supporting the legal right of women to choose whether to have an abortion
Contraception	The deliberate use of artificial methods or other techniques to prevent pregnancy because of sexual intercourse
Dignity	A sense of pride in yourself; self-respect

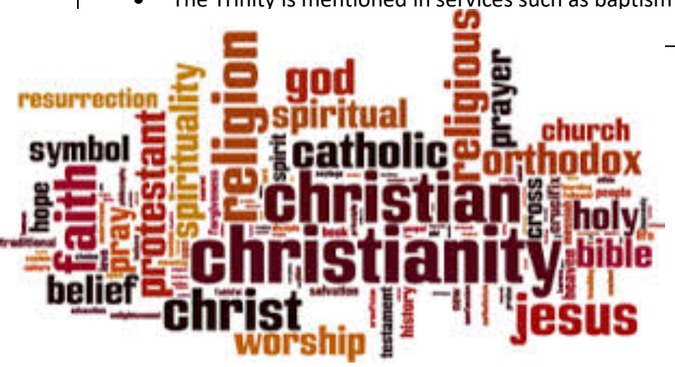
Year 10 Christian Beliefs

God as omnipotent

- This means all-powerful, not that he can do anything – even against his nature.
- This can be seen in the creation and wonders of the universe.
- Miracles performed by God and Jesus (Jesus is God in human form)
- What it means for Christians is they believe nothing can overcome God's powers.

The Oneness of God and the Trinity

- Christianity is a monotheistic faith – they believe in one God
- But God has been revealed as Father (creator), Son (Jesus the saviour) and Holy Spirit (source of strength and guidance)
- When Christians speak of the three persons of the trinity they do not mean three people just as being known in three ways.
- They support this belief because they say God's nature is beyond our understanding and this is an attempt to make sense of what the Bible says.
- The Trinity is mentioned in services such as baptism and as part of blessings.



God

The Incarnation

- The word literally means 'embodiment' and refers to the idea that God took on human form in Jesus (John 1:14)
- Christians believe that Jesus was fully God (the Word) and fully human (born of Mary)
- This is hard to explain but describes the disciples experience of Jesus
- Throughout the New Testament it states that Jesus is the Son of God, Mary conceived from the Holy Spirit and was a virgin.
- The virgin birth is seen by some as literal, emphasising the divine nature of Jesus, other metaphorical highlighting his unique human nature.
- Jesus speaks of not knowing all things – like the time of the end of the world – so people question how he is fully divine.
- Early Christians believed that Jesus, as God, fully took on human form in order to redeem humanity
- Christians are supposed to live their lives in the same submission to God the Father showing selfless love – even to the point of death.

SUBJECT TERMINOLOGY	
Catholic	a branch of Christianity, based in Rome and led by the Pope
Orthodox	a branch of Christianity mainly, but not entirely, practiced in Eastern Europe
Protestant	a branch of Christianity that became distinct from the Catholic Church at the time of the Reformation
Denomination	a distinct group within the Christian faith, with its own organisation and traditions
Monotheistic	a religion that believes there is only one God
Holy	separate and set apart for a special purpose by God
Omnipotent	almighty, having unlimited power; a quality of God
Benevolent	all-loving, all-good; a quality of God
Justice	bringing about what is right and fair, or making up for a wrong that has been committed.
Trinity	the belief in God as one in three forms, Father, Son and Holy Spirit
Son of God	a title used for Jesus, the second person of the Trinity; denotes a special relationship between Jesus and God the Father
Creation	the act by which God brought the universe into being
The Word	a term used at the beginning of John's Gospel to refer to God the Son.
Incarnation	God becoming a human being, being born as Jesus
Holy Spirit	The third member of the Trinity

<u>Beliefs about Creation</u>

- Christians believe that God created the world
- The Nicene Creed states that Christians believe in God the Father, creator…
- Genesis 1:1 also states 'in the beginning God created the heavens and the earth
- John's Gospel also states that Jesus (the Word) was also there and was part of this creation.
- Genesis 1 also speaks of the Spirit of God moving over the waters changing chaos into order
- THE TRINITY IS SEEN AS ACTING IN CREATION

The Crucifixion

What happened:

Being fully God but also fully human, Jesus suffered pain. A centurion accepted that Jesus was the Son of God.

The guards made sure Jesus was dead. His body was put in a cave before the Sabbath day.

Why is it important?

- It shows that **Christians will be forgiven for their sins** if they are truly sorry.
- **God understands human suffering** because of the suffering of his son, Jesus.
- **Suffering is a part of human** life, just as it was part of Jesus' life.
- It shows that Jesus was **fully God and fully man.**
- It teaches Christians that forgiveness is possible- Criminals on the cross.
- Teaches Christians that God loves them

Christ as Saviour

- John 3:16 says that God loved the world so much he gave his son as an atonement
- Jesus bore humanity's sin on the cross
- God took the initiative when humanity couldn't
- It inspires others to take the initiative in reconciliation in the world today and to dedicate their lives to the way of God

The Resurrection

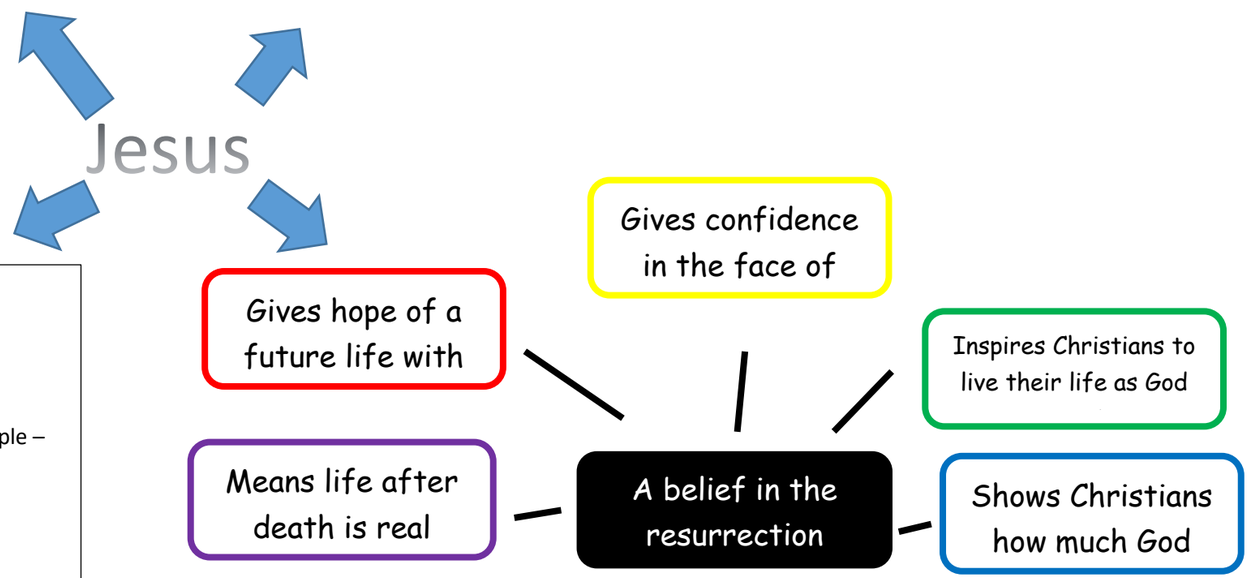
- The New Testament says that a man named Joseph was given permission to bury Jesus in a rock tomb
- The Sabbath was about to start so the women were not able to prepare the body properly
- A huge bolder was put in front of the tomb
- Early Sunday the women went to attend to the body but the stone had been moved
- The Gospels vary about what happened next but the body was missing
- According to Mark a man in white told the women to go back to the disciples and wait for him there.
- All reports stress the physical nature of his visits to show it wasn't a ghost
- This idea is important because it shows that God has overcome the power of death.

The Ascension

- After meeting with his disciples and asking them to do his work, Jesus left them for the last time.
- This was 40 days after the resurrection.
- When Jesus ascended into Heaven the Holy Spirit came to the disciples.
- This was known as Pentecost. The Holy Spirit gave the disciples the gifts to spread the word for example – Speaking in tongues.

This is significant because…

- Shows that Jesus is with God in heaven.
- Prepare for God to spend the Holy spirit to provide comport and guidance.



Year 11 HT4

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

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

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

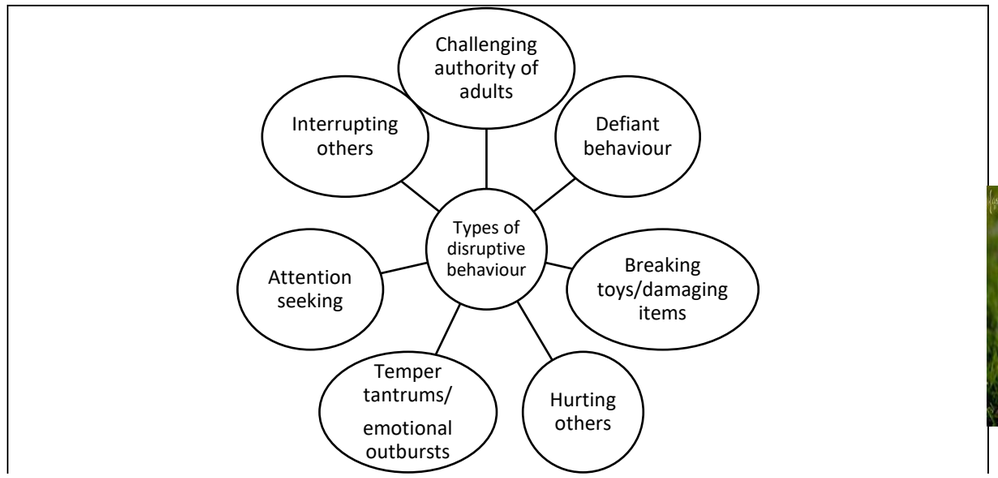
Communication and Language needs that may impact on play, learning and development	
What are the benefits of children learning English as an additional language?	Cognitive skills are developed if using more than 1 language; problem-solving and creativity skills; memory improves; can socialise with different 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 behviour in social situations and public places; difficulties concentrating or making friends; can be withdrawn and have low self-esteem.
Why do some children have difficulty forming bonds with adults?	Premature birth; Postnatal depression; a child's health or a parent/parents health and abuse. If a child has difficulty forming bonds with adults this impacts on play, learning and development.
What are the impacts on a child if they don't play?	Child will not know what they like or are interested in; find it hard to control emotions; unable to make friends or cooperate; won't learn how to use resources and equipment; won't progress in development; won't be able to adapt; can lead to anxiety and depression.
Why do some children have difficulties forming friendships?	May not have the skills – can't share or take turns; may not have formed bonds with adults making it difficult to trust and understand the needs of others; delayed language skills; English as an additional language; not tolerant of others; domineering; argumentative.

Year 11 HT4

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



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

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

Possible impact of not meeting expected milestones: -

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

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

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

Possible impact of individual needs on cognitive development: -

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

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

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

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

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

Year 11 HT4

Sociology: Research methods.

Types of data
Quantitative – Statistical data that is in numbers and can be presented in tables and graphs. **Qualitative** – Data that is in words and has lots of detail, helping to give context. **Primary** – research information that sociologists have collected themselves – the researcher has more control over the data collected and can tailor it to exactly what they want but can be expensive and time consuming. **Secondary** – information that has been collected by someone else for another purpose – cheaper/easier as it's already available, but might not be exactly what is wanted and is often out of date. **Official statistics** – from police, courts, hospitals or UK Census. **Unofficial** – from charities or private companies (can be biased to suit purpose).

TECHNICAL VOCABULARY	
Sampling	Choosing a small group of people from a larger population to take part in research.
Content analysis	A research method where texts, images, videos, or media are analysed to find patterns or themes.
Questionnaires	A set of written questions used to collect information from lots of people.
Interviews	A research method where a researcher asks questions face-to-face (or online/phone) to gain detailed answers.
Observation	Watching and recording people's behaviour to see how they act in real situations.
Hypothesis	A testable prediction.
Mixed methods	Research that uses quantitative and qualitative methods together.
Quantitative	Research that uses numbers, statistics and data.
Qualitative	Research that uses opinions, feelings and experiences.
Pilot studies	Small trials carried out before the main research.

Pilot Studies
A pre-test for the research so that you can practice the methods, to secure funding for research and to work out practical issues (time/cost). Less common with qualitative research, but essential to quantitative research to check questions. Potential issues with questionnaires: • Replies given were not what the researcher was hoping for. • Respondents didn't feel comfortable answering sensitive questions straight away. • Questions may be misunderstood (unclear/ambiguous), or include unfamiliar terminology.

Sampling
Target population: Group of people researcher wants to study. **Sample:** Small section of the population selected for research purposes. **Sampling frame:** List of potential participants e.g electoral role. **Random sample:** Where everyone in the sample has the same chance of being studied. **Systematic sample:** follows a specific rule to get an unbiased sample i.e. every 10th person on a register. **Stratified sample:** divides sample frame into smaller groups – age, social class and then draws at random from these groups to increase representativeness. **Opportunistic sample:** using the people who are available at the time. **Quota sample:** including a certain number of people from certain groups to increase representativeness e.g 25% of sample must be under 30. **Snowballing sample:** used for smaller groups who are difficult to access – the research uses one contact to introduce them to a second and so on. **Unrepresentative sample:** only uses a specific group of people so can not be generalised to others outside of the study.

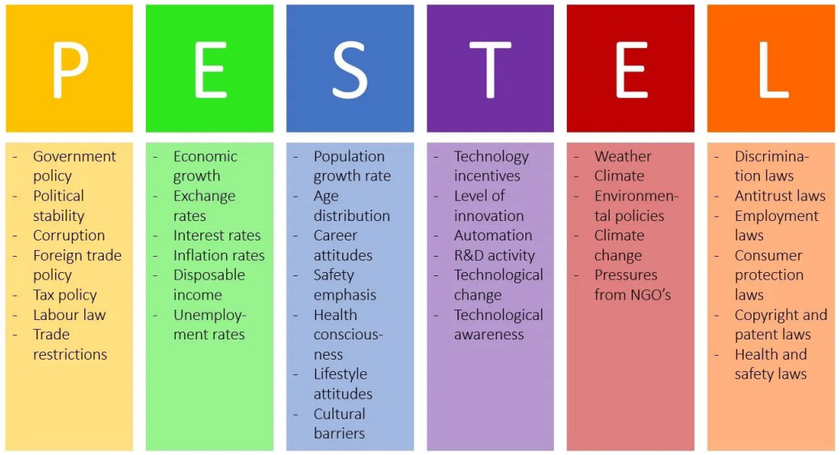
Need to consider
Reliability: Can the research be repeated with different participants and gain a similar result? *Questionnaires tend to have highest reliability. **Validity:** how accurate is the data that has been collected – how deep an insight does it provide? *Participant observation unstructured interview tends to have the highest validity. **Representativeness:** Does the sample include a wide range of characteristics that are seen in the general population? If not, the results will be too generalised and therefore won't answer hypothesis properly. **Ethics:** the rules to follow so that a piece of research or the way it is conducted is morally right e.g. anonymity, confidentiality, informed content, protection from harm.

Content Analysis
Content Analysis – quantitative method used to analyse mass media, i.e. tally chart to measure the number and type of gender roles on TV adverts. Useful for measuring key themes show in the media e.g. media bias of reporting global events.

Questionnaires	Interviews	Observation
Series of questions used to find out about an issue- most widely used research method. **Closed questions**: one word answers or categories to tick. **Open questions**: So respondents can develop their ideas. **Advantages:** Generate large amounts of data; quick and cheap; respondents usually complete them independently no need for a team of interviewers. **Disadvantages:** Questions can be interpreted in different ways or lack detail; can have a low response rate (particularly postage surveys).	Conversation between researcher and respondent. **Structured interviews:** Prepared list of questions, which are standardised so all interviews are the same. **Unstructured interviews:** no preplanned questions so can gain detail (high validity)- more difficult to repeat so less reliable. **Semi-structured interviews:** Some pre-planned questions but also flexibility to adapt questions if needing to probe further. **Trust rapport:** Build up of trust between researcher and respondent – important when talking to vulnerable people. **BUT** time consuming and costly, interviewers need training.	Where the researcher observes the behaviour of a group. **Overt:** Participants are aware that they are being observed. **Covert:** Participants are unaware they are being observed- most sociologists prefer this as observations are likely to be more truthful. **Participant:** Researcher interacts with the group being observed – but can become too involved/influence the group. **Non-Participant:** Researcher observes from a distance BUT, studies are difficult to repeat, sample size is usually too small to be representative.

Half Term 4: February to April

Subject **Year 11 Enterprise**



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

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.

Y11 BTEC Sport HT2

Methods of Training

Aerobic Endurance Training	Continuous, Fartlek, Interval, Circuit
Muscular Strength Training	Weight Training, Resistance Machines, Circuit
Muscular Endurance Training	Weight Training, Resistance Machines, Circuit
Speed Training	Acceleration Sprints, Interval, Resistance Running
Flexibility Training	Static Stretching, Proprioceptive Neuromuscular Facilitation (PNF)
Agility Training	SAQ Training
Power Training	Plyometric Training

Long Term Effects of Aerobic Endurance Training

Cardiac Hypertophy

Your heart gets bigger and stronger

Decreased Resting Heart Rate

As your heart is stronger, it pumps more blood with each pump, meaning your heart does not need to beat as quickly

Increased Strength of Respiratory Muscles

Your diaphragm and intercostal muscles get stronger which increases the efficiency of your breathing

Increased Capillarisation Around Alveoli

You create new capillaries around the alveoli which makes gaseous exchange more efficient

Long Term Effects of Muscular Endurance Training

Increased Capillarisation Around Muscle Tissue

The more capillaries you have around your muscles allows for more oxygen to be supplied to them for energy.

Increased Muscle Tone

More muscle tone helps improve our balance and posture

Long Term Effects of Muscular Strength Training

Muscular Hypertrophy

Your muscles get thicker, bigger, and sronger

Increased Bone Density

The stress on your bones from muscular strangth training causes them to increase in density. This means they are less likely to fracture.

Increased Tendon and Ligament Strength

This means they are less likely to tear so you are more liley to avoid injury