Yate Academy

A better chance of success

Year 7

Knowledge Organiser

Spring Term 2023-2024

GREENSHAW LEARNING TRUST

CONTENTS PAGE

English: Knowledge Organiser 7.2: Journeys

English: Knowledge Organiser 7.2: Journeys

7.2.1 The Story Type

According to Christopher Booker, there are **seven plots** that can be used to **describe all** the **stories** ever **told**. Treasure Island by Robert Louis Stevenson could arguably fit into the following categories.

The Quest	These stories involve a **protagonist** and their **companions** setting out to get an **important object** **or** **to an important location**. They will face **difficult temptations** and **obstacles** along the way.	**Jim Hawkins**, **Doctor Livesey and Squire Trelawney** set off to get the **treasure** of Captain Flint at an **Skeleton Island**. They will face **mutiny** along the way.
Voyage and return	These stories involve a **protagonist** going to a **strange land**, and **overcoming** the **threats** that they encounter on the way. When they **return** they are **changed** by their new experiences.	**Jim Hawkins** travels to **Skeleton Island** in the hope of getting the treasure left by the infamous pirate Captain Flint. He and his companions must **overcome a pirate mutiny**. When **Jim returns** home he is **changed** by his experiences.

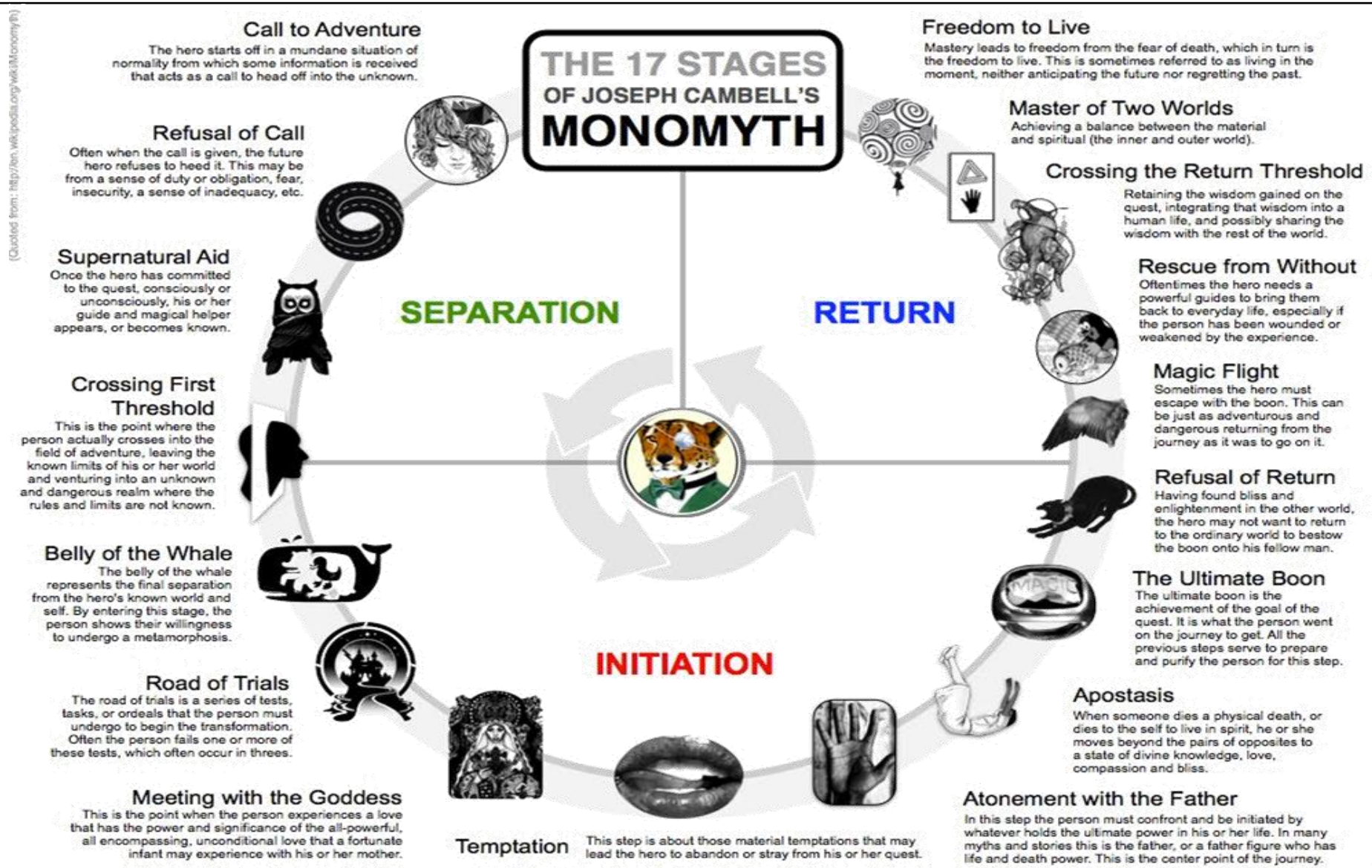
7.2.2 Archetypal Characters in Treasure Island

The Hero	The **protagonist**, the **key character** around whom the story is told. They are **not always stereotypically heroic** and may even be a **victim** or **someone seeking knowledge or treasure**.	**Jim Hawkins**, the first-person narrator. Jim is the son of an innkeeper near Bristol, and is in his early teens. He is **eager and enthusiastic** to go to sea and hunt for treasure. He is **modest, never boasting** of the remarkable **courage** and **heroism** he shows. Jim is often **impulsive** but he shows increasing **sensitivity** and **wisdom**.
The Helper	The **hero** is often **supported** by a **helper**. This individual often **possesses qualities that the hero is lacking**.	**Dr Livesey** is the local doctor. He is **wise** and **practical** and shows **common sense** and **rational thought** while on the island. He is **fair-minded** agreeing to treat the pirates with just as much care as his own wounded men.
The Villain	The **antagonist**, often showed to **contrast** with the **Hero** and **struggles against them**. They are typically **morally bad**.	**Long John Silver** is the cook on the voyage to Skeleton Island. Silver is the **secret ringleader of the pirate mutiny**. Silver is **deceitful** and **disloyal**, **greedy** and does not care about human relations. Yet he is **always kind toward Jim** and seems genuinely fond of the boy.
The Donor	The character that **gives something special** to the **Hero** such as a **magical weapon or some particular wisdom**.	**Squire Trelawney** is a local **nobleman**. Trelawney **arranges the voyage** to the island to find the treasure by **providing a ship** so that the journey can take place. **Benn Gunn** is a former pirate **marooned** on **Skeleton Island**. Ben's **solitude** has left him somewhat **deranged**, and he has the appearance of a wild man. **While alone he found the treasure** and **willingly helps** Jim by telling him about his **coracle**.
The Dispatcher	An early role in the story is that of the dispatcher, who **sends the hero on their mission**.	**Billy Bones or The Captain** is the old seaman who **stays at Jim's parents' inn**. Billy, who **used to be a member of Flint's crew**, is surly and rude. **Billy's sea chest and treasure map set the whole adventure in motion**.

English: Knowledge Organiser 7.2: Journeys

7.2.3 The Monomyth

According to Joseph Campbell there are **17 stages** that **captured** a **hero's journey**.



English: Knowledge Organiser 7.2: Journeys

7.2.4 Key Vocabulary

Accoutrement	Additional item of **dress** or **equipment**	**Ominous**	Giving the **worrying impression** that **something bad** is going to **happen**.
Adversary	A **competitor**; **enemy**	**Oppressive**	**Cruel**, **unfair**, **uncomfortable**, **closed** in, **stifling**.
Anti-hero	A **central character** who **lacks traditional heroic qualities** such as courage and morality.	**Pannikin**	A small **tin cup**
Apparition	A **ghost**	**Pious**	**Devoutly religious**; god-fearing
Before the mast	Serving as an **ordinary sailor** or apprentice seaman	**Quartermaster**	An **officer** with responsibility for steering and signals
Broadside	With the **side turned** in a particular direction / in a battle, the **simultaneous firing** of **all** the **cannons** on one side of the warship	**Resolutely**	With **purpose**
Courage	**Bravery**, a quality of mind which enables you to meet **danger** and **trouble without fear**.	**Scuppers**	**Drains** that allow **water** on the deck of a ship to **flow overboard**.
Desolate	**Abandoned**, **forsaken**, **deserted**	**Spires**	**Towers** that taper to points at the top.
Foreboding	A **feeling** that something **bad** is **going to happen** very soon.	**Stagnant**	**Not circulating** or flowing; **stale**, **dead**.
Hero / Heroism / Heroic	Showing great **bravery** and **courage**.	**Supplication**	A **plea** or **prayer** for **help**
Hostile	**Unfriendly**, showing strong **dislike**.	**Sweltering**	Excessively **hot** and **humid**, causing **sweating** and **faintness**.
Journey	The act of **travelling** from one place to another.	**Tension**	A **feeling** of **nervousness** before an important or **difficult** event.
Luff	The edge of a **foresail next** to the **mast**	**Tragic**	Very **sad**, usually involving **death** and **suffering**
Maroons	Those **stranded** or **left behind** with **no resources**, as on an island. The name was also given to escaped African slaves who fled to the most remote margins of the Caribbean and defied the European masters.	**Venture**	A **risky** or **daring journey** or course of action.
Mizzen-top	The **topsail** on the **mizzenmast**, the one behind the main mast.	**Villain**	A **character** whose **evil actions** or motives are **important** to the **plot**.
Monomyth	Joseph Campbell created 17 stages that captured a hero's journey.	**Virtue / Virtuous**	A **good moral quality** in a person, or the general quality of being morally good.
Morality	a **personal** or **social** set of **standards** for **good** or **bad behaviour** and **character**, or the quality of being **right** and **honest**.		

English: Knowledge Organiser 7.2: Journeys

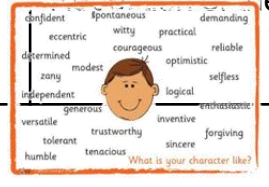
7.2.5 Word Classes		
Noun	**Person**, **place**, **object** or **idea**; they can be **concrete** or **abstract** and most nouns are **common** nouns, but some nouns are known as **proper** nouns	**Jim Hawkins** lived in an **inn** near **Bristol**.
Concrete nouns	Are **real physical things** that you can **see**, **touch**, **taste**, **smell** or **hear**. They are important because they **name** the **everyday things** around us.	On stormy nights, when the wind shook the four corners of the **house.**
Abstract nouns	Are **not real physical things** but are **ideas**, **feelings**, **concepts** or **beliefs**. They are important because they name the **feelings**, **ideas** and **values** which make us human.	But the great thing for boys is **discipline**, sonny—discipline.
Proper noun	A **word** or **group** of **words** that is the **name** of a **particular person**, **place**, or **thing** and that usually **begins** with a **capital letter**.	I saw **Black Dog** in full flight.
Common noun	A **word** that refers to a **person**, **place**, or **thing** but that is not the name of a particular person, place, or thing.	The captain, for his part, stood staring at the **signboard** like a bewildered man.
Verb	**Action word** or **state** of **being**	As he came **plodding** to the inn door.
Adjective	A **word** that **describes** a **noun** or a **pronoun**	A **tall**, **strong**, **heavy**, **nut-brown** man.
Adverb	A **word** that **describes** a **verb** or **adjective**; there are adverbs of **time**, **place** and **frequency**	His teeth were **tightly** shut and his jaws as strong as iron.
Pronoun	A **word** that **replaces** a **noun**	Blow through **his** nose like a fog-horn.
First Person	Uses the word "**I**" (and sometimes "**we**"). In other words, the **storyteller** gives a **personal account**.	"**I'm** a plain man; rum and bacon and eggs is what **I** want,"
Conjunction	**Words** that **connect phrases** or **clauses** in a sentence	I would see him in a thousand forms **and** with a thousand diabolical expressions.
Subordinating Conjunction	A **conjunction** that **introduces** a **subordinate clause**	**If, since, as, when, although, while, after, before, until, because** (ISAWAWABUB)
Coordinating Conjunction	A **conjunction** which **connects sentences/clauses** of **equal rank**	**For, and, nor, but, or, yet, so** (FANBOYS)
Preposition	**Words** that show the **relationship/position** of things	His coat, which he patched himself upstairs **in** his room, and which, before the end, was nothing but patches.

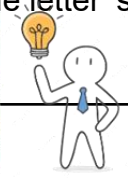
English: Knowledge Organiser 7.2: Journeys

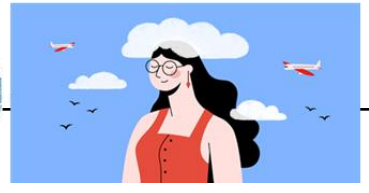
7.2.6 Sentence Structures		
Appositive Phrase	A **noun** or a **noun phrase** that **sits next to another noun** to **rename** it or to **describe** it in **another way**.	There was Jim Hawkins, **the young boy of the inn**, who worked hard day in and day out.
Sentence	A **group** of **words giving** a **complete thought**. A sentence must contain a **subject** and a **verb**.	A great number of people visited the Admiral Benbow Inn.
Declarative	Makes a **statement** and ends with a **full stop.**	The Captain had broken nails**.**
Imperative	A **command** or a **polite request**. It ends with an **exclamation mark** or a **full stop**	Go get some rum**.**
Interrogative	**Asks** a **question** and **ends** with a **question mark**	Have you seen a sea-faring man with one leg**?**
Exclamatory Sentence	Expresses **excitement** or **emotion**. It ends with an **exclamation mark**	The world will soon be quit of a very dirty scoundrel**!**
Independent Clause	A clause that can **stand alone** as a **sentence**. Remember that a sentence has a **subject** and a **verb**.	The surf roared along the cove.
Dependent/Subordinate Clause	Is one that **cannot stand alone** as a complete **sentence**	like a bewildered man.
Simple Sentence	Has just **one independent clause**. They are **not always short**, but they do **contain just one clause**.	There was a battle of looks between the Captain and the Doctor.
Compound Sentence	Has **at least two independent clauses**.	Jim lived in the Admiral Benbow and Billy Bones was a guest.
Complex Sentence	Has an **independent clause** and at **least one dependent/subordinate clause**.	He had the look of a man who sees a ghost, **or the evil one**, **or something worse.**

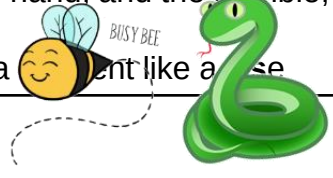
English: Knowledge Organiser 7.2: Journeys

7.2.7 Literary Techniques		
Characterisation	The methods that a writer uses to capture a character, such as – physical descriptions, speech, actions/reactions, inner thoughts…	A tall, strong, heavy, nut-brown man, his tarry pigtail falling over the shoulder of his soiled blue coat, his hands ragged and scarred, with black, broken nails, and the sabre cut across one cheek, a dirty, livid white.
Connotation	A feeling or idea that is suggested by a particular word, or something suggested by an object or situation.	Bones have connotations of death and evil. Pirates use the skull and crossed bones as their symbol.
Allusion	An allusion is a reference, usually short, to a person, place, thing, event, or other literary work with which the reader is presumably familiar.	Apples are an allusion to Adam and Eve eating from the tree of knowledge. Jim gains knowledge when he is inside the apple barrel.
Metaphor	A figure of speech in which a word/phrase is applied to an object or action which it is not literally applicable	On stormy nights, when **the wind shook the four corners of the house**
Personification	Giving human qualities to something that is inhuman	The sabre cut across one cheek, a dirty, **livid** white.
Pathetic Fallacy	When the weather reflects the mood or tone of a text, it can also reflect character personality or emotion.	The day after the **funeral**, and about three o'clock of a **bitter, foggy, frosty** afternoon.
Hyperbole	Exaggeration	His coat, which he patched himself upstairs in his room, and which, before the end, **was nothing but patches.**
Anthropomorphism	Giving human characteristics to an animal.	The solitary **oyster thought about it's loneliness.**
Zoomorphism	Giving animal characteristics to a human.	The children's shouting ruffled the **librarian's feathers.**
Simile	A comparison of one thing with another thing of a different kind, used to make a description more emphatic or vivid; uses 'as' or 'like'	He drank slowly, like a **connoisseur**.
Alliteration	Repetition of a letter or sound in a sentence	I saw Black Dog in **f**ull **f**light
Sibilance	Repetition of the letter 's'	I held out my hand, and the horrible, **s**oft-**s**poken, eyele**ss** cre… grip… in a … like a …se



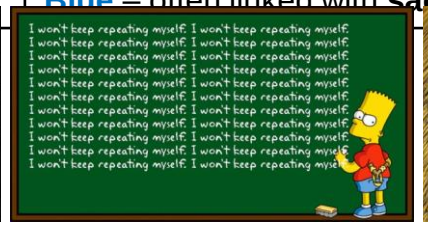


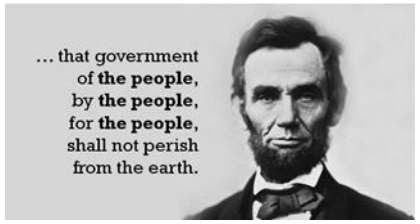



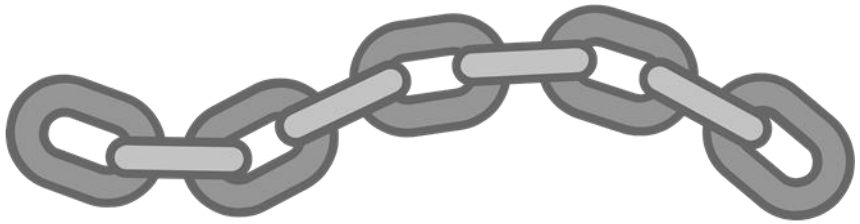



English: Knowledge Organiser 7.2: Journeys

7.2.7 Literary Techniques		
Foreshadowing	To act as a warning or sign of a future event.	I would only keep my weather-eye open for a seafaring man with one leg.
Repetition	The same word or phrase being used multiple times to create impact.	But the great thing for boys is **discipline**, sonny—**discipline**
Anaphora	Repetition of the same word or phrase at the start of consecutive sentences or sentence clauses.	about hanging, **and** walking the plank, **and** storms at sea, **and** the Dry Tortugas, **and** wild deeds **and** places on the Spanish Main.
Epiphora	Repetition of the same word or phrase at the end of consecutive sentences or sentence clauses.	The ice cream was **deliciously cool**. The iced coffee was **deliciously cool**. The swimming pool was **deliciously cool**.
Diacope	Repetition of a word or phrase with one or more words in between.	Fifteen men on the dead man's chest—**Yo-ho-ho, and a bottle of rum!** Drink and the devil have done with the rest! – **Yo-ho-ho and a bottle of rum!**
Epizeuxis	Repetition of a word or phrase in quick succession	**Pieces of eight! Pieces of eight!**
Anadiplosis	Repetition in which the last word of one clause or sentence is repeated as the first word of the following clause or sentence.	Greed led to a **mutiny**. **Mutiny** led to **fighting**. **Fighting** led to death.
Colour imagery	Different colours have different connotations. Certain colours will suggest certain ideas or feelings.	**Red** – often linked to **love**, **passion** or **anger** **Yellow** – often linked to **happiness** and **joy** **Blue** – often linked with **sadness**







English: Knowledge Organiser 7.2: Journeys

7.2.8 Treasure Island Plot

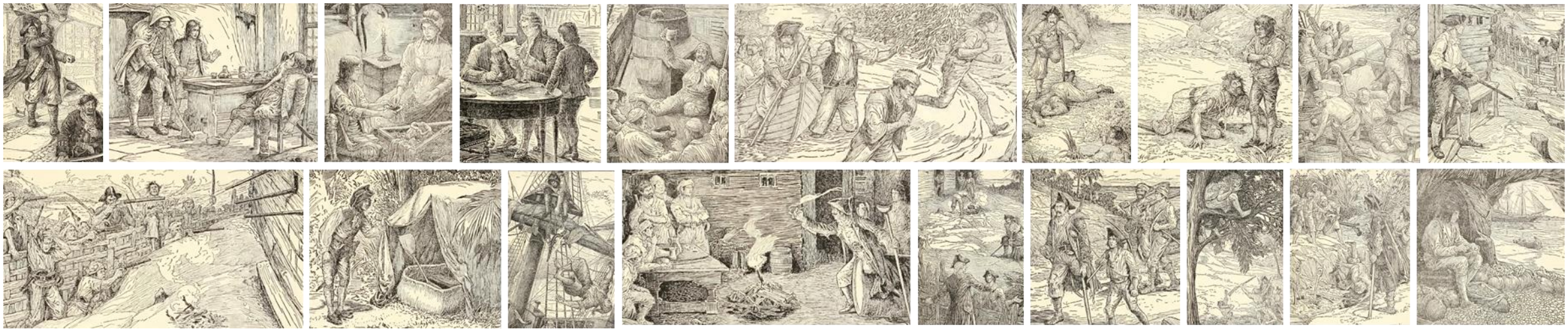
Part 1 – The Old Buccaneer	• **Jim Hawkins records his story** about Treasure Island. Jim begins by recounting his first meeting with the **Captain (also known as Billy Bones)** who **comes to stay at the Admiral Benbow**, the inn Jim's father owns. He **hires Jim to lookout for a seafaring man with one leg** whom he apparently fears. • A man named **Black Dog** arrives. He and Billy have **fight** and Black Dog runs away. **Billy suddenly succumbs to a stroke**. **Livesey saves Billy** and tells him to not drink rum. • **Billy explains that the former crew of the ship he sailed on**, under the now-dead Captain Flint, **wants his sea chest**. Jim encounters **Blind Pew** who **gives Billy the Black Spot**. **Billy** is stricken with a **fatal stroke**. • With **Billy dead** and knowing the **pirates are coming Jim's mother wants nothing but the money she is owed**, they go to the neighbouring village for help but no one will help them. **Inside the chest Jim's mother takes some money and when they hear people outside Jim grabs some papers to settle the score**. They run away but Jim's mother faints. Jim drags her under a bridge where they **hide while the pirates ransack the inn unable to find what they want**. • There is a pistol shot and the **pirates panic and flee**, leaving **Blind Pew** alone on the road where he is **killed by men on horseback**. **Officer Dance takes Jim and the papers to Dr Livesey and Squire Trelawney.** • They examine the papers and find that it is **a log of places Flint acquired loot**, and of the **sums of gold**. The packet also includes a **map of the island** where the whole **treasure now lies buried**, with longitude and latitude detailed. They **make plans to travel to this island to get the treasure**. Everyone present swears to secrecy.
Part 2 – The Sea Cook	• **Squire Trelawney gets them a ship, the Hispaniola**. He had some **trouble finding a crew** until he **met an one-legged sailor named Long John Silver**. Silver told Trelawney that he missed the sea and wishes to be a ship's cook. **Trelawney hires him, and Silver helps arrange the rest of the crew as well**. • **Jim sets out for Bristol**, accompanied by Tom Redruth, who will be on the ship's crew. • **Trelawney gives Jim a note to take to Silver** at his pub. **As Jim arrives, Black Dog quickly gets up and leaves** and Jim informs Silver he is a pirate. **Silver wins over Jim's trust.** Silver is introduced to Dr. Livesey. **Livesey is quite pleased to have Silver as the ship's cook.** • While boarding the ship, **Jim meets Mr. Arrow, the first mate**. There is some **animosity between Trelawney and Captain Smollett**. **Smollett is opinionated**, and speaks openly about his **dislike of most of the crew** and about **his bad feeling about the voyage**. Smollett says **there has been too much blabbing about the treasure. Livesey asserts that he trusts Silver and Smollett completely.** • The voyage begins, **Mr. Arrow, turns out to be a drunk**. **He disappears** mysteriously one night. **Job Anderson, replaces Arrow**. The voyage proceeds normally. One evening, **Jim gets hungry for an apple and climbs into an apple barrel**, where he **overhears an important conversation.** • **Jim overhears Silver convincing one of the crew to join his mutiny most of the crew are Flint's former crewmen who are plotting to take the treasure.** The cry of **"Land ho!" is heard from on deck.** • With the island visible, **Smollett and his crew discuss the best place to drop anchor**. Silver knows the island well. **Smollett congratulates the crew on a job well done, and then meets with Trelawney below deck**. **Jim goes below deck and warns Smollett, Dr Livesey and Trelawney about Silver's plan to mutiny**.
Part 3 – My Shore	• The crew is irritable. **Silver advises Captain Smollett of a good place to drop anchor**. **Smollett does not reveal what he knows about the planned mutiny**, he **allows the crew to go ashore**, which allows the **honest men to reclaim control of the ship**. Smollett takes Tom Redruth and several other

English: Knowledge Organiser 7.2: Journeys

7.2.8 Treasure Island Plot	
Part 3 – My Shore Adventure continued	• **Jim overhears Silver talking to a sailor named Tom**, trying to **persuade him to join the mutiny**. **Tom declines**. **They hear a piercing scream**. **Silver says it must be Alan**, another honest sailor who has refused to join the pirates. **Silver kills Tom**. Jim is terrified, realizing that he has no way to get back to the ship without being spotted and killed by Silver and his gang. **Jim starts to run deeper into the island**. • Fleeing the pirates, **Jim sees a human figure in the woods**. The man is **Ben Gunn**. Jim learns that Ben **once served on Flint's crew and thus knows all the current mutineers**. **Ben was marooned after a failed treasure hunt three years ago**. Ben mentions that **he made a boat**. He **assures Jim that he can locate the treasure in return for safe passage home.**
Part 4 – The Stockade	• **Dr. Livesey takes over the narration**. Discovering that Jim is with the mutineers, Livesey and Captain Smollett fear for Jim's safety, and **Livesey goes ashore** along with Hunter. Once ashore, Livesey comes upon a **stockade near a spring**. Livesey tells the others what he has found. **The men load two boats with provisions**. • **The little boat carrying Captain Smollett, Squire Trelawney, Dr. Livesey, Tom Redruth, and Abraham Gray is overloaded**. **Trelawney tries to shoot Israel Hands (who was Flint's gunman). Hands fires a cannonball at the men's boat**. **No lives are lost**, as the water is shallow, but **the men are forced to leave half of their provisions behind**. • **Captain Smollett and his group make their way to the stockade**. Tom **Redruth is shot and dies**. **Trapped in the stockade**, the group is **bombarded by cannon fire** throughout the evening. **Jim suddenly enters.** • **Jim resumes the narration**. **Having seen the Union Jack flying above, he approaches the stockade** along with Ben Gunn. Jim enters the stockade to **join Smollett's group and tell his story**. **Jim sleeps, but wakes to hear someone say that Long John Silver is approaching with a flag of truce.** • **Captain Smollett is wary of Silver** fearing a trick. **Silver wants to reach a compromise**. He **demands the treasure map** in exchange for a cease-fire. **Smollett refuses**. Silver tries again, promising the captain and his men safe voyage home for the map. When Smollett refuses, **Silver leaves indignantly.** • **Captain Smollett predicts that the pirates will attack**. **They hear a few shots and see the pirates scrambling over the stockade fence**. Gray and Squire Trelawney fire on the pirates, wounding several. **A fight ensues, Smollett, Dr. Livesey, Jim, and most of the others return safely to the stockade, having lost fewer men than the mutineers.**
Part 5 – My Sea Adventure	• Seeing **no further signs of attack**, Captain Smollett and his men **relax**. **Dr. Livesey goes walking out into the trees, taking the map with him**. Livesey is **going to speak to Ben Gunn**. **Jim decides to go search for the boat that Ben had mentioned he had built**. **Jim finds the small handmade boat, which is a coracle. Jim decides he will sail out to the Hispaniola and cut it adrift**. • **Jim finds the coracle hard to sail but he reaches the anchored ship**. Jim **cuts the rope and sets the Hispaniola adrift**. Jim is startled to find that he has drifted near the pirates'. Sure of imminent death, he commends his soul to God and falls asleep in the coracle, dreaming of home. • Upon awakening, **Jim spots the Hispaniola drifting aimlessly**. Jim decides to try to board the Hispaniola. **Reaching the ship, Jim climbs on board**. He hears the sound of the ship's hull destroying the coracle, and knows that escape from the ship is now impossible. • **Jim finds Israel Hands, who lies splashed with blood and drunk alongside a dead man**. Hands, begs for a little brandy which Jim brings him. **Hands strikes a deal with Jim: if Jim gives Hands food, drink, and medical help, Hands will assist Jim in sailing the ship. They steer the ship toward the North Inlet of the island.** • **Hands claims that the brandy is too strong and asks Jim for wine**. **Jim feigns innocence and goes to fetch some, but watches Hands in secret and**

English: Knowledge Organiser 7.2: Journeys

7.2.8 Treasure Island Plot	
Part 5 – My Sea Adventure continued	• **Shuddering, Jim frees himself by ripping the bit of shoulder skin that the knife has pinned to the mast**. Jim decides that he is close enough to the island to swim to shore safely. **He reaches the island and treks through the woods in search of Captain Smollett's stockade** on the other side of the island**. Creeping into the stockade, Jim finds the men asleep. A voice suddenly cries out, "Pieces of eight!" and Jim recognizes the voice of Silver's parrot, Cap'n Flint**. Realizing that the pirates have taken over the stockade, Jim tries to flee but is held tight.
Part 6 – Captain Silver	• **Only six of the pirates are still alive**. **Silver is having trouble managing his men**. **Jim** reveals that he **cut the rope on the ship and killed Hands**. Silver whispers to Jim that **the men are close to mutiny**. **Silver reveals that Livesey has given him the treasure map**. • **Silver** is given the **black spot** telling him he has been **deposed** as leader. **Silver flings down the treasure map** and **the men are once again on his side**. • **Dr. Livesey** arrives to **tend to the pirates**. He asks to **see Jim alone**. Livesey **accuses Jim of being cowardly** in **deserting** the **captain**. **Livesey suggests** that they **make a run for it**. **Jim responds** that **it would not be right**. He **tells Livesey** that **he knows the location of the Hispaniola**. **Livesey returns Jim as a hostage** and **warns** Silver **not to be in any hurry** to find the treasure. • The **pirates** set off on the **treasure hunt**. They find a **skeleton**, **stretched** out **pointing to the treasure**. • The **pirates hear a voice singing**. They **believe** the **voice is Flint's and they think they have awakened a ghost**. The pirates hear the voice again, and **it wails Flint's last words**. At the treasure site, the **pirates are shocked to find only an empty hole.** • The **angered pirates** suddenly seem **united against Silver**. Suddenly a **gun fires** from somewhere. **Silver shoots one** of the **pirates** and he **others flee**. Dr. Livesey, Ben Gunn, and Abraham Gray emerge from the trees. Silver thanks Livesey for saving him from the uprising. We learn that **Ben**, had **dug up** the **treasure**, and **moved it** to a cave. **Livesey gave** the **map** to **Silver** as he **knew** it was **useless**. • The **men transport** the **treasure** to the **Hispaniola**. They decide to **leave** the **three mutineers marooned** on the island with a small amount of provisions. On the journey home **Silver crept off the ship** with a few backs of treasure. The Hispaniola returned to Bristol.



Maths: Knowledge Organiser 7

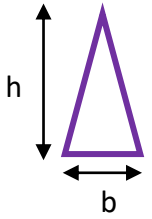
1. Number

Prime Numbers: 2, 3, 5, 7, 11, 13, 17, 19…
I know 2 is a prime factor because it only has 2 factors.
Square Numbers: 1, 4, 9, 16, 25, 36, 49, 64, 81, 100, 121, 144, 169, 196, 225…
I know 9 is a square number because 3 multiplied 3 equals 9.
Cubes Numbers: 1, 8, 27, 64, 125…
I know 125 is a cube number because 5 multiplied by 5 multiplied by 5 equals 125.
Factor
I know 5 is a factor of 20 because 5 multiplied by 4 equals 20.
Multiple
I know 30 is a multiple of 10 because 10 multiplied by 3 equals 30.

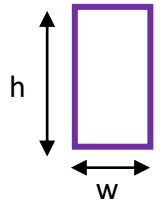
2. Shape

Area Formulae:

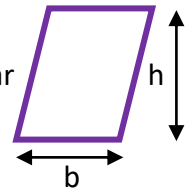
Triangle
Area = ½ × b × h
b = base
h = perpendicular height



Rectangle
Area = w × h
w = width
h = height



Parallelogram
Area = b × h
b = base
h = perpendicular height



3. Algebraic Definitions

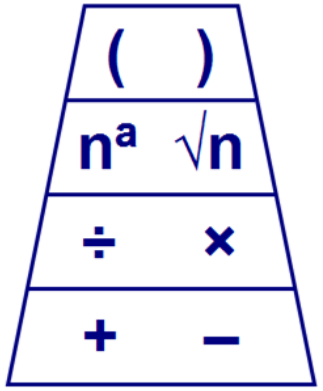
A **formula** is a rule written using symbols that describe a relationship between different quantities. Examples: $A = \pi r^2$ $C = \pi d$

An **expression** is a group of mathematical symbols representing a number or quantity. Examples: $3a$ $5t^3 + t^3$

An **equation** is a mathematical statement that shows that two expressions are equal. It always includes an equals sign. Examples: $x^2 = 100$ $3x(x + 5) = 42$

An **identify** is an equation that is always true, no matter what values are chosen. ≡
Examples: $3a + 2a = 5a$ $x^2 + x^2 \equiv 2x^2$

4. Order of Operations (BIDMAS)



5. FDP

Fraction	Percentage	Decimal
$^1/_{10}$	10%	0.10
$^1/_5$	20%	0.20
$^1/_4$	25%	0.25
$^1/_2$	50%	0.50
1	100%	1

6. Averages and Data

The **Mode** is simply the number which appears **most often.**
The **Median** is the ***"middle"*** of a sorted list of numbers.
The **Mean**: **add up** all the numbers, then **divide by how many** numbers there are.
The **Range** is the difference between the lowest and highest values.

7. Fractions

$\frac{1}{2}$

Numerator: The top half of the fraction. The number of parts you have.
Denominator: The bottom half of the fraction. The number of parts in a whole.

$\frac{5}{2}$ **Improper Fraction**

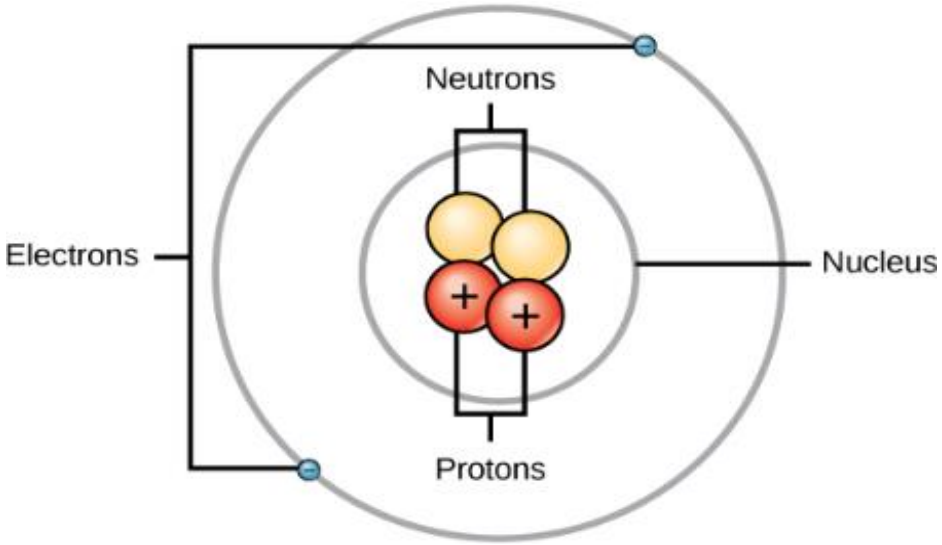
$1\frac{1}{2}$ **Mixed Number Fraction**

Science 7.2 Atoms

7.2.1 Atoms		
1	Atom	Atoms are the smallest particles of an element that still have the properties of the element
2	Energy Level/shell	An area on the outside of the atom where electrons are found. Atoms can have many energy levels.
3	Nucleus	The central area of an atom where protons and neutrons are located, this part of the atom contains the mass (this mass is due to the neutrons and protons within nucleus)
4	Electron	A particle, found in the energy level, it has a negative charge and a negligible mass (1/2000th of the mass of a proton).
5	Proton	A particle found in the nucleus of the atom. It has a positive charge and a relative mass of 1.
6	Neutron	A particle found in the nucleus. It has a relative mass of 1 and no charge.
7	Atomic number	Shown for each element on the periodic table, this number states the number of protons in the nucleus (proton number)
8	Atomic Mass	The sum of the protons and neutrons in the nucleus, (number of protons and neutrons added together).
9	Positive	A type of charge indicated by the symbol +.
10	Negative	A type of charge indicated by the symbol -.

7.2.2 The structure of the atom

	Particle	**Location**	**Charge**	**Mass**
1	Proton	Nucleus	1+	1
2	Neutron	Nucleus	No Charge	1
3	Electron	Energy Level	1-	1/2000th Mass of proton

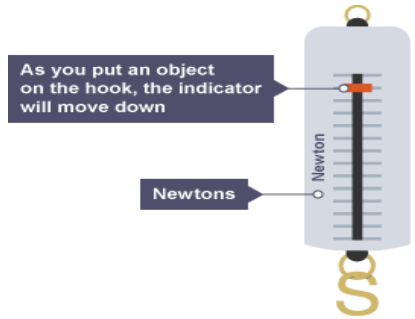


Forces

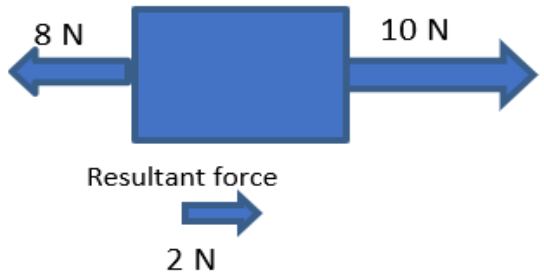
7.2.3 Forces

1	Effects of forces	• A change in speed (acceleration) • A change in the object's direction of movement • A change in the object's shape
2	Contact forces	Forces which act between objects or particles that are touching. e.g. Friction
3	Non-Contact Force	Forces which act between objects even if they are NOT touching. E.g. Gravitational Force
4	Unit of Force	Newton(s)
5	Weight	The force pulling an object towards the centre of the Earth, due to gravity.
6	Gravity	The force between any two objects with mass. We only notice gravity's pull if the objects are very large, like the Earth.
7	Upthrust	The upwards force produced by objects pushing down on fluids (liquids and gases).
8	Normal contact force	The push force produced on objects when they push on something solid. Also called 'reaction'.

7.2.4 Measuring the size of forces

1	Newton meter	Laboratory equipment for measuring forces 

7.2.5 Key Terms

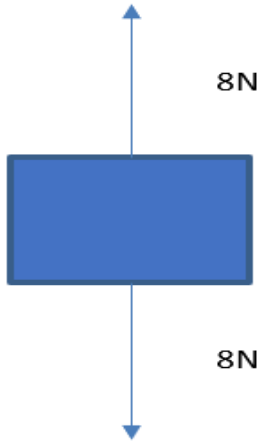
1	Force Arrows	• The length of the arrows shows how large the force is. • The direction shows the direction the force pushes or pulls.
2	Resultant force	The single overall force acting on an object
3	Balanced force	An object that has a resultant force of 0
4	Unbalanced force	An object that has a resultant force of more than 0
5	Calculating Resultant Force	1. Add up forces acting in the same direction 2. Subtract forces acting in opposite directions. *Example:* 

7.2.6 Unbalanced forces

1	Resultant Force = 0	Forces are unbalanced and the object will remain at a constant velocity.
2	Resultant Force does not equal 0	The object's speed change, either accelerating (speeding up) in the direction of the force or decelerating (slowing down) in the direction of the force
3	Acceleration and Mass	Larger resultant force will be needed to accelerate objects with more mass

Science 7.2 Forces 1

7.2.7 Key Terms		
1	Work Done	When energy is transferred work is done.
2	Calculating Work Done	Work Done (Joules) = Force (Newtons) x Distance (Metres)
3	Unit	Work done is measured in Newtonmeters or joules

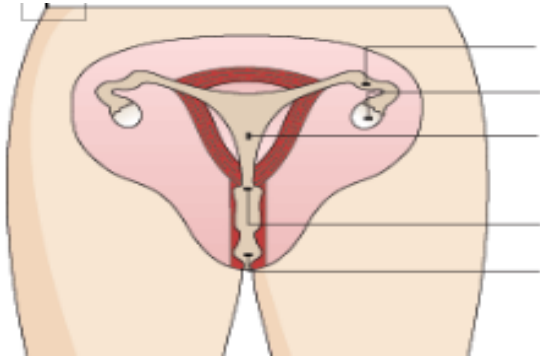
7.2.8 Free Body Force Diagrams		
1	Free Body Force Diagram	We can show the forces acting on an object by drawing a free body force diagram. *Example:* 
2	Force Arrows	As force is a vector quantity the arrows show size and direction, arrows always start from the object's centre of mass
3	Drawing Objects	We represent all objects as a box

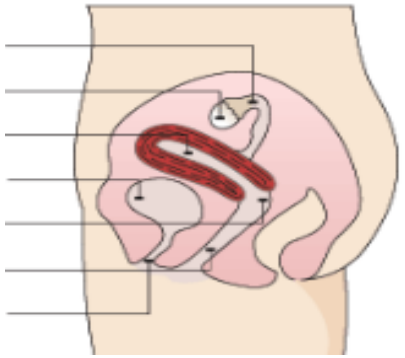
Science 7.2 Organisation 2

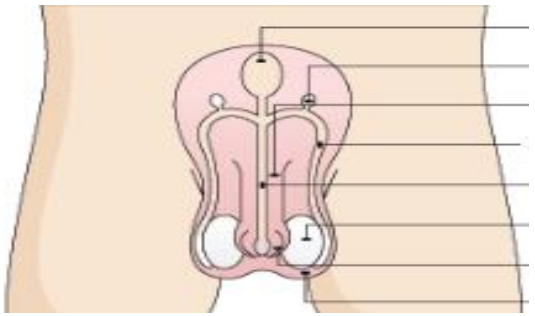
7.2.9 Key Terms		
1	Reproductive system	All the male and female organs involved in reproduction.
2	Ovary	Organ which contains eggs.
3	Testicle	Organ where sperm are produced.
4	Penis	Organ which carries sperm out of the male
5	Scrotum	The skin that holds the testes
6	Urethra	The tube that carries either urine or semen out f the body through the penis

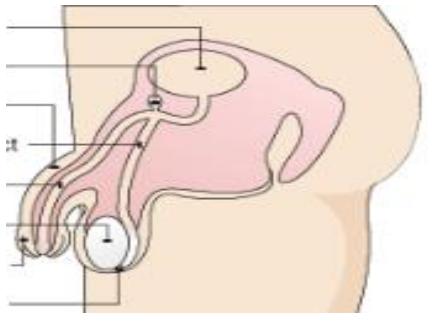
7.2.11 Key Terms		
7	Vagina	Where the penis enters the female sperm is received. This is also called the birth canal.
8	Oviduct, or fallopian tube	Carries an egg from the ovary to the uterus and is where fertilisation occurs.
9	Uterus	Where an embryo develops into a foetus and eventually into a baby.
10	Cervix	A muscular ring that helps keep a foetus in place in the uterus during pregnancy. During birth it dilates to 10cm
11	Gamete	Gametes are sex cells. The male gametes are sperm, the female gametes are eggs.

7.2.10 Female Anatomy	
1	Oviduct
2	Ovary
3	Uterus
4	Bladder
5	Cervix
6	Vagina
7	Urethra









7.2.12 Male Anatomy	
1	Bladder
2	Glands
3	Penis
4	Sperm Duct
5	Urethra
6	Testis
7	Foreskin
8	Scrotum

Science 7.2 Organisation 2

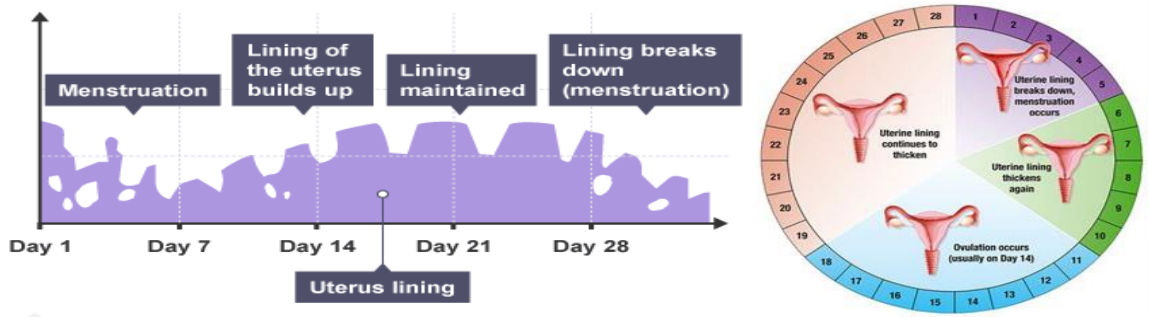
7.2.13 Puberty

1	Puberty	The process of physical changes in a child's body matures into an adult that is capable of sexual reproduction.
2	Timing of Puberty	Usually happens between ages 10 and 14 for girls and ages 12 and 16 for boys
3	Changes in Girls	• Breasts develop • Hips widen • Pubic hair grows
4	Changes in Boys	• Voice gets deeper • Pubic hair to grow

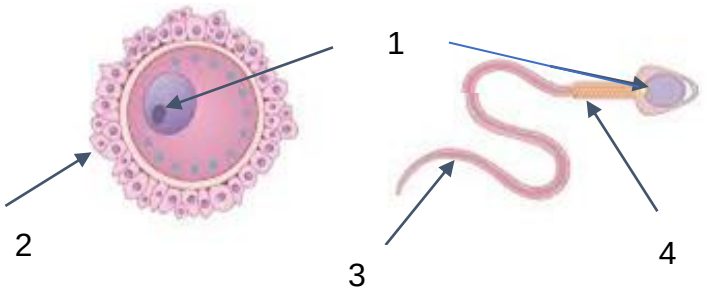
7.2.14 Key Terms

1	Ovulation	Release of an egg cell during the menstrual cycle, which may be met by a sperm.
2	Menstruation	Loss of the lining of the uterus during the menstrual cycle.
3	Adolescence	The period of time, following puberty during which children mature into adults.
4	Secondary sexual characteristics	Features, such as pubic hair or breasts developing, that appear during puberty.

7.2.15 Menstrual Cycle



1	Menstrual Cycle	
2	Day 1 – 5	Period happens (menstruation) where lining of the uterus breaks down
4	Day 6 – 13	• Uterus lining builds up (thickens) • The egg matures in the ovary
5	Day 14	Egg (ovum) released from the ovary and travels down the oviduct
6	Day 15 – 28	Uterus lining stays thick, in case the egg is fertilised



7.2.16 Parts of Sex Cells

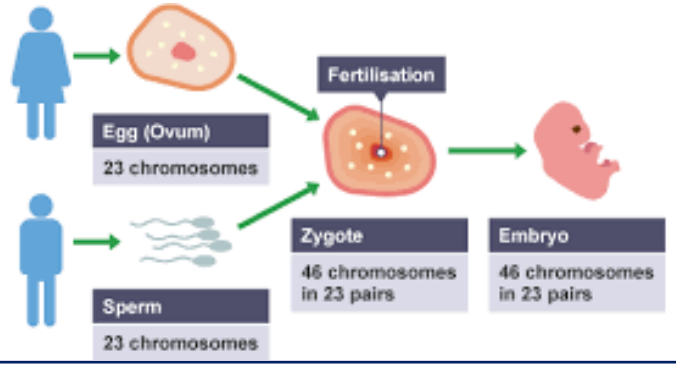
1	Nucleus
2	Protective Layer
3	Tail
4	Mitochondria

Science: 7.2: Organisation 2

7.2.17 Key Terms

1	Fertilisation	Joining of a nucleus from a male and female sex cell (gamete)
2	Implantation	When the growing embryo becomes embedded in the thick, spongy uterus lining.
3	Gestation	Process where the baby develops during pregnancy. In humans it takes around 40 weeks.
4	Placenta	Organ that provides the foetus with oxygen and nutrients and removes waste substances.
5	Amniotic fluid	Liquid that surrounds and protects the foetus.
6	Amniotic sac	A thick membrane that encloses the amniotic fluid (and developing foetus)
7	Umbilical cord	Connects the foetus to the placenta.
8	Embryo	The developing baby from fertilisation to 12 weeks.
9	Foetus	The developing 'baby' from 12 weeks until it is ready to be born.

7.2.18 Key Terms



7.2.19 Gestation

The following outlines the order of the process of gestation:

1	Step 1	The zygote begins to divide into a ball of cells called an embryo.
2	Step 2	The embryo grows as cells continue to divide and travels to the uterus.
3	Step 3	• The embryo implants into the uterus wall. • The embryo now gets oxygen and nutrients from the mother's blood.
4	Step 4	From week 12, we call the growing embryo a foetus, it now contains many specialised cells.
5	Step 5	A **placenta** grows, this is a special organ that acts as a barrier between the foetus' and mother's blood.

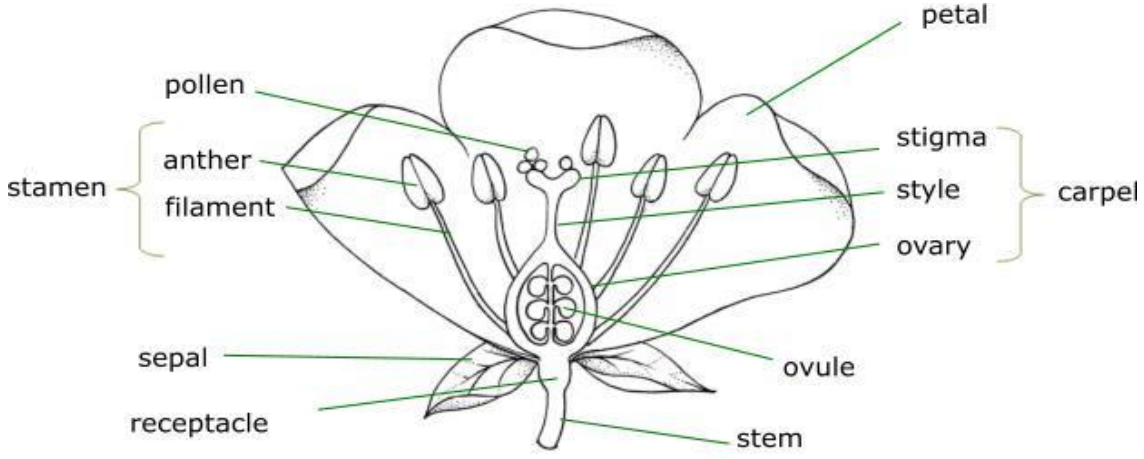
7.2.20 Birth Process

The following outlines the order of the process of giving birth after 40 weeks of pregnancy:

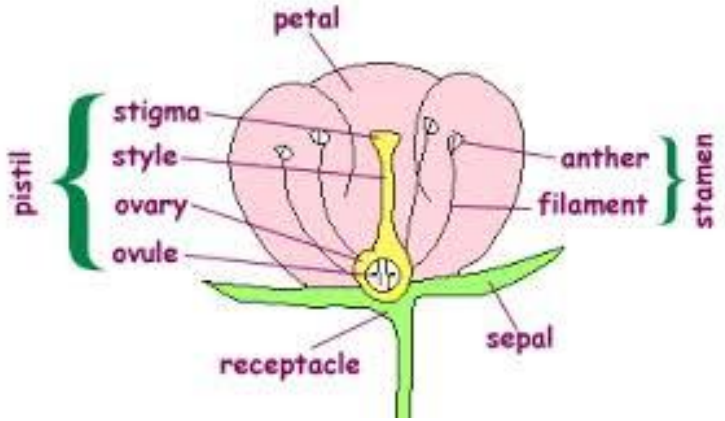
1	Contraction	The muscles in the wall of the uterus contract (contraction)
2	Dilation	The cervix dilates (gets bigger) to 10cm. This is big enough for the foetus's head to pass through.
	Labour	These contractions get stronger and faster
4	Waters Breaking	After some time of labour, the amniotic sac breaks, which releases the fluid
5	Birth	• Contractions push the baby headfirst through the cervix and then through the birth canal - vagina. • The foetus is now called a **baby.**

Science 7.2 Organisation 2

7.2.21 Plant reproductive system		
1	Pollen	The male gamete (sex cell)
2	Stigma	Structure that the pollen sticks to
3	Style	Connects the stigma to the ovary
4	Ovary	Produces and stores ovules
5	Ovule	The female gamete (sex cell)
6	Anther	Produces the pollen
7	Filament	Holds the anther to the edge of the flower



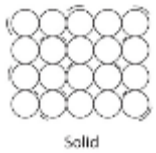
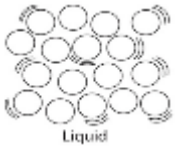
7.2.22 Fertilisation		
1	Plant Fertilisation	• After pollination the pollen travels down a tube called the style to the ovary • Nucleus of pollen cell joins to the ovum forming a seed (called fertilisation) • Plants then form fruits often from ovary walls



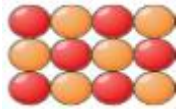
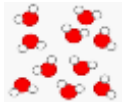
7.2.23 Pollination		
1	Pollination	Pollination is the transfer of pollen from the anthers of one flower to the stigma of another flower (of the same species).
2	Wind Pollination	In wind pollination, the wind carries the pollen from the anthers of one flower to the stigma of another
3	Insect Pollination	Insects carry the pollen from anthers to stigmas. They go to flowers to get nectar for food (e.g. bees), and the pollen sticks to them so they carry it onwards.

Science: 7.2: Elements and the Periodic Table

7.2.24 Atoms

1	Atoms	Smallest units of matter that have the properties of an element. All substances that exist are made of atoms.
2	Solids	Atoms arranged in regular rows  Solid
3	Liquids	Liquid  Liquid
4	Gases	Atoms randomly arranged  Gas

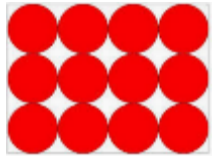
7.2.25 Compounds

1	Compounds	Substances made of two or more different elements chemically bonded together.
2	Representing Compounds	Both diagrams show compounds because the atoms are different colours and, on the right diagram, different sizes.  
3	Scientific Models	A model is useful as a way of understanding a concept, but it is a simplification.
4	Particle Model Limitations	The model doesn't show the movement of particles, the three-dimensional nature of matter, the correct relative sizes of the atoms, or the colour of the atoms.

7.2.26 Key Terms

1	Particle diagram	A diagram used to show that substances are made of particles. They illustrate the arrangement of particles, whether the substance is a solid, liquid or a gas, whether a substance is an element or a compound, the relative sizes of atoms,
2	Scientific model	A way of understanding a scientific concept that usually involves simplifying the concept. Simplifying a concept means scientific models have limitations.
3	Simplification	Explaining something complex in a simpler way. Sometimes, when an explanation is simplified it has limitations.
4	Limitation	- A weakness in an explanation/scientific model. - An area a scientific model can't explain.
5	Relative size (of atoms)	The size of something compared to something else (how big one atom is compared to another)

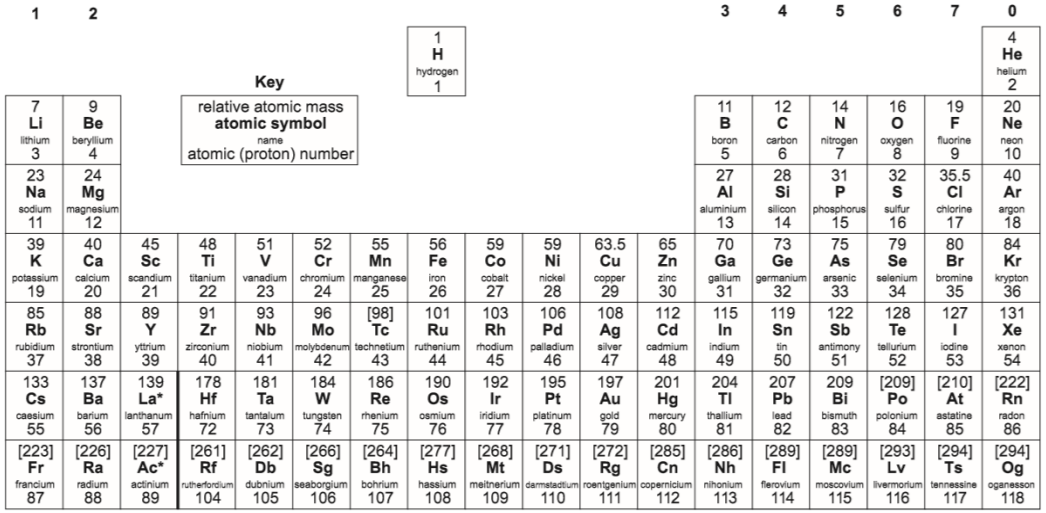
7.2.27 Elements

1	Element	• Elements are substances made of one type of atom. • Elements are the different types of atom found in the periodic table.
2	States of Matter	Most elements are either solid or gas at room temperature, only bromine and mercury are liquid at room temperature.  

Science: 7.2: Elements and the Periodic Table

7.2.28 The Periodic Table

1	Periodic Table	All the elements that exists are displayed in the periodic table.
2	Arrangement of Elements	Arranged according to their properties and their atomic number.
3	Metals Location	Metal elements are found on the left-hand side and in the middle of the periodic table.
4	Non-Metals Location	Non-metal elements occur in the top right-hand corner of the periodic table.
5	Metal Properties	• High melting point • Conductor of electricity and heat • Malleable
6	Non-Metal Properties	Non-metals have low melting points, are poor conductors of electricity and heat and are not malleable (there are some exceptions).



7.2.29 The development of the Periodic Table

1	Early Periodic Table	Early models of the periodic table arranged elements in order according to their atomic weight.
2	Issues with early periodic table	Some elements were positioned incorrectly according to their properties.
3	Mendeleev's Periodic Table	Mendeleev created a periodic table that positioned elements both in order of their atomic weight and with other elements of similar properties.
4	Gaps in Mendeleev's Periodic Table	Mendeleev left gaps for undiscovered elements where he predicted they must go and predicted their properties with a high level of accuracy.
5	Modern Periodic Table	Today, the periodic table is arranged according to atomic number, rather than atomic weight.
6	Scientific Process	The use of evidence to develop theories, and adjusting theories as more discoveries are made.

7.2.30 Key Terms

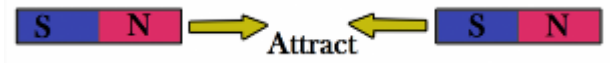
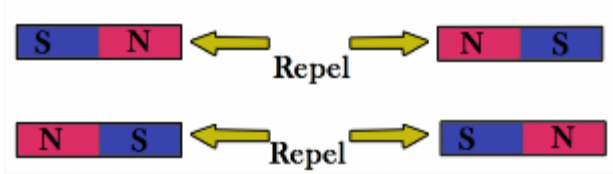
1	Property	A way of describing how a chemical acts or behaves.
2	Malleable	Can be hammered or pressed into shape without breaking or cracking.
3	Conductor	Allow electricity or heat to pass through.
4	Atomic weight	The mass of an atom. Each element has a different mass. It is determined by the number of protons and neutrons in the nucleus.
5	Atomic (proton) number	The positive charge of the nucleus, indicates the number of protons in the nucleus.

Science: 7.2 Electricity and Magnetism

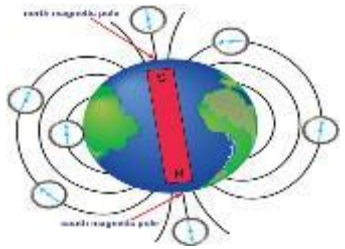
7.2.31 Magnetic materials

1	Magnetic Materials	Not many materials are attracted to magnets and most metals are NOT magnetic
2	Magnetic Materials	• Iron, cobalt and nickel are magnetic metal elements. • Steel is also magnetic as it is a mixture containing mostly iron.
3	Non-Magnetic Materials	• Gold, Magnesium, Copper, Silver, Aluminium and Zinc are not attracted to magnets.

7.2.32 Magnetic poles

1	Magnetic Poles	All magnets have a north pole and a south pole.
2	Opposite Poles	Opposite poles attract. 
3	Like Poles	Like poles repel. 

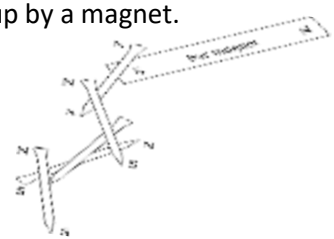
7.2.33 The Earth

1	Earths Magnetic FIeld	The earth has a molten iron core which causes a magnetic field.	
2	Compass Needles and Earths Magnetic Field	If there are no other magnets nearby, a compass needle points in the direction of the **Earth's magnetic field**.	

7.2.34 Key Terms

1	Magnetism	A property of some materials to exert a force on other magnetic materials.
2	Attract	Force that pulls two objects together.
3	Repel	Force that pushes two objects apart.
4	Magnetic poles	All magnets have a north pole and a south pole.
5	Permanent magnet	Permanent magnets always have magnetic properties.
6	Induced magnet	Induced magnets only act as magnets when they are in a magnetic field.
7	Magnetic field	The area around a magnet that the force acts.
8	Magnetic compass	A magnetic compass always points along field lines in the direction of north.

7.2.35 Permanent magnets

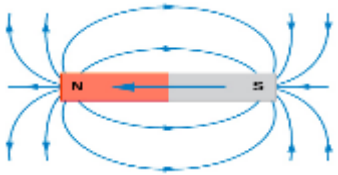
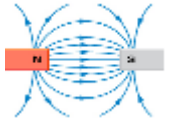
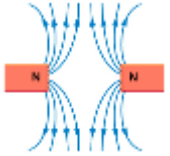
1	Permanent Magnets	Permanent magnets always have magnetic properties
2	Magnetic Materials	Magnetic materials become induced magnets when they are in a magnetic field.
3	Magnetising a Nail	When the magnetic field is removed, induced magnets will lose their magnetism, eg nails picked up by a magnet. 

Science: 7.2: Electricity and Magnetism

7.2.36 Magnetic Compass

1	Magnetic Compass	A magnetic compass contains a small bar magnet (the needle). A nearby magnet field will cause the needle to move in line with the magnetic field. 

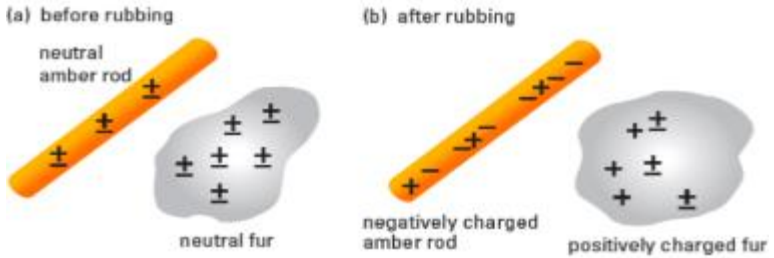
7.2.37 Magnetic Compass

1	Magnetic Field	The area around a magnet where its force can affect other magnetic objects is called the magnetic field.
2	Observing Magnetic Fields	The magnetic field is invisible but we can use a compass or iron filings to view the shape of the field.
3	Direction of Field Lines	Field lines always point from north to south. 
4	Field Lines - Attraction	The magnet fields of attracting magnets line up. 
5	Field Lines - Repulsion	When magnets repel the magnetic fields do not line up. 

7.2.38 Charged Particles

1	Charges on Particles	Some particles are charged. Charge can be positive (+), negative (-), or neutral (0).
2	Opposite Charges	Opposite charges attract. 
3	Like Charges	Like charges repel. 

7.2.39 Charging objects with friction



1	Charges on Particles	Electrical insulators can become charged. An object that is rubbed can become charged by gaining OR losing electrons because of the friction force.
2	Like Charges	An object that loses electrons becomes positive (+)
3	Opposite Charges	An object that gains electrons becomes negative (-)

Science: 7.2: Electricity and Magnetism

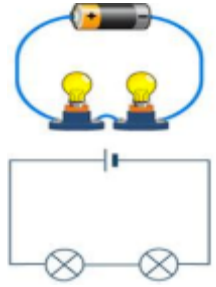
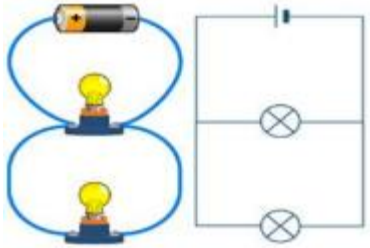
7.2.40 Key Terms		
1	Charge	A property of some particles, which causes them to experience a force when they are near others. Charge can be **positive** or **negative.**
2	Proton	A subatomic particle with a **positive charge**.
3	Neutron	A subatomic particle with **no charge** (they are **neutral**).
4	Electron	A subatomic particle with a **negative charge**.
5	Electrical insulator	A material that prevents the flow of electrons.
6	Electrical conductor	A material that allows the flow of electrons.
7	Static electricity	This occurs when the positive and negative charges on an electrical insulator are unbalanced.
8	Electroscope	An instrument that can be used to detect electrical charge.

Science: 7.2: Electricity and Magnetism

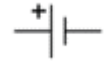
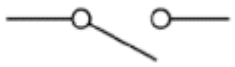
7.2.41 Electrical current

1	Current	Current is the rate of flow of electrical charge.
2	Electrical Conductors	Electrical conductors allow electrons to flow through them.
3	Potential Difference	A cell or battery sets up the difference in charge in the circuit, which causes electrons to flow from the negative charge towards the positive charge.

7.2.42 Drawing circuit diagrams

1	Series Circuits		Series circuits contain only one loop or path for the current to flow.
2	Parallel Circuits		Parallel circuits contain more than one loop or path for the current to flow.
3	Adding bulbs to series circuits		The more bulbs you put in the circuit, the dimmer the bulbs get.
4	Adding bulbs to parallel Circuits		Adding new bulbs to the circuit in their own loop does not affect the brightness of other bulbs in the circuit.

7.2.43 Key Terms

1	Electrical current	A flow of electrical charge.
2	Cell 	A chemical store of energy that can cause an electrical current to flow in a circuit.
3	Battery 	Two or more electrical cells working together.
4	Connecting lead	A metal wire that allows current to flow through it easily.
5	Lamp / bulb 	A filament lamp contains a tiny wire that heats up when a current flows through it which emits light.
6	Open switch 	This provides a break in an electrical circuit so that current cannot flow.
7	Closed switch 	This connects the electrical circuit and allows current to flow.
8	Series circuit	An electrical circuit where all the components are connected in one loop.
9	Parallel circuit	An electrical circuit containing more than one loop or path for the current to flow.
10	Energy pathway	A way of transferring energy from one store to another, for example electrical current.

Science 7.2: Working Scientifically

7.2.44 Hypotheses and Variables

1	Hypothesis	A hypothesis is a prediction made about an experiment based on some previous scientific knowledge.
2	Dependent Variable	What we measure
3	Independent Variable	What we change
4	Control Variable	What we keep the same

7.2.45 Methods

1	Contents of a method	• A clear sequence • Information on which equipment to use • Volumes and masses for reagents • Scientific language

Example method:

Sequencing

Precision

1. 25cm^3 sulphuric acid was added to a small beaker.
2. Using a spatula, excess insoluble base (copper oxide powder) was added to the acid. Check the base is in excess by looking for remaining powder in the beaker.
3. The excess base was filtered out using filter paper in a funnel. The filtrate was allowed to filter into a conical flask.
4. When filtration was complete, the filter paper was discarded and the filtrate solution was poured into an evaporating dish.
5. The solution was left for a few days or the evaporating dish heated for the dissolved salt to crystallise.

Scientific language

Equipment

7.2.46 Key Terms

1	Independent variable	The variable you change to find out its effect on the dependent variable
2	Dependent variable	The variable you measure to see how it changes
3	Control variable	Any variable that you must keep the same to ensure it doesn't affect the dependent variable
4	Mean	The total of the values divided by the number of values
5	Anomalous data	Data that does not fit the expected pattern

7.2.47 Results Tables

1	Results table layout	The independent variable should always go in the first column, the dependent variable then goes in the column to the right of this.
2	Contents of a results table	• Show all repeat measurements • Include the units in the headings • Circle anomalies • Discount these when calculating a mean

Example results table:

Concentration of acid (M)	Time taken for reaction to complete (s)			Mean (s)
0.1	102.1	105.6	103.4	103.7
0.2	88.8	86.5	87.2	87.5
0.3	69.1	67.3	64.2	66.9
0.4	56.2	40.1	53.3	54.8
0.5	32.1	30.1	33.2	31.8

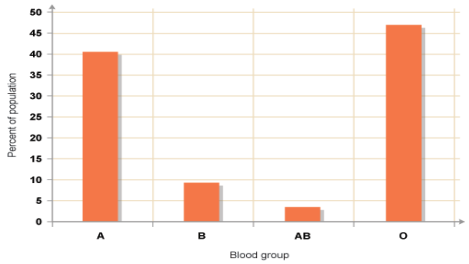
Science 7.2: Working Scientifically

7.2.48 Common laboratory equipment

1	Beaker		For pouring and transferring liquids and solutions.
2	Conical Flask		For carrying out reactions
3	Bunsen Burner		To heat substances
4	Tripod		To support
5	Gauze		To place an object on for example conical flask that you are going to heat.
6	Heatproof mat		To protect the desk from the heat produced by the Bunsen Burner and any spillages from the substances which are being heated
7	Evaporating basin		To evaporate the water from solutions. Leaving behind the solute.
8	Test Tube		For carrying out chemical reactions with small volumes of liquid
9	Boiling Tube		A boiling tube is used to heat substances in a Bunsen Burner
10	Measuring Cylinder		To accurately measure out volumes of liquid
11	Spatula		To move small amounts of solid powders
12	Stirring Rod		To stir solutions.
13	Thermometer		To measure the temperature of a substance
14	Tongs		To hold an move hot solids for example pieces of metal

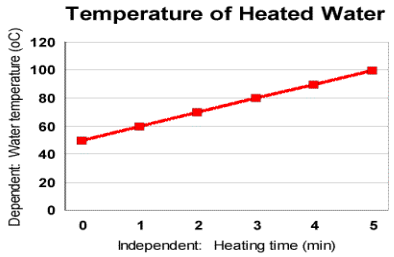
Science 7.2: Working Scientifically

7.2.49 Discontinuous data



1	Discontinuous data	Discontinuous or categoric data can only take certain values
2	Examples of discontinuous data	Eye colour and blood group,
3	How to plot discontinuous data	Bar Chart

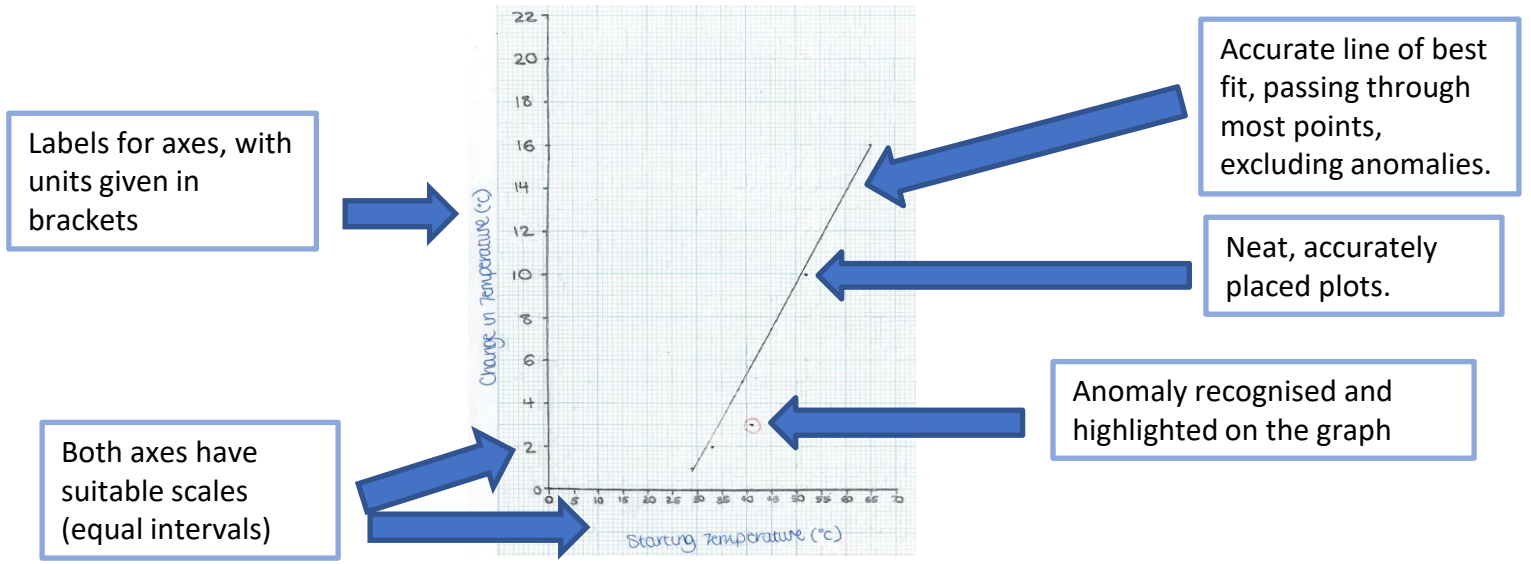
7.2.50 Continuous data



1	Continuous data	Continuous data can take any value
2	Examples of continuous data	Height or temperature.
3	How to plot continuous data	Line Graph

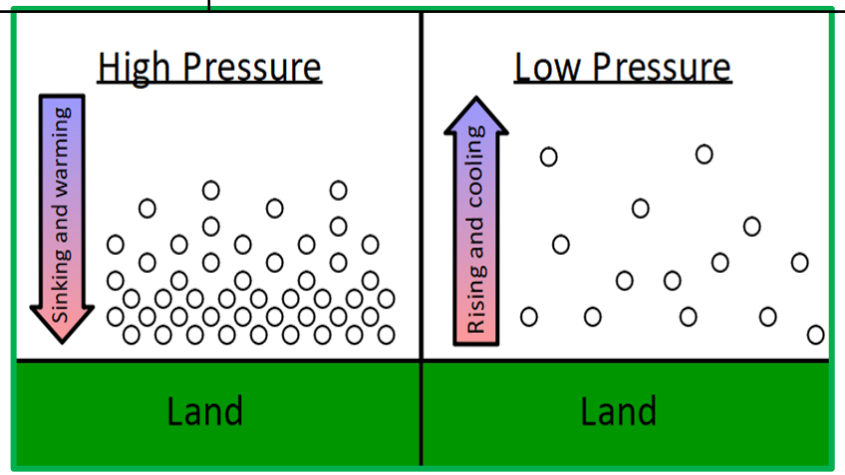
7.2.51 Drawing good line graphs

1	x Axis	Plot the dependent variable
2	y Axis	Plot the independent variable
3	Drawing the graph	• Label axis and include units • Use small precise crosses to mark your points
4	Line of best fit	Line of best fit which goes smoothly though as many points as possible (this does not have to be a straight line)
5	Anomalies	Circle anomalies and don't include them when drawing the line of best fit



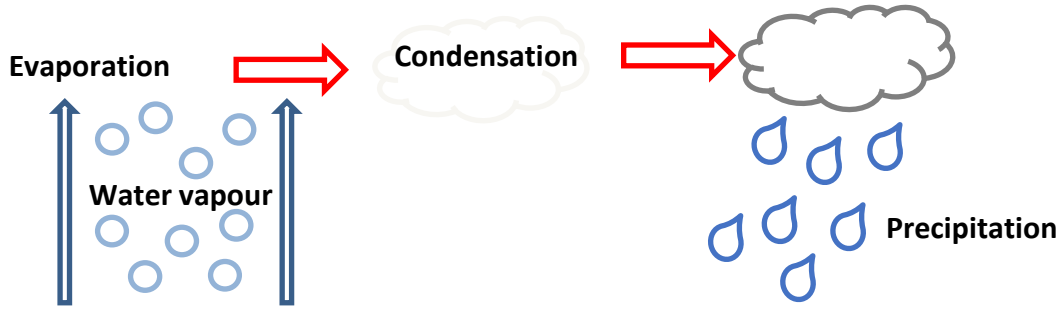
Geography: Weather and Climate

A	Key words	
1	Weather	Day to day changes in the earths atmosphere
2	Climate	Long term changes in the earths atmosphere
3	Air pressure	The amount of air in a given place.
4	Precipitation	Water falling from the atmosphere. Rain, snow, sleet and hail.
5	Global Atmospheric Circulation	The movement of air round the earth.
6	Air masses	A large volume of air that moves from one place to another.
7	Prevailing wind	The most dominant wind a place receives.
8	Depression	A weather system of low pressure.
9	Extreme weather	Weather that is out of the ordinary and causes disruption.



B	Air Pressure	
1	High pressure	Cool air sinking towards the ground
2	Low pressure	Warm air rising up from the ground
3	Weather of high pressure	Clear skies Very little precipitation Larger difference between day and night temperatures
4	Weather of low pressure	Cloudy skies High levels of precipitation Little difference between day and night temperatures

C	Precipitation	
1	Step 1	Water is heated by the sun and turns into water vapour. This is called evaporation.
2	Step 2	The water vapour rises and cools.
3	Step 3	The cool water vapour condenses to form a cloud. This is called condensation.
4	Step 4	In the cloud water droplets form and become heavy. These droplets fall to the ground as precipitation.

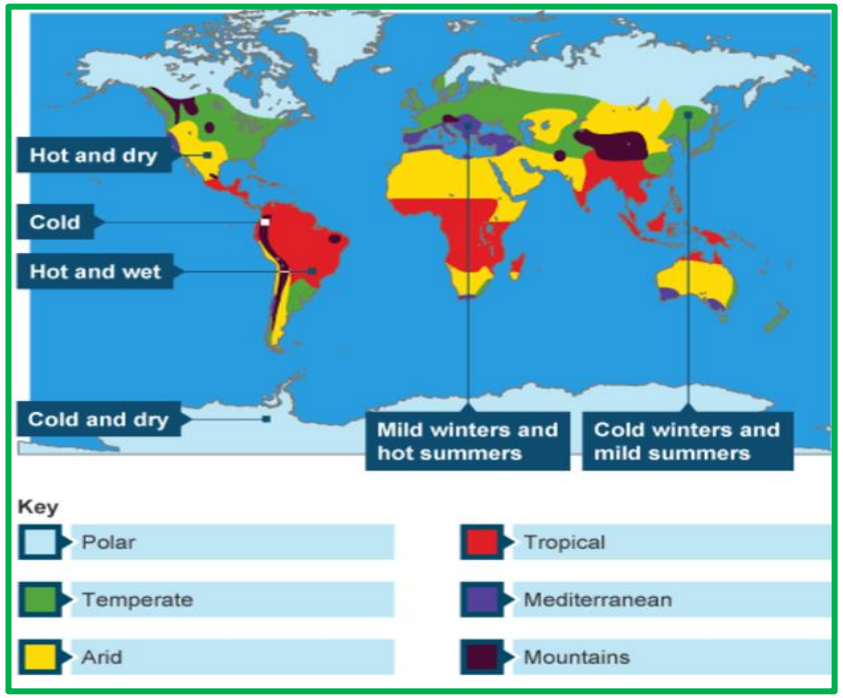


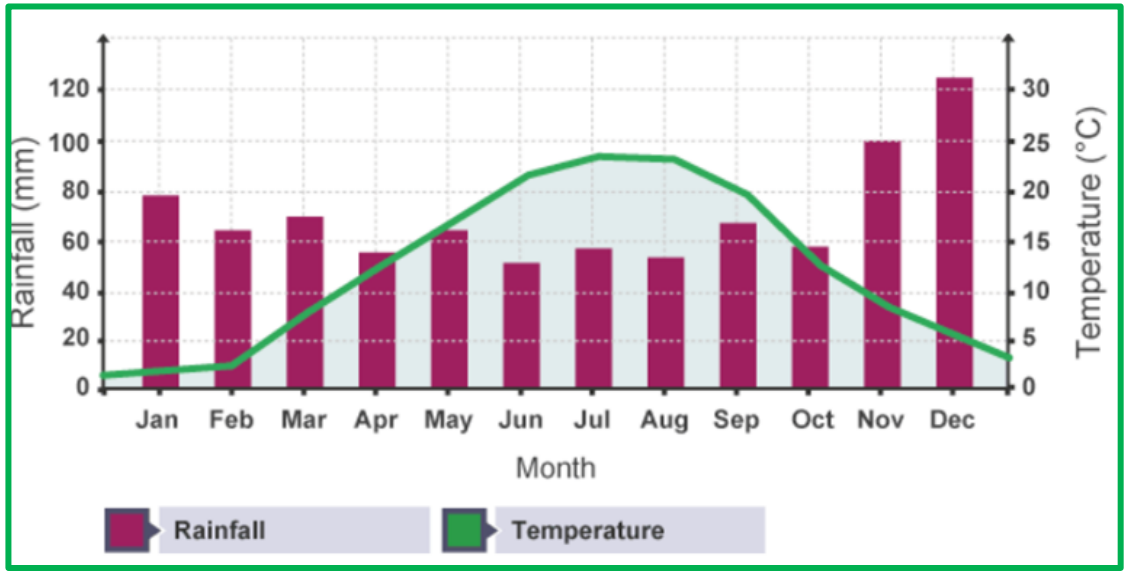
Geography: Weather and Climate

D	Global Atmospheric Circulation	
1	Step 1	Sunlight is concentrated at the equator so it is hotter here causing air to rise. This is low pressure.
2	Step 2	This air moves away from the equator. Sunlight isn't as concentrated air cools and begins to sink 30 degrees from the equator. This is high pressure.
3	Step 3	The air at 60 degrees from the equator is warmer then air at the poles so it rises here creating low pressure.
4	Step 4	At the poles it is cold so air sinks creating high pressure.

E	Global Climates	
1	Equator	The low pressure and concentrated sunlight create a warm and humid climate so tropical rainforests are located here.
2	30 degrees from the equator	The high pressure create clear skies so the climate is hot and dry. Hot deserts are located here.
3	60 degrees from the equator	The low pressure creates a wet and mild climate. Temperate forests are located here.
4	North and south pole	The low pressure and weak sunlight creates a cold and dry climate. Cold deserts are located here.

F	Climate Graphs	
1	Bar graph	The bar graph shows the average expected precipitation in an area for each month.
2	Line graph	The line graph shows the average expected temperature in an area for each month.





Geography: Weather and Climate

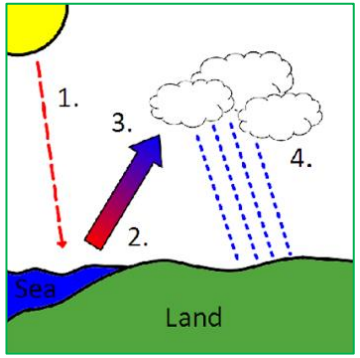
G	Air Masses	
1	Tropical Maritime	Warm, moist air from the south west.
2	Tropical continental	Warm dry air from the south
3	Polar continental	Hot dry air in the summer and cold dry air in the winter from the east
4	Arctic Maritime	Wet cold air from the north

H	Convectional Rainfall	
1	Step 1	The sun heats water causing it to evaporate.
2	Step 2	The evaporated water rises. It then cools and condenses to from clouds
3	Step 3	The clouds get too heavy with water droplets which eventually fall to the ground as precipitation

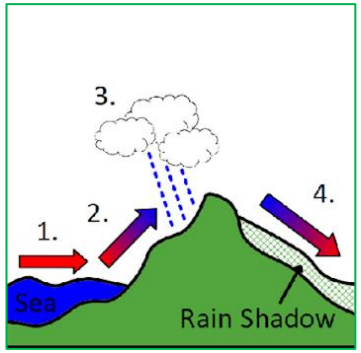
I	Relief Rainfall	
1	Step 1	Air is forced to rise due to the relief of the land (hills or mountains).
2	Step 2	As the air rises it cools and condenses to form clouds
3	Step 3	The clouds get too heavy with water droplets which eventually fall to the ground as precipitation
4	Step 4	Once the cloud moved over the hill or mountain it has less precipitation so the other side receives less. This side is called the rain shadow

J	Frontal Rainfall	
1	Step 1	Warm and clod air meet. The warm air is less dense so it rises up.
2	Step 2	As the warm air rises above the cold air it starts to cool and condense creating clouds.
3	Step 3	As the air continues to rise the clouds get too heavy with water droplets which eventually fall to the ground as precipitation

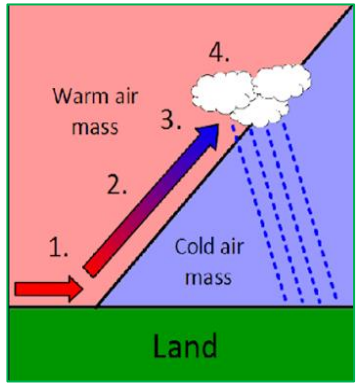
Convectional Rainfall



Relief Rainfall



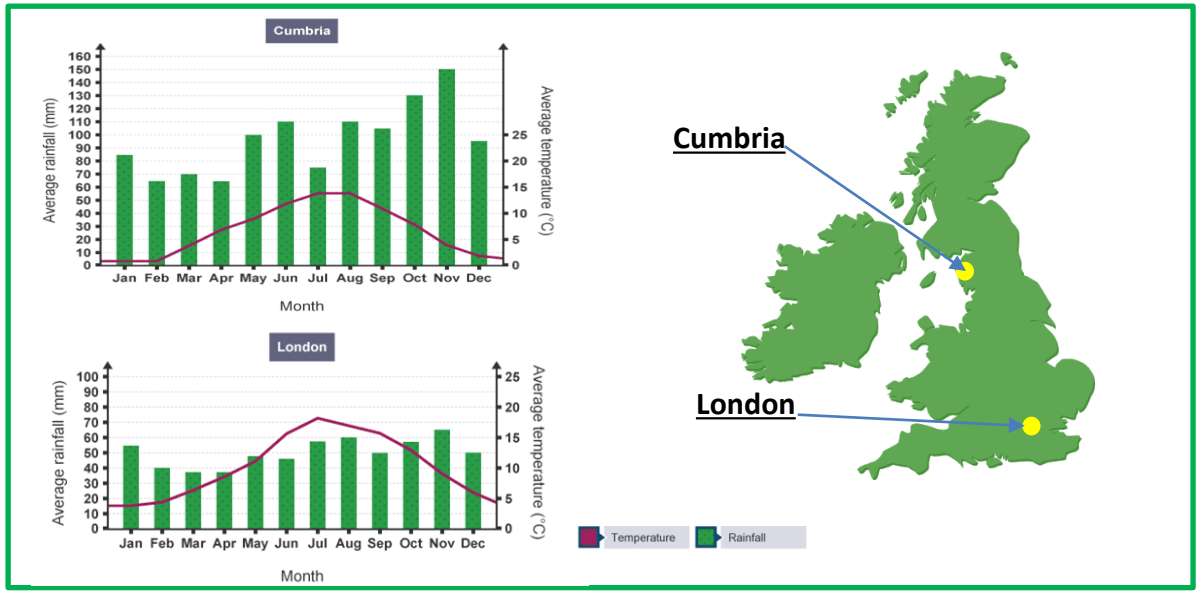
Frontal Rainfall



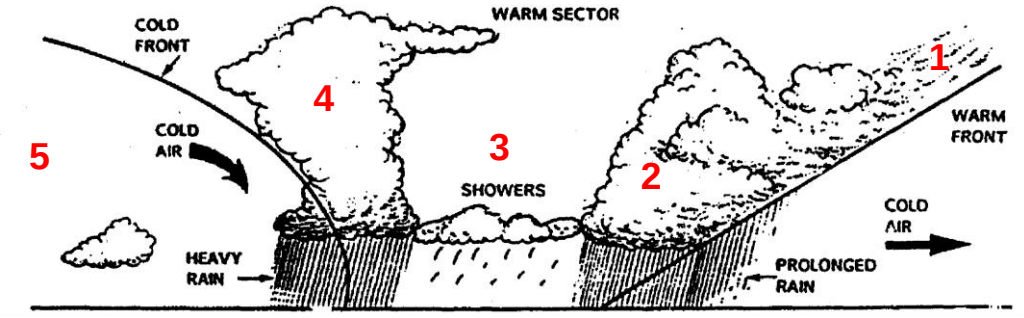
Geography: Weather and Climate

K	Factors affecting the UK's climate	
1	Temperate climate	The UK's climate is temperate. This means winters are not extremely cold and the summers are not extremely hot.
2	Latitude	In areas further from the equator sunlight is more dispersed and therefore cooler. This means in the UK the north such as Scotland is cooler than areas in the south such as London
3	Relief	Areas that are higher above sea level tend to be cooler and wetter due to relief rainfall. Therefore areas such as Wales and Scotland are wetter and cooler due to the mountainous relief
4	Air masses	The prevailing wind to the UK is from the south west. This means the UK receives warm moist air especially areas such as Cornwall.

L	Depression weather front	
1	Step 1	Warm air is forced to rise above the cool air. This air cools and condenses to form cirrus clouds.
2	Step 2	As more warm air is forced to rise larger cumulus clouds form and create prolonged rain.
3	Step 3	As the warm front passes over the warm sector comes next. This normally has showers or flat stratus clouds
4	Step 4	The cold air behind this forces air in the warm sector to rise rapidly. This creates large cumulonimbus clouds that cause heavy down pours and even thunder storms.
5	Step 5	As the cold front passes over behind are clear skies and calmer weather.



CROSS SECTION THROUGH A DEPRESSION

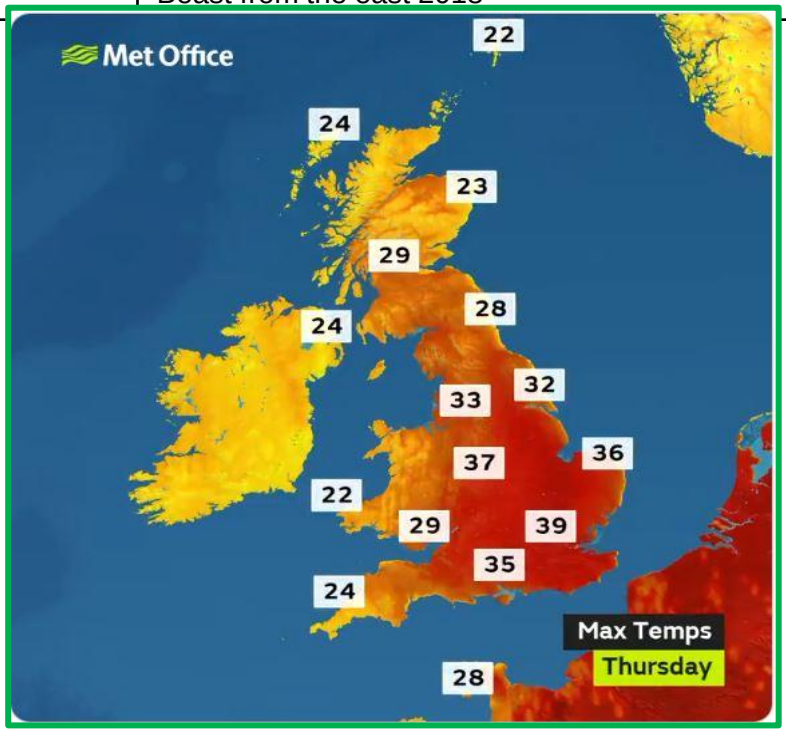


Direction the depression moves

Geography: Weather and Climate

M	Examples of extreme weather			
		Heat waves	Storms	Snow
1	Definition	Prolonged period of abnormally hot weather.	A violent disturbance of the atmosphere with strong winds and usually rain, thunder and lightening.	Abnormally heavy snowfall, usually with strong winds.
2	Possible Impacts	Deaths from heat stroke Water shortages Crop failure Increase in tourism Damage to rail lines	Deaths from drowning Travel delays Flooding Damage to powerlines	Injuries from ice Deaths from over exposure to the cold Cancelled travel Schools closed Lost income Flooding after snowmelt
3	Example	European heatwave 2003	Storm Hector 2018	Beast from the east 2018

N	Case Study of a Heatwave UK 2019	
1	Location and date	Monday 22nd July – Friday 26th July. Cambridge recorded the highest temperatures of 38.7ºC
2	Cause	An area of high pressure from northern Africa travelled north to the UK due to the Tropical Continental air mass.
3	Social impacts	- Those who had train tickets for the 25th July were allowed to use their tickets Friday 26th – Sunday 28th July instead due to cancelled trains. - The London Tube recorded temperatures of 39.4ºC. - In Bristol the high temperatures caused a major water pipe to burst leaving thousands without water on the hottest day of the year.
4	Economic impacts	- The cost of air conditioners and electric fans went up by 40%. - Rail companies had to cancel trains due to the risk of buckling lines and damage to the overhead electric wires from the heat.
5	Environmental impacts	- SEA LIFE in Blackpool had to cool the sea water for the first time to protect the animals from the high temperatures. - Police had to rescue animals that had been left in hot cars during the day.



Geography: Population

O	Global population	
1	Population	The number of people living on Earth. Currently 8 billion
2	Population density	The number of people living in an area
3	Population distribution	The spread of people across the world
4	Birth rate	Number of babies born per 1000 people per year
5	Death rate	The number of deaths per 1000 per year
6	Migration	Permanent move of people from one area to another

P	Demographic transition model				
		Birth rate	Death rate	Population	Level of development
1	Stage 1	High birth rate	High death rate	Low population	LIC – Low development
2	Stage 2	High birth rate	Rapidly decreasing death rate	Rapidly increasing population	LIC – Low development
3	Stage 3	Rapidly decreasing birth rate	Death rate continues to decrease	Population continues to increase	NEE – Increasing development
4	Stage 4	Decreasing birth rate	Slowly decreasing death rate	Population increases slowly	HIC – Highly developed
5	Stage 5	Birth rate continues to decrease	Death rate starts to increase	Population starts to decrease	HIC – Highly developed

Q	Population Pyramid	
1	Population Pyramid	A graph that shows the age and gender of a specific population
2	Demographic	The structure of the population
3	Young population	Majority of the population are aged below 15
4	Aging population	Majority of the population are aged over 60
5	Life expectancy	Average age someone can expect to live to.
6	Dependency ratio	The number of people that are economically active to those that are not economically active

Geography: Population

R	China's One Child Policy	
1	When did it start?	Introduced in 1979
2	Why did it start?	The population was increasing rapidly and there were fears of a famine
3	What were the benefits?	• Rent/own larger homes • 5-10% pay rise • Longer maternity leave • Better child care
4	What were the sanctions?	• Could be fined 4X your yearly wage • 10% cut in your pay • You would have to pay for the health care and education of your family
5	What were the positive results?	• Country did not go into famine • Kept population growth to a reasonable rate
6	What were the negative results?	• Gender imbalance as boys were preferred over girls • Aging population with fewer young to care for the elderly

S	Kerala's population control	
1	Educating women	In Kerala 85% of women are literate. Better educated women are more likely to keep their children healthy. Therefore infant mortality has dropped. This has led to a drop in birth rates.
2	Status of women	Women are no longer seen as a burden – they are regarded as an asset. Traditionally in India when a woman gets married the family have to pay money to the bridegroom's family. This is called a dowry. However, in Kerala, it is the bridegroom's family who pay a dowry to the bride's family.
3	Adult education	The Government has provided adult literacy classes in towns and villages. With improved education comes an understanding of the benefits of smaller families.
4	Health care	Improving child health through vaccination programmes has led to a decrease in infant mortality so people no longer need to have as many children.
5	Higher age of marriage	Encouraging a higher age of marriage means families tend to be smaller as children are born later.

T	Aging populations	
1	Impact on education	As there are few children born few school are needed so some may close down and teachers lose their jobs
2	Impact on health care	More pressure to provide care for the elderly. There may not be enough people to provide this
3	Impact on the economy	There will be fewer people of a working age to pay taxes that supports development of a country
4	Impact on pensions	With fewer taxes but more claiming pensions there may not be enough money for the pensions and age of retirement must increase

Geography: Population

U	France Pronatalist policies
1	cash incentive of £675 monthly (nearly the minimum wage) for a mother to stay off work for one year following the birth of her third child
2	'carte famille nombreuse' (large family card), giving large reductions on train fares
3	income tax based on the more children the less tax to pay
4	three years paid parental leave, which can be used by mothers or fathers
5	government-subsidised day care for children under the age of three, and full time school places for over threes paid for by the government

V	Migration	
1	Migration	The permanent movement of people from one area to another
2	National migration	The permanent movement of people from one area to another within a country
3	International migration	The permanent movement of people from one country to another
4	Immigrant	A person who has entered a new country to live
5	Emigrant	A person who has left a country to live elsewhere
6	Push factors	Things that make people want to leave a place
7	Pull factors	Things that make people want to live in a place

W	Advantages and disadvantages of migration	
1	Host country	The country people have moved to
2	Source country	The country people have left
3	Advantages to the host country	Diverse culture Increase in people able to work Can fill jobs others don't want to do
4	Disadvantages to the host country	Overcrowding May face discrimination Increased pressure on services e.g. health care
5	Advantages to the source country	Money sent home by migrant Decreased pressure on resources May bring home new skills
6	Disadvantages to the source country	Brain drain – Most skilled workers leave Workforce is reduced reducing taxes Mainly men who leave causing a gender imbalance

A	Key vocabulary	
1	to trade	to exchange goods
2	to migrate	to move to another place permanently
3	claim to the throne	a set of reasons why someone should be the next king
4	to rebel	to fight against the king / government
5	rebellion	a fight against the king / government
6	to cause	to make something happen
7	source	things from the past that have survived like diaries, newspapers, photographs, and physical remains
8	evidence	information that historians take from sources to support their arguments
9	century	a period of 100 years
10	decade	a period of 10 years
11	merchant	someone who makes a living by trading
12	migrant	someone who moves to another place permanently
13	empire	one place ruling lots of other places
14	noble	someone born into a powerful family
15	to invade	to take over a place using force

B	Rome and the Roman Empire key events	
1	753 BC	Romulus founded the city of Rome
2	1st and 2nd centuries BC	the Roman Empire expanded to include provinces such as Asia Minor and Africa
3	0	Jesus Christ was born
4	323 AD	Emperor Constantine made Christianity the official religion of the Roman Empire
5	410 AD	Rome was sacked by the Visigoths

C	Rome and the Roman Empire key vocabulary	
1	to found	to start something
2	historian	someone who researches and writes about the past
3	emperor	the ruler of an empire
4	Latin	the language of the Roman Empire
5	province	a place controlled by the Roman Empire
6	empire	a group of places ruled by one powerful place
7	martyr	someone who dies for their beliefs
8	pagan	non-Christian
9	Christianity	the religion of the followers of Jesus Christ
10	Christian	someone who believes in Christianity

D	Byzantine Empire key individuals	
1	Empress Theodora	the empress of the Byzantine Empire in the 6th century
2	Emperor Justinian	the emperor of the Byzantine Empire in the 6th century
3	General Belisarius	the Byzantine general who won back Rome

E	Byzantine Empire key vocabulary	
1	coronation	a formal ceremony in which a new king, queen or emperor is crowned
2	Byzantine Empire	a Christian empire that replaced the eastern Roman Empire in the 5th century
3	Constantinople	the capital city of the Byzantine Empire
4	riot	a violent uprising by a crowd of people
5	taxes	payments made by people to the government
6	polytheism	a religion with many gods
7	cathedral	a large Christian church
8	altar	the table that is the focus of worship in Christian churches
9	general	a leader of the army
10	Hagia Sophia	the great cathedral in Constantinople

F	Abbasid Empire key people	
1	Muhammad	the first prophet of Islam who was visited by an angel from Allah in Mecca in 610
2	Caliph Al-Mansur	the caliph who founded Baghdad and provided patronage for scholars
3	Maryam Al-Astrulabi	an astrolabe maker in the Abbasid Empire
4	Al-Khwarizmi	the scholar who developed new mathematical ideas such as algebra

G	Abbasid Empire key vocabulary	
1	Abbasid Empire	an Islamic empire stretching across the Middle East and North Africa
2	Baghdad	the capital city of the Abbasid Empire
3	caliph	a ruler of the Abbasid Empire
4	scholars	people whose job is to study and research new knowledge
5	Mecca	the city where Muhammad lived when he was visited by the angel
6	astrolabe	a handheld device for telling the time, working out location etc using the sun and stars
7	migrant	someone who moves to another place permanently
8	patronage	support, such as accommodation and salaries
9	translate	change the language of
10	tolerate	accept other people's beliefs

French: Knowledge Organiser 7.1: Ma vie

1	**Je voudrais me présenter**	**I would like to introduce** myself
2	**je m'appelle** Yannick et **j'ai** treize ans.	**I call myself** (I am called) Yannick and **I have** thirteen years (I am thirteen years old).
3	**Je suis** français	**I am** French
4	et **j'habite** à Nantes.	and **I live** in Nantes.
5	Pendant mon temps libre	During my free time
6	**j'adore regarder** la télé ou **voir** les films au cinéma	**I love to watch** (watching) the TV or **to see** (seeing) films at the cinema
7	et **sortir** avec mes potes.	and **to go out** (going out) with my mates.
8	Cependant**, je n'aime pas jouer** aux jeux-vidéos	However, **I don't like** playing videogames
9	parce que c'**est** barbant.	because it **is** boring.
10	Hier, **j'ai décidé d'aller** en ville.	Yesterday **I decided to go** to town.
11	Demain, **je voudrais écouter** de la musique dans ma chambre.	Tomorrow, **I would like to listen** to music in my room.
12	D'habitude, le weekend, **je fais** du skate	Usually, at the weekend, **I do** skating/ **I go** skateboarding
13	mais le weekend dernier **j'ai joué** au basket	but last weekend **I played** basketball
14	c'**était** fatigant, donc,	it **was** tiring, so,
15	ce weekend **je vais rester** chez moi et **travailler** dans le jardin,	this weekend **I am going to stay** home and **work** in the garden,
16	ce **sera** relaxant.	it **will be** relaxing.
17	Dans ma famille **il y a** cinq personnes	In my family **there are** five people
18	y compris, moi, ma mère, mon beau-père et ma demi-sœur.	including, me, my mum, my step dad and my half sister.
19	De plus, **j'ai** un chien noir et blanc	Furthermore, **I have** a black and white dog
20	qui **s'appelle** Bonbon	who **calls itself** (is called) Bonbon
21	et une tortue verte qui **s'appelle** Suki.	and a green tortoise who **calls itself** (is called) Suki.
22	**Je dirais** que maintenant **je suis** le plus bavard dans ma famille	**I would say** that now **I am** the most talkative (person) in my family
23	mais quand **j'étais** plus jeune **j'étais** plus timide.	but when **I was** younger **I was** more shy.
24	Ma mère **est** vraiment gentille et mon beau-père **est** assez drôle.	My mum **is** truly kind and my step dad **is** quite funny.

Spanish: Knowledge Organiser 7.1: Mi vida

1	**Quiero presentar**me	**I want to introduce** myself
2	**Me llamo** Marta y **tengo** trece años.	**I call myself** (I am called) Marta and **I have** thirteen years (I am thirteen years old).
3	**Soy** española	**I am** Spanish
4	y **vivo** en Valencia.	and **I live** in Valencia.
5	Mi cumpleaños **es** el veintiuno de junio.	My birthday **is** the 21st of June.
6	Durante mi tiempo libre	During my free time
7	**me encanta ver** la tele o la películas en el cine	**I love to watch** (watching) the TV or films at the cinema
8	y **salir** con mis amigos.	and **to go out** (going out) with my mates.
9	Sin embargo, **no me gusta jugar** a los videojuegos	However, **I don't like** playing videogames
10	porque **son** aburridos.	because they are boring.
11	Ayer **fui** al centro	Yesterday **I went** to the town centre.
12	Mañana, **me gustaría escuchar** música en mi dormitorio.	Tomorrow, **I would like to listen** to music in my room.
13	**Hago** equitación los fines de semana,	**I do** horse riding at the weekend,
14	pero el fin de semana pasado **jugué** al baloncesto	but last weekend **I played** basketball
15	y **fue** agotador, así que,	and it **was** tiring, so,
16	este fin de semana **voy a quedarme** en casa y **trabajar** en el jardín	this weekend **I am going to stay** home and **work** in the garden,
17	**será** relajante.	it **will be** relaxing.
18	En mi familia **hay** cinco personas	In my family **there are** five people
19	incluso mi madre, mi padrastro, mi hermanstra y yo.	including, me, my mum, my step dad and my step sister.
20	Además, **tengo** un perro negro y blanco	Furthermore, **I have** a black and white dog
21	que **se llama** Almo	who **calls itself** (is called) Almo
22	y una tortuga verde que **se llama** Brisa.	and a green tortoise who **calls itself** (is called) Brisa.
23	**Diría** que ahora **soy** la más habladora de mi familia	**I would say** that now **I am** the most talkative (person) in my family
24	pero cuando **era** más joven **era** más tímida.	but when **I was** younger **I was** more shy.
25	Mi madre **es** verdaderamente simpática y mi padrastro **es** bastante gracioso.	My mum **is** truly kind and my step dad **is** quite funny.

Region and Worldviews:Knowledge Organiser 7.2 Philosophy - Does God exist?

A	Key terms	
1	Theist	A person who belives in the existence of God
2	Agnostic	A person who thinks that whether knowing God exists is unknowable
3	Atheist	A person who does not believe in the existence of God
4	Allegory	A story, poem, or picture that can be interpreted to reveal a hidden meaning,
5	General revelation	How God reveals himself to all humans e.g. the world, the Bible, conscience
6	Special revelation	How God reveals himself to individuals e.g. through visions, miracles etc
7	Evil	A cause of suffering; the moral opposite of good.
8	Suffering	An effect of evil; undergoing pain and hardship.
9	Moral evil	Suffering caused by humans e.g. murder
10	Natural evil	Suffering caused by the natural world e.g earthquakes

B	Why do we see the world in different ways?
1	A world view is how we see the world. Our own perspectives on the world are shaped by lots of different things- how our families raised us, the friends we surround ourselves with, the experiences we have had, the culture we have been brought up in, the things we read and see, and the religions we may have encountered. People's world view is also shaped by religion.
2	Some people are atheist, some are agnostic and some are theists.
3	Humanists believe with **human welfare** and **happiness** and believe that this is **the one and only life and world** they have and so we should make the most of our lives.

C	Belief in God	
	<u>Reasons people believe in God</u>	<u>Reasons people do not believe in God</u>
1	• Religious Upbringing; Friends / Family are religious • Religious revelation e.g experienced a miracle, vision, dream • Belief in holy scripture e.g Bible, Qur'an, The Vedas • Offers comfort during sad times - a human need • Belief in life after death	• Science explains some big questions e.g. the Big Bang and evolution • Suffering and Evil exists in the world • Friends / Family aren't religious • Religious pluralism (the amount of different religions in the world). How can there be many God's, shouldn't there only be one?

Religion and Worldviews: Knowledge Organiser 7.2 Philosophy - Does God exist?

D	The big bang
1	Atheists argue that the Big bang explains the origins of the world without the need for a God .
2	14 billion years ago all matter and energy in the universe was at a point of infinite density and temperature. It then expanded rapidly.
3	Eventually stars, galaxies and planets formed including planet Earth This expansion was silent and was the beginning of time and continues to this day.
4	The Big Bang theory is supported by empirical evidence that space is expanding, including the existence of cosmic background radiation in all directions.

E	Genesis creation story
1	For many Christians, the Genesis story and the Big Bang cannot go together. The Big Bang points to a world that developed and evolved over many billions of years rather than the 6 days as said in the creation story. This is sometimes referred to as the Literalist view – ie Genesis is literally true in every way and is religious truth.
2	Other Christians see the Genesis story as an allegory. Liberalists feel that the story of Genesis is not an actual account of creation. The seven days are symbolic of time periods. Therefore they accept evolution .
3	Liberalists accept the Big Bang Theory as well as they think that God is the First cause of the Big bang. This shown in the words of Genesis, "Let there be light".

F	The cosmological Argument/First cause argument
1	St Thomas Aquinas came up with the cosmological argument to help prove the existence of God.
2	The First Cause Argument is based on a chain of logic: everything that happens is caused by something else.
3	Aquinas argued that everything in the cosmos (universe) has a cause; an event today is caused by an earlier event; which is caused by an even earlier event and so on. If you carry on tracing the chain back there are two possibilities:
4	The chain goes back forever with no end, an Infinite regress and the universe has always existed and is eternal OR You eventually reach a starting point; a first cause e.g GOD.
5	Atheist counter argument If everything has a first cause - who caused God?

Religion and Worldviews: Knowledge Organiser 7.2 Philosophy - Does God exist?

G	**The teleological argument/Design argument**
1	Some Christians believe that it is possible to prove the existence of God by observing the nature of the world we live in. The world shows signs of order and things work to achieve a purpose and the world is too beautiful and complex to have happened by chance. This they believe is evidence of design. In other words, God is the designer of an ordered, complex purposeful and beautiful world.
2	William Paley supported this argument through an analogy. He drew a similarity between the world and a old fashioned watch. He argued that if you went for a walk and stumbled across a pocket watch in a field you would know that 1. The watch could not appeared by itself 2. It has been made for the purpose of telling the time 3. A watch is pleasing to look at and so must have been to designed to be so 4. A watch is complex so it must have a designer
3	1. The world could not have appeared by itself 2. It has a purpose of creating life 3. The world is so beautiful it must have been designed to inspire awe and wonder 4. It shows evidence of complexity e.g rotation of planets, trees and the human eye. 5. Therefore the world must be designed 6. The only thing with the intelligence and power to design a world must be a God
4	The Goldilocks Principle The world is ‘ just right’, meaning that conditions on planet Earth are perfect for life to exist and flourish where everywhere else explored in the galaxy to date is not.
5	**Atheist counter arguments** Big bang explains creation Evolution explains complexity and order Beauty is subjective Evil and suffering exists so the world is not perfectly designed Even if the world was designed, why does the designer need to be a God?

Religion and Worldviews: Knowledge Organiser 7.2 Philosophy - Does God exist?

H	General revelations
1	Theists think that God has revealed himself to us as He is immanent, so that we may know him and know that he has agape love for us . They take revelations are proof of God's existence.
2	**General (or indirect) revelation** – is when God reveals himself to everyone e.g through the Natural World. 2 through conscience 3. through Scripture 4. through goodness

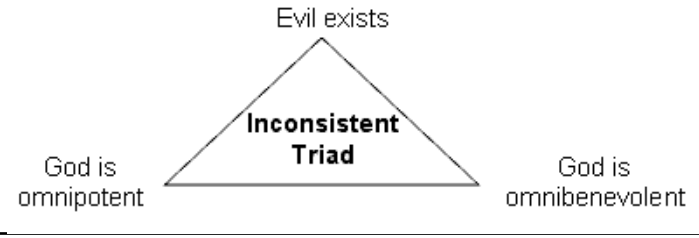
I		General revelations	
General revelation		**What is proves to a religious person**	**How a Atheist explains it**
1	Through the natural world	God can reveal Himself through the natural world. The fact that nature is so beautiful shows that God must be the creator and what is important to God can be seen in the world. Just as artists are reflected in their paintings, so God is shown in His creation. Natural revelation tells us about the nature of God for example that he is creative and omnibenevolent	The natural world - the beauty and complexity of the natural world are real, but can be explained by science, and do not reveal God or his work. Also the world is full of imperfections and cruelty so either god doesn't exist or He isn't omnibenevolent
2	Through conscience	Christians believe the voice in your head, your conscience, is God . That he is present to guide all of us to make the right choices. 'You shall hear a voice saying ' 'this is the way, walk in it'	An inner feeling we have about what is right and what is wrong has not been placed there by God, but taught to us by parents when we are very young. Not everyone has a sense of right and wrong e.g murderers.
3	Through Scripture	The bible is how Christians know God and how God reveals his omnipotence through creation: his Just nature through the decalogue and omnibenevolence through the New testament and teachings of Jesus.	The Bible was written by lots of different people at different times. It is full of contradictions. The Bible what those ancient writers believed not that God exists.
4	Through Goodness	The behaviour of some people leads believers to think that they have been guided by God. People's doing good deeds have inspired others to believe in God or live a better life e.g Mahatma Gandhi who fought peacefully for Indian independence from the British in the 1930's and 1940's.	People do good deeds because they are good people, not necessarily because they are inspired by God. Many good people are non-religious.

Religion and Worldviews: Knowledge Organiser 7.2 Philosophy - Does God exist?

J	Special revelations
1	This is called 'direct' because it is revelation direct to an individual .
2	The scriptures of some religions are regarded as the result of special revelation e.g. the Qur'an as it was revealed to Prophet Muhammad (PBUH) on the Night of Power.

K		Special revelations	
Special revelation		**What is proves to a religious person**	**How a Atheist explains it**
1	A dream	The Bible it is taught that God communicates with His people through visions and dreams 'Hear my words: If there is a prophet among you, I the LORD make myself known to him in a vision, I speak with him in a dream.'	Just because we can't yet fully explain them doesn't mean they are revelations of God. e.g visions could just be wishful thinking, mental illness, epilepsy,
2	A vision	Saul was a well known persecutor and killer of Christians. He was on his way to Damascus with a group of other men to hunt down more Christians. On his way there, he suddenly saw a great light from the sky and heard a voice saying, "Saul, Saul, why do you persecute me?" The voice belonged to Jesus. Saul was completely blinded by the light and could not see for three days. This vision led Saul to convert to Christianity and become known as Paul (St Paul) and become a leader of the Christian Church	Just because we can't yet fully explain them doesn't mean they are revelations of God. e.g visions could just be wishful thinking, mental illness, epilepsy,
3	Miracles	Many Christians believe that God is involved in people's lives a he is **immanent** and so still performs miracles In France in 1858, Bernadette, a fourteen year old girl , claimed to have seen Virgin Mary, the mother of Jesus Christ. The vision occurred in a grotto (cave) near Lourdes, France. Bernadette claims that Mary told her to drink from a spring near the cave. At first she could not see a spring but she started digging the earth; and found a spring. Christians today make a pilgrimage to Lourdes to drink or bathe in the spring and it is claimed the spring has miraculously healed 67 people since 1858.	There is no proof of miracles. They only seem to happen to people of faith.
4	Prayer	Some Christians believe that God meets with them directly, through worship or prayer through the Holy spirit. They might have a prayer answered.	Aren't always answered.

Religion and Worldviews: Knowledge Organiser 7.2 Philosophy - Does God exist?

L	**Evil and Suffering**
1	Evil causes suffering. There are two types of evil; Natural (evil caused by nature) and Moral Evil (evil caused by humans)
2	The problem of Evil is an argument often used by atheists in an attempt to prove that the Christian God doesn't exist.
3	**John Mackie Inconsistent Triad argument** If God is **omnipotent** (all-powerful) then he **COULD** remove evil from the world, if God is omni**benevolent** (all-loving) then he WOULD want to remove evil from the world. Yet, evil exists in the form of **natural and moral evil**. Therefore, the Christian God either does not exist or is not omnipotent or omnibenevolent . 

M	**Evil and Suffering - Christians Counter arguments**
1	Evil is the result of human **FREE WILL**. Humans use their free will to break God's rules e.g the Decalogue and willfully turn against him. Humans are the cause of evil not God.
2	Augustine argues that the **DEVIL** is responsible for evil not God. "God saw all that he had made, and it was very good" .The Fall (the story of Adam and Eve) proves this E.G In Genesis the devil, disguised as a snake, tempts Eve to eat the forbidden fruit from the tree of knowledge in the Garden of Eden.
3	Irenaeus argued that evil and suffering is for a purpose e.g that evil is 'soul making'**.** God did create evil so that humans can develop God like qualities like **compassion**, bravery and kindness. Also without experiencing bad can you appreciate Good.

PSHE support links

Useful telephone numbers

- **NSPCC (Childline) confidential helpline for children and young people:** 0800 1111 (24 hrs)
- **Family Lives**: 0808 800 2222
- **The Mix**: 0800 8084994
- **CAMHS CRISIS LINE** 0300 3031320
- **Avon/ Wiltshire Mental Health Service Crisis Line**: 0800 9531919 (This is all day every day!)
- **24hr Domestic Violence Helpline:** 0808 2000 247
- **National sexual health helpline:** 0300 123 7123
- **YoungMinds:** https://youngminds.org.uk, 0808 802 5544 (Weekdays 9.30am – 4pm), Parent Email: parents@youngminds.org.uk

Me and my Identity

- http://www.mind.org.uk/information-support/guides-to-support-and services/children-and-young-people/#.Wt259pWG_IU
- http://www.unicef.org.uk/what-we-do/un-convention-child-rights
- http://www.equalityhumanrights.com/en

Peer Pressure and belonging

- http://youngpeople.nyas.net/
- http://thenayj.org.uk/

Online Safety

- http://www.childline.org.uk/info-advice/bullying-abuse-safety/online-mobile-safety/sexting
- ttp://www.childline.org.uk/info-advice/bullying-abuse-safety/online-mobile-safety/staying-safe-online/
- http://www.thinkuknow.co.uk/
- www.gov.uk/report-terrorism
- www.iwf.org.uk
- www.saferinternet.org.uk
- www.ceop.police.uk/safety-centre
- https://www.nspcc.org.uk/what-is-child-abuse/types-of-abuse/online-abuse/
- https://www.gloucestershire.police.uk/advice/advice-and-information/

Stereotypes, prejudice, discrimination, Hate crimes,

- http://unicefstories.org/2016/10/20/breaking-gender-stereotypes-a-young-girl-reminds-women-and-girls-of-their-rights
- http://www.amnesty.org/en/latest/education/2016/03/three-education-activities-for-young-people-to-challenge-discrimination
- https://www.gov.uk/guidance/equality-act-2010-guidance
- http://www.equalityhumanrights.com/en/equality-act/protected-characteristics
- https://www.stonewall.org.uk/lgbt-britain-hate-crime-and-discrimination

Human rights, Social Justice and Social Inequality

- http://unicef.org.uk/what-we-do/un-convention-child-rights
- http://www.libertyhumanrights.org.uk/
- http://www.un.org/en/sections/issues-depth/human-rights
- http://www.equalityhumanrights.com/en/human-rights/what-are-human-rights
- https://ff.hrw.org/london
- http://www.gov.uk/guidance/equality-act-2010-guidance

Support for Bullying

- https://www.nspcc.org.uk/
- https://www.kidscape.org.uk/
- https://www.childline.org.uk/
- http://unicef.org.uk/what-we-do/un-convention-child-rights
- www.anti-bullyingalliance.org.uk
- www.disrespectnobody.co.uk

Government structure, Law and the judiciary

- https://assets-learning.parliament.uk/uploads/2019/12/KS3-Booklet-Get-to-know-your-UK-Parliament.pdf
- https://www.parliament.uk/
- https://www.judiciary.uk/

PSHE support links

Healthy and Puberty

- http://www.nhs.uk/pages/home.aspx
- https://www.nhs.uk/live-well/
- http://www.talktofrank.com/
- www.healthforteens.co.uk/growing-up/puberty
- www.nhs.uk/conditions/ivf

LGBTQ+

- https://www.stonewall.org.uk/
- www.galop.org.uk
- https://www.childline.org.uk/info-advice/your-feelings/sexual-identity/sexual-orientation/

Bereavement, grief and Loss

- http://www.sueryder.org/how-we-can-help/someone-close-to-me-has-died/advice-and-support/supporting-young-people-with-grief
- http://www.nhs.uk/conditions/stress-anxiety-depression/bereavement-and-young-people
- https://www.childbereavementuk.org/

First/Emergency Aid

- www.redcross.org.uk
- www.get-licensed.co.uk
- www.emergency-live.com

Gambling and Finances

- www.begambleaware.org/NGTS.html
- https://www.moneyadviceservice.org.uk/en/articles/how-to-help-teenagers-manage-their-money
- www.citizensadvice.org.uk
- https://natwest.mymoneysense.com

Support for mental health and coping strategies and managing stress and anxiety

- http://www.youngminds.org.uk/
- www.kooth.com
- https://www.otrbristol.org.uk
- http://www.mentalhealth.org.uk/your-mental-health/getting-help
- http://www.nhs.uk/conditions/stress-anxiety-depression/reduce-stress
- https://www.gov.uk/government/publications/children-and-young-peoples-mental-health-peer-support
- http://www.youngpeopleshealth.org.uk/wp-content/uploads/2016/03/resilience-resource-15-march-version.pdf
- www.themix.org.uk
- http://www.mind.org.uk/
- http://www.mentalhealth.org.uk/
- http://www.centreformentalhealth.org.uk/
- http://www.childrenssociety.org.uk/
- www.getselfhelp.co.uk

PSHE support links

Support for unhealthy/abusive relationships:

Child Sexual Exploitation, Child Criminal Exploitation, Coercive control, Grooming, Radicalisation, and FGM

- https://www.nspcc.org.uk/what-is-child-abuse/types-of-abuse/grooming/
- https://www.nspcc.org.uk/what-you-can-do/report-abuse/dedicated-helplines/protecting-children-from-radicalisation/
- https://www.childrenssociety.org.uk/what-we-do/our-work/help-us-stop-child-sexual-exploitation-cse
- https://www.nspcc.org.uk/what-is-child-abuse/types-of-abuse/child-sexual-abuse
- http://www.womensaid.org.uk/information-support/what-is-domestic-abuse/coercive-control
- https://www.nspcc.org.uk/preventing-abuse/keeping-children-safe/staying-safe-away-from-home/gangs-young-people/
- https://karmanirvana.org.uk/
- www.nationaldomesticbiolencehelpline.org.uk
- http://www.actionaid.org.uk/about-us/what-we-do/violence-against-women-and-girls vawg
- www.childline.org.uk/info-advice/bullying-abuse-safety/abuse-safety/female-circumcision-fgm-cutting

Consent, law and sexual Health

- http://www.consentiseverything.com/
- https://www.healthforteens.co.uk/sexual-health
- https://www.nhs.uk/live-well/sexual-health/where-can-i-get-sexual-health-advice-now/
- www.nhs.uk/live-well/sexual-health
- https://www.nhs.uk/conditions/sexually-transmitted-infections-stis
- http://www.eufic.org/en/healthy-living/article/tips-for-a-healthier-you-video
- http://www.nspcc.org.uk/
- www.nhs/conditions/contraception
- https://www.thinkuknow.co.uk/
- https://lawstuff.org.uk/at-what-age-can-i/
- https://parentzone.org.uk/article/how-old-does-your-child-have-be
- https://fullfact.org/law/legal-age-limits
- https://www.brook.org.uk/
- https://www.nhs.uk/live-well/sexual-health/are-you-ready-for-sex/https://www.childline.org.uk/info-advice/friends-relationships-sex/sex-relationships/healthy-unhealthy-relationships/
- https://www.familylives.org.uk/advice/teenagers/sex/healthy-relationships/
- https://www.relate.org.uk/relationship-help/help-young-adults

Drugs, substances and the law

www.talktofrank.com
http://www.nhs.uk/pages/home.aspx
https://www.nhs.uk/live-well/
http://www.drinkaware.co.uk/
http://www.askthe.police.uk/content/@1.htm