Achieving Greatness Together

GreatSankey High School

Knowledge Organiser
Summer Term
Year 8

GROWTH ✿ RESPECT ✿ EXCELLENCE ✿ ASPIRATION ✿ TEAMWORK

A Knowledge Rich Curriculum at Great Sankey High School

Research around memory suggests that if knowledge is studied once and not revisited or revised, it is not stored in the long-term memory. This means that after one lesson, or revising for one test, the knowledge will not be retained unless it is studied again. To ensure that knowledge is embedded in the long term memory it must be revisited frequently. Ensuring knowledge is embedded aids understanding, and in turn makes future learning more successful. To quote Daniel Willingham's learning theory,

"Thinking well requires factual knowledge that is stored in our long-term memory"

As part of home learning, students should be revising what they have been taught recently but also content they were taught previously. Therefore, as part of our strategy to embed learning over time we have developed knowledge organisers across years 7, 8 and 9. These will provide key content and knowledge allowing students to pre-learn and re-learn, a vital part of processing all the information required to be successful. This knowledge will form the back-bone of assessments in school.

How to use your knowledge organiser

Knowledge organisers will be used in subject lessons, homework activities and form time and therefore you need to bring your knowledge organiser to school every day.
Ensuring that knowledge is retained into your long-term memory and you are ready for tests takes work!

READ → **COVER** → **WRITE** → **CHECK**

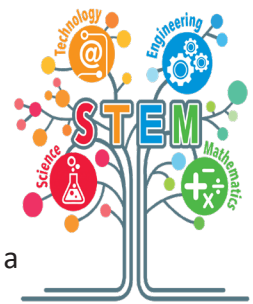
To encourage students to build good study habits, students will be assigned homework quizzes on a week A through Class Charts and Teams. Students will be expected to use revision strategies such as read, cover, write, check to learn key knowledge and will then complete the quizzes to demonstrate their learning. Completion of these quizzes is an essential homework activity and will be closely monitored by the pastoral team.

Other methods that you may wish to try at home are listed below:

- Create mind maps.
- Create flashcards.
- Get sticky with your learning: write out key points from the KO as you read over it on post-it notes.
- Write your own basic recall quizzing questions around the keywords, definitions and key facts that you need to know. Test yourself with these questions and then leave it overnight to answer them the next day.
- Write your own challenging questions using the following command words – explain, compare, evaluate. Then create a model answer for these questions.
- Put the key words from your KO into new sentences.
- Make mnemonics to remember the order of particular concepts.
- Draw a comic strip, storyboard or a timeline describing any series of events that have a chronological order.
- Write yourself or a partner some quiz questions. Quiz each other or swop your questions to see if you can answer each other's questions.
- Think about the big picture – why is knowing specific information important to you/other people/society/companies/science/technology? The more links that you can make, the more meaningful you make your learning and the more likely it is that you will remember it. Think about the big picture – are there any links in the content on your KO to anything that you have watched on TV, read about or heard in the news?
- Give yourself spelling tests.
- Definition tests.
- Draw diagrams of key processes or theories.
- Draw images and annotate/label them with extra information.
- Create fact files.
- Create flowcharts for descriptions or explanations that have a chronological order.
- Summarise in your own words each section.
- Get your parents/carers to test you.
- Pick out key words and write definitions.
- Pre-learning (read a section of your knowledge organiser prior to the lesson).
- Learn key quotes (if applicable). Consider what you may say about these quotes e.g. what the author is trying to make you think/feel, their choice of language, what can be inferred from it.
- Write a letter/blog/article to someone explaining a key idea or concept.
- Prepare to overcome any hurdles: write down any questions or any areas of the KO that you feel you need to speak to your teacher about.
- Use the guidance that may have been given with a specific KO to help you learn the information and use it.

"Don't practise until you get it right. Practise until you can't get it wrong."

Portable Knowledge in STEM at KS3



STEM stands for Science, Technology, Engineering and Maths, and it is important that you can see connections between each of these subjects. In the real world there are very few challenges that only require one set of skills. For example, you wouldn't be able to design a new app, video game or computer program without an understanding of all of the STEM concepts. This section of the knowledge organiser will show you how different STEM subjects have things in common, including examples of how you might use them, and how some things may actually appear slightly different from one subject to the next. As Geography is a Natural Science we can include that too.

EXAMPLE	SCIENCE	TECHNOLOGY & ENGINEERING	MATHS	GEOGRAPHY
Tally chart	Can be used to record the number of pupils in different height ranges in biology.	Can be used when choosing a final design choice from a selection of draft designs.	Can be used to record the number of pupils with different eye colours, or what their favourite colour, favourite animal or favourite subject is.	Can be used to used record the number of pedestrian or cars that pass a certain place.
Pie chart	Can be used to display the number of pupils with different eye colours in biology.	Can be used to display results of a tally chart.	Can be used to display the number of pupils who travel to school in different way.	Can be used to display the use of renewable and non-renewable energy resources.
Bar chart	Can be used to display the number of people with different blood groups in biology.	Can be used to display results of a tally chart.	Can be used to display the number of pupils with a different favourite sweet.	In geography the term histogram and bar chart are interchangeable and are used to display the percentage of forest lost in a range of countries for example.
Histogram	This is similar to a bar chart, but the bars touch each other and they represent continuous data that is grouped, for example number of pupils in different height ranges in biology.	x	Can be used to display number of pupils in different height ranges.	
Line graph	Can be used to display the time taken for salt to dissolve at different temperatures in chemistry.	Can be used to represent trend data during research pieces.	In maths, these are sometimes called scatter graphs or timeseries graphs. They can be used to display house prices or life expectancy.	Can be used to display temperatures of each month in different countries or rainfall in mm.
Line of best fit	In biology a line of best fit can be point to point, but in chemistry they are most often a straight line. In all 3 sciences they could be a curve depending on distribution of the points. For example: the extension of a spring in physics.	x	In maths, you might be asked to add a line of best fit to a scatter graph. It is always a straight line drawn with a ruler and can be used on graphs to show correlation between hours of revision and score in test or temperature and number of ice creams sold.	x

Portable Knowledge in STEM at KS3

Hopefully this section of the knowledge organiser will help you spot where things crossover from one STEM subject to another as you move from lesson to lesson. REMEMBER some things are exactly the same, some are very similar but might be called different things, and some things are different altogether! ……..and don't forget STEM stands for **Science, Technology, Engineering and Maths**

EXAMPLE	SCIENCE	TECHNOLOGY & ENGINEERING	MATHS	GEOGRAPHY
Range	Range around a mean can be used with data for heart rate after exercise in Biology, amount of hydrogen gas produced in a chemical reaction in Chemistry and number of times a ball bounces in Physics.	x	Range around a mean can be used with data for heights, goals scored in a football match . In maths, this includes looking at a table for ungrouped and grouped data.	Range when looking at rainfall and temperature data for different locations. Used when using development indicators such as literacy rate, life expectancy etc.
Mean, Median and Mode	Mean, median and mode can be used to analyse any sets of data with a range of results.	x	Mean, median and mode can be used to analyse any sets of data with a range of results.	Mean, median and mode can be used to analyse any sets of data with a range of results.
Continuous data	This is where you have any value in your data. In science an example would be length.	x	This is where you have any value in your data. In maths an example would be length.	This is where you have any value in your data. An example would be mm of rainfall.
Discrete data	In science this is sometimes called discontinuous data. An example would be blood group or eye colour in Biology.	x	Sometimes called primary or secondary data. Examples include age, shoe size, result from rolling a dice or the number of pets people have.	x
Using co-ordinates	x	x	4 and 6 figure grid references are used when plotting in 4 quadrants and used in transformations.	Both 4 and 6 figure references are used across all topics in geography to locate places from a map.
Taking measurements that are accurate and precise	Accurate data is close to the true value and precise data gives similar results if you repeat the measurement. In science there are far too many examples to mention!	Used when marking out materials prior to cutting and quality during checking when manufacturing a component.	4 and 6 figure references used across all topics to locate places from a map.	Measurements and accuracy are very important when studying map skills, especially when looking at scale and distance.

Tier 2 Vocabulary

Year 8 Term 3		Definition	Contextual Sentence
1	**access**	The means to approach or enter a place.	Access to the gym is restricted to school hours.
2	**annual**	Happening once every year.	The annual concert will take place on Friday.
3	**attitudes**	A settled way of thinking or feeling about something.	Attitudes towards child labour changed gradually.
4	**attributed**	Regard something as being caused by.	They attributed the firm's success to the efforts of the managing director.
5	**civil**	Relating to ordinary citizens and their concerns.	The civil rights movement helped to change people's attitudes.
6	**code**	A system of words, letters, figures, or symbols used to represent others, especially for the purposes of secrecy.	The Enigma Code was used in World War 2.
7	**concentration**	The action of focusing all one's attention.	Concentration was needed to succeed.
8	**conference**	A formal meeting of people with a shared interest.	Students will be attending the conference in June.
9	**cycle**	A series of events that are regularly repeated in the same order.	Describe the life cycle of a butterfly.
10	**debate**	A formal discussion on a particular subject in a meeting.	He took part in the debate on fox hunting.
11	**domestic**	Relating to the running of a home or to family relations.	In previous centuries, women were expected to do all of the domestic chores.
12	**emerged**	To move out of or away from something / to become visible.	The river emerged from the forest.
13	**ethnic**	Relating to a population subgroup (within a larger group) with a common cultural tradition.	The country is home to several different ethnic groups.
14	**goals**	The object of a person's ambition or effort; an aim or desired result	Our goals are to achieve good grades.
15	**granted** (2 definitions)	It is true. Given / allowed.	Granted, it has stopped raining but the pitch may still be waterlogged. He was granted permission to go on the trip.
16	**hence**	As a consequence; for this reason	Car use has reduced and hence air pollution has decreased.
17	**imposed**	To force an unwelcome decision on someone.	Military rule was imposed in the country.
18	**integration**	The process of combining.	Integration is important for the community.
19	**internal**	Inside	The tube had an internal diameter of 1cm.
20	**job**	A paid position of regular employment; A task or piece of work	The company created 200 jobs this year. It was a tough job to complete the homework.
21	**mechanism** (2 definitions)	A system of parts working together in a machine. A natural or established process by which something takes place.	The clock had a complex mechanism. Describe the mechanism of reproduction in plants

22	**occupational**	Relating to a job or profession.	Burns from hot objects can be an occupational hazard in a busy kitchen.
23	**parameters**	A limit or boundary which defines the scope of a particular process.	The size of your artwork must be within the parameters of the competition.
24	**phase**	A distinct stage in a series of events or a process of change or development.	The diagram shows the phases of the moon.
25	**principal**	The first in order of importance, the main	The principal cause of the failure of the expedition was poor planning.
26	**professional**	Working in a particular activity as your main paid job rather than as a hobby.	He hoped to be a professional footballer.
27	**project** (2 definitions)	Something that is carefully planned to achieve a particular aim. To throw or cause to move forward or outward.	Complete the project on the life of Henry VIII. Seeds are projected from the tree.
28	**promote** (2 definitions)	To support or actively encourage. To raise someone to a higher position or rank.	The poster was to promote the bake sale. Who was he going to promote to captain for the match?
29	**regime**	A system or ordered way of doing things.	The army has a very tough physical regime.
30	**retained**	To continue to have something; keep possession of	She retained the position of captain for the next match.
31	**series**	A number of events / objects of a similar kind coming one after another.	The book was part of a series of six adventures.

32	**status** (2 definitions)	Position in society The situation at a particular time during a process.	Land owners had a high status in the country. Here is an update on the status of the building work.
33	**statistics**	Collecting and analysing data (numbers) in large quantities.	The statistics show that the crime rate has increased.
34	**stress** (2 definitions)	Particular emphasis or importance. A state of mental or emotional strain or tension.	We must stress that phones have to be turned off in school. He is obviously under a lot of stress at the moment.
35	**undertaken**	To promise to do a particular thing.	We have undertaken to provide more after school clubs this term.
36	**academic**	Relating to education.	The academic requirements are high.
37	**adjustment**	A small movement made to achieve a desired fit, appearance, or result.	There will be an adjustment made to the time of the assembly.
38	**alter**	To make changes	You will have to alter the recipe if you are vegan.
39	**amendment**	A small change or something added which will improve something.	There will be a new amendment to the school uniform policy.
40	**aware**	To know or see something	You must be aware of the hazards in the workshop.
41	**capacity**	The maximum amount that something can contain or produce.	We now have increased capacity in the dining room.

The Merchant of Venice

UNDERSTANDING THE CONTEXT

Jews in Britain

Anti-Semitism – the hatred of Jews, or of their religion

In 1290, King Edward I expelled anyone of the Jewish faith from England. Whilst some converted to Christianity to stay in England, most of the Jewish population moved out of the country. As a result, when Shakespeare wrote this play in 1596, there were few to no Jews living in London.

Due to the irrational fear of religious difference, and the general prevalence of racist ideology, **anti-Semitism** was widespread in early modern England. As a result of this unfounded hatred, many plays featured despicable Jewish characters.

In 1590, Christopher Marlowe's 'The Jew of Malta,' which was a resounding success and played on this vehement hatred and prejudice against Jews – Barabas, the eponymous Jew, poisons drinking water and is an outright villain. Shakespeare's portrayal of Shylock is, in contrast, far more sympathetic.

Jews in Venice, Italy

The original audience of The Merchant of Venice would not know the geography of Italy, but they would have known that Venice was a wealthy trading city of businessmen and money.

Jews were not allowed to own land, but in 1516, they created a settlement (and pay rent) in Ghetto Nuova – a small dirty island that became the world's first ghetto. They were permitted to leave during the day but locked in at night. Out of the ghetto, they had to wear distinguishing clothing.

Usury/moneylending

Jews were only allowed certain occupations that were deemed 'un-Christian'. In Venice, Jews were only allowed to work in pawn shops, act as moneylenders, work the Hebrew printing press, trade in textiles or practice medicine. One of the reasons Jews were disliked was they practised **usury**, often because this was one of the few professions open to them.

Usury is the action or practice of lending money at unreasonably high rates of interest. As result of usury, Jews were seen as being increasingly greedy and were therefore immensely disliked. In the 16th century, the word 'Jew' had come to be applied to hard-hearted, unscrupulous moneylenders, even if the people referred to were not Jewish.

Renaissance thought on relationships

The Renaissance brought with it a revival of Ancient Greek thought about the types of love.

The courtly lover

Playing the courtly lover was very popular in the Renaissance and involved the pose of a tortured lover who experienced unrequited love. He would praise and idealise his beloved.

WOMEN in Elizabethan times

Women were seen as inferior within Shakespearian England. Often women were objectified for their beauty or wealth. They had limited power and were unable to own land or property. They were expected to fulfil a maternal role within society.

A Patriarchal society

A patriarchal society consists of a male-dominated power structure throughout organised society and in individual relationships. Power is related to privilege. In a system in which men have more power than women, men have some level of privilege to which women are not entitled. For example, the father was the ruler of the household, and women had no rights in law. Daughters were regarded as 'property' and often married off very young, as a way to join wealthy and powerful families.

3. THE CHARACTERS

Shylock

Shylock is a moneylender who lives in Venice. He is Jewish and receives a great deal of abuse for his religion. Shylock lends money to Antonio on the condition that if Antonio cannot pay him back by the appointed time then Shylock will cut away a pound of Antonio's flesh. As the play progresses, Shylock becomes completely fixated on his 'bond' with Antonio and desperate to claim revenge on the merchant, who has treated him badly in the past.

Antonio

Antonio is the Venetian merchant described in the title of the play. He is extremely well liked by most characters apart from Shylock. Although Antonio is inexplicably sad at the start of the play, he is in a relatively secure position. Although he has no readily available cash, he has plenty of ships carrying fortunes at sea. As the play goes on his position becomes increasingly precarious as he has entered into a dangerous deal with Shylock, which nearly costs him his life.

Portia

Portia is a wealthy heiress who lives in Belmont. Her father has died and in his will wrote that anyone wanting to marry his daughter must succeed in a specially designed challenge. Suitors have to choose between three caskets (either gold, silver or lead), guessing which one holds Portia's portrait. Portia is not at all keen on most of the men who have tried to win her, however she does fall in love with Bassanio. Ultimately, she plays an essential role in ensuring that Antonio's life is saved, as she prevents Shylock from claiming his 'pound of flesh'.

Bassanio

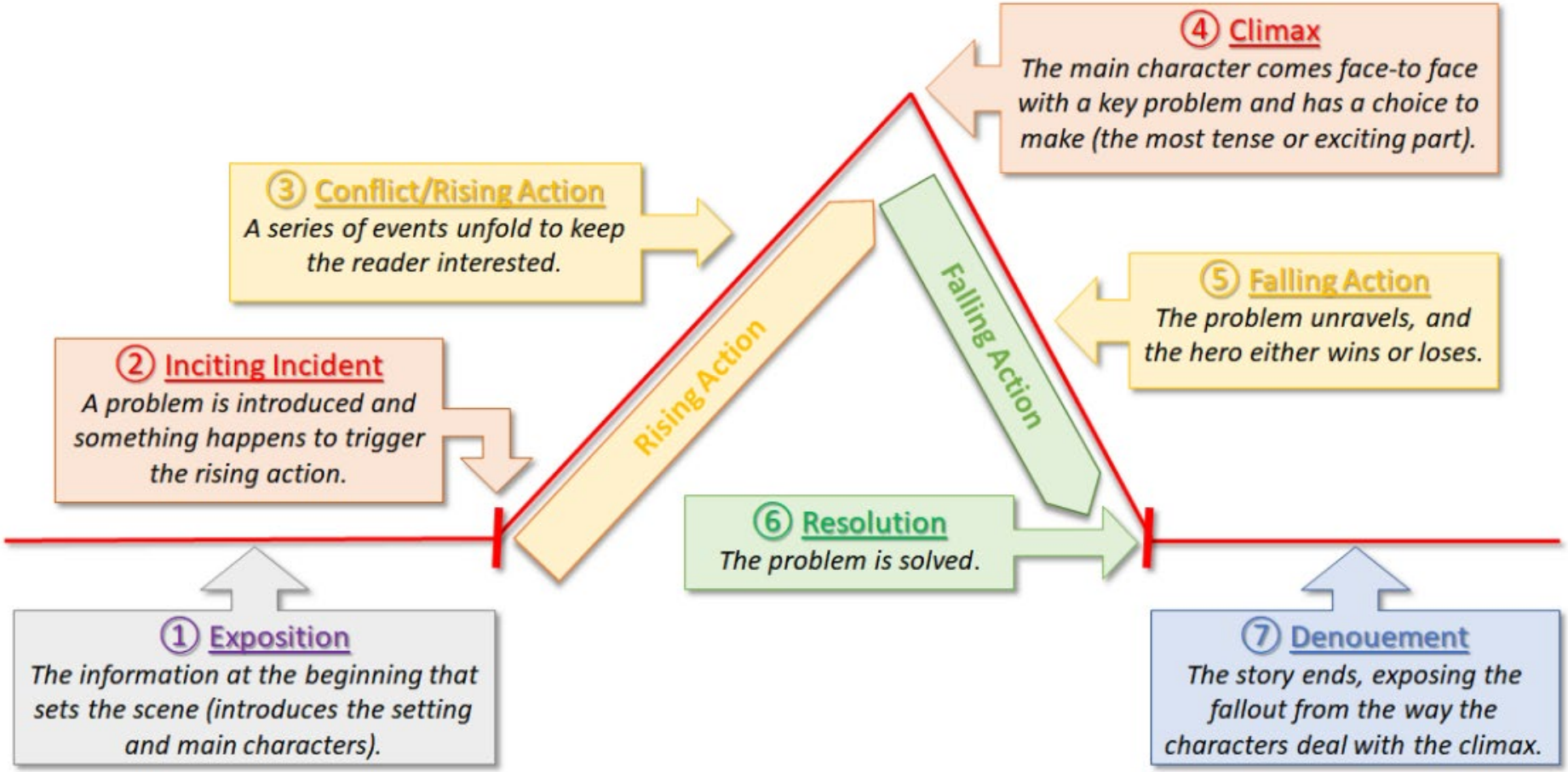
Bassanio is a young Venetian gentleman who is a close friend of Antonio's and in love with Portia. In order to woo Portia, he needs money and so asks Antonio for a loan. It is this request which results in Antonio becoming 'bound' to Shylock and in danger of losing his life.

Jessica

Jessica is Shylock's daughter and at the start of the play is living in his house. She is in love with a Christian, Lorenzo. Jessica knows that her father will never give his consent for her to marry a Christian and so she plans to secretly escape one night in order to run away with Lorenzo, marry him and convert from Judaism to Christianity

Literary Term	Definition	Contextual sentence
Soliloquy	A speech in a play which the character speaks their thoughts to themselves or directly to the audience.	The play begins with a **soliloquy** from the main character.
Dramatic Irony	a literary technique, originally used in Greek tragedy, by which the full significance of a character's words or actions is clear to the audience or reader although unknown to the character.	In the court scene (A4 S1), the audience knows that the lawyer is actually Portia, but the other characters do not.
Hyperbole	Overstatement or exaggeration	"Why, that's the lady**; all the world desires her**"
Foreshadowing	A warning or indication of a future event.	Shakespeare foreshadows Antonio's financial ruin in the first scene.

Freytag's Pyramid of Dramatic Structure



19th Century Fiction

The Victorian Era

It was the time of the world's first Industrial Revolution, political reform and social change, Charles Dickens and Charles Darwin, a railway boom and the first telephone and telegraph. The industrial Revolution was a time when the manufacturing of goods moved from small shops and homes to large factories. But the Victorian Era—the 63-year period from 1837-1901 that marked the reign of England's Queen Victoria—also saw a demise of rural life as cities rapidly grew and expanded, as a result of The Industrial Revolution. The result of this movement was the development of horrifying slums and cramped row housing in the overcrowded cities. The middle class was essentially non-existent, but the Industrial Revolution meant that the balance of power shifted from the aristocracy, whose position and wealth was based on land, to the newly rich business leaders.

Queen Victoria, who ascended the throne at age 18 following the death of her uncle, William IV, is

What is non-fiction writing?

A non-fiction text deals with real-life events and issues and often contains facts and information. Non-fiction is a broad genre that might include:

- Histories
- Biographies
- Newspaper reports
- Diaries
- Letters,
- Information leaflets
- Articles.

Non-fiction writers make language choices to present their viewpoint, influence the reader and create a particular effect.

Motifs

A motif is a recurring image or ideas in a text.

Motifs are repeated throughout the story. In fact, "motif" is a French word that translates to "pattern." If you notice the same object, phrase, or symbol multiple times throughout the story, it's probably a motif.

Motifs point to a larger theme or concept. Oftentimes, a motif will recur in similar situations throughout the story. It can also be used to generate a mood, create symbolism, and engage with readers.

Motifs work by appearing during key moments throughout the story.

Description and the five senses

- Tactile (Touch): Think about texture, or how the surface of something you're touching feels
- Auditory (hearing): Are you hearing a scrape, or a scratch? A wail or a sob? Consider the different descriptions that you can use for sound.
- Visual (sight): What can you see? What does it look like? How would you describe: colours, textures, movements?
- Gustatory (taste): Consider things like flavors and textures for example, what can you taste at the beach compared to what can you taste in a forest?
- Olfactory (smell): Think about what smells stand out for you and how everyday smells can add to description and add to emotions e.g. why do some smells appear unpleasant where as others are inviting.

Narrative perspective

- **1st person perspective**: written as if the narrator is a character, observing or taking part in the story
- **2nd person perspective**: written as if the narrator is talking directly to the reader
- **3rd person perspective**: written as if the narrator is talking about the characters and events, but not necessarily a character in them.
- **Limited narrator**: A narrator aligned to a specific character, knowing nothing outside of that character's thoughts and interactions with the world and story.
- **Omniscient narrator**: A narrator who is god-like, able to move from place to place and character to character, realigning the reader to any perspective they wish to share.

Key vocabulary			
Heinous	wicked.	**Virtuous**	having or showing high moral standards.
Empathy	the ability to understand and share the feelings of another.	**Sleuth**	a person who investigates crimes; a detective.
Capital punishment	the legally authorized killing of someone as punishment for a crime.	**Duplicitous**	deceitful.
Destitution	poverty so extreme that one lacks the means to provide for oneself.	**Conniving**	conspire to do something immoral, illegal, or harmful.
Plight	a dangerous, difficult, or otherwise unfortunate situation.	**Justice**	the quality of being fair and reasonable.
Impoverished	Can be used to describe a place or person – being poor.	**Corporal punishment**	physical punishment, such as caning or flogging.
Aristocracy	the highest class in certain societies, typically comprising people of noble birth holding hereditary titles and offices.	**Retribution**	punishment inflicted on someone as vengeance for a wrong or criminal act.
Broadsides	Broadsides were used as posters, announcing events or proclamations, commentary in the form of ballads, or simply advertisements.		
Inference	a conclusion reached on the basis of evidence and reasoning.		
Deduction	to reach an answer or a decision by thinking carefully about the known facts		
Detection	The work of a detective in investigating a crime.		
Gallows	a structure, typically of two uprights and a crosspiece, for the hanging of criminals.		
Moral	concerned with the principles of right and wrong behaviour.		
Conspicuous	attracting notice or attention.		

Year 8 Mathematics Knowledge Organiser	Topic	Where does the word radius come from?
	Geometry - Circles and Pythagoras	*Radius is from the Latin root word radius meaning the spoke of a wheel.*

Circles

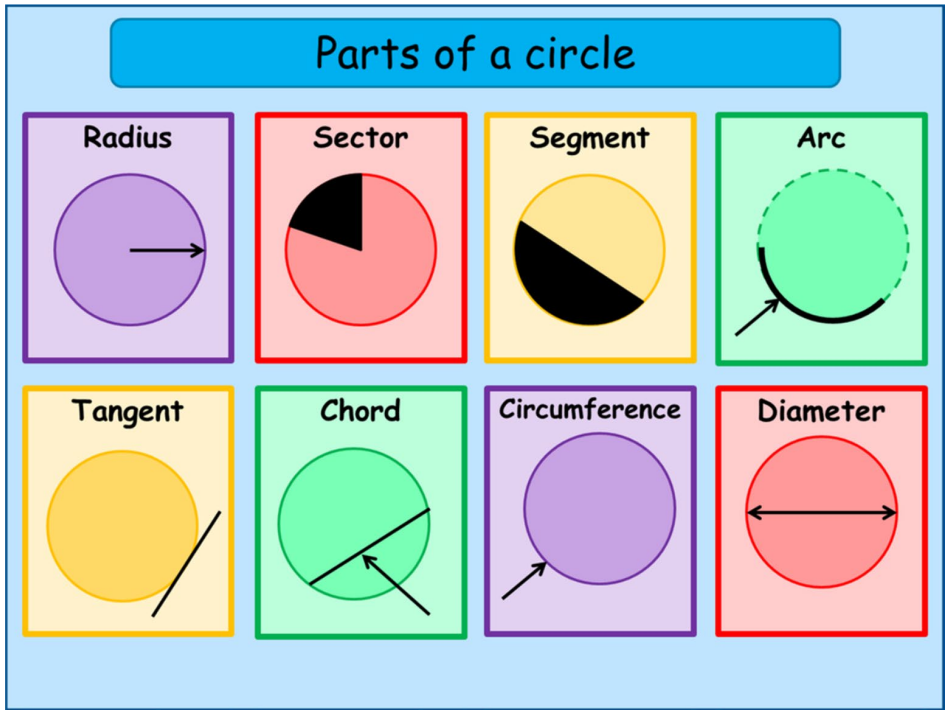
What is Pi

Pi is the ratio between the circumference of a circle and its diameter.

Pi is denoted by the Greek Symbol π

What is the value of Pi

Pi $\approx 3.14159265358979323846 26 \ldots$



Circumference of a circle

The circumference of a circle is equal to π multiplied by the diamater:

$C = \pi d$

Area of a circle

The area of a circle is equal to π multiplied by the radius squared :

$A = \pi r^2$

Pythagoras' Theorem

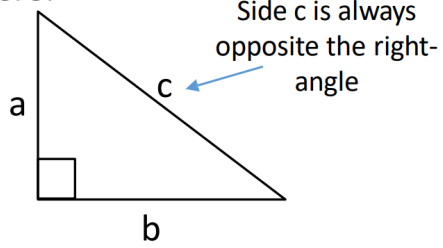
Pythagoras' Theorem:

This theorem can be used to calculate the length of sides on right-angled triangles.

The theorem is:

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

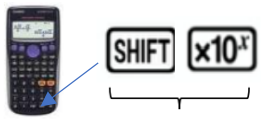
Where:



When calculating the length of side c, use $a^2 + b^2 = c^2$

When calculating the length of a shorter side (a or b) use $c^2 - b^2 = a^2$

Calculator buttons



SHIFT $\times 10^x$

How to get π symbol on the calculator

How to get **Squared** on the calculator

$x^{\square}$

Year 8 Mathematics Knowledge Organiser

Topic

Algebra, Sequences & Roots

Where does the work sequence come from ?

English word sequence comes from the Latin 'sequor' (with accusative) I follow, come or go after.

Types of Sequences

Arithmetic (Linear)

One which increases or decreases by the same number each time.

3 , 5 , 7 , 9 , 11.....

Quadratic

One in which the second differences are identical.

2, 4, 8, 14, 22.....

Geometric

One which the terms are multiplied or divided by the same value.

5, 10, 20, 40, 80.....

Fibonnaci-Style

One in which the next term is the sum of the previous two terms.

1, 1, 2, 3, 5, 8, 13,21.....

Generating Sequences

Find the 1st 5 terms of the sequence: **2n + 3**

Substitute n as the position in the sequence.

n	1	2	3	4	5
2n + 3	2(1) + 3	2(2) + 3	2(3) + 3	2(4) + 3	2(5) + 3
	5	7	9	11	13

Finding the 10th term of the sequence

Substitute n with 10

2(10) + 3 = 20 + 3 = 23

Finding the 100th term of the sequence

Substitute n with 100

2(100) + 3 = 200 + 3 = 203

Finding the nth Term

The nth term of a sequence is the rule that it follows.

7, 12, 17, 22, 27.....

+5 +5 +5 +5 +5

Identify the term-to-term rule

The adding of 5 each time is represented by **5n**

2, 7, 12, 17, 22, 27.....

- 5

Find the previous term.

The previous term of 2 completes the nth term of **5n + 2.**

Term – to - Term

The term-to-term rule of sequence is the difference between each term.

2, 6, 18, 54, 162...

x 3 x 3 x 3 x 3

Term-to-Term = x 3

Finding the Next Term

12, 15, 18, 21, ☐

+3 +3 +3 +3 +3

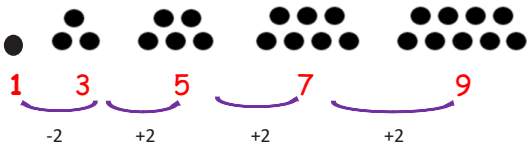
21 + 3 = 24

Sequences in Patterns

Sequences can be represented via a pattern, where the nth term can be calculated.

Count the number of symbols in each pattern

Find the nth term of your list



The adding of 2 each time is represented by **2n**

The previous term of 1 completes the nth term of **2n + 1.**

The next term would have 11 dots.

Change the Subject

When changing the subject of a formula or equation, you rearrange it so that you have a different subject.

Make b the subject: $a = b + c$

$-c \quad -c$

$a - c = b$

Use function machines to complete the inverse process (work backwards)

Roots

Square root

A number that when multiplied by itself gives the original number.

We use the symbol $\sqrt{\ }$ to indicate we wanting the square root

Cube root

A number that when multiplied by itself and itself again gives the original number.

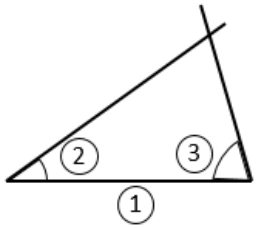
We use $\sqrt[3]{\ }$ to indicate we wanting the cube root

Year 8 Mathematics Knowledge Organiser	Topic	*Where does the work perpendicular come from?*
	Geometry, Locus and Constructions	Perpendicular dates back to late Middle English (as an adverb meaning 'at right angles'): via Old French from Latin perpendicularis, from perpendiculum'plumb line', from per-'through' + pendere'to hang'.

1. Constructing Triangles

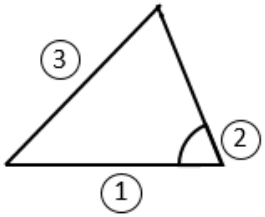
ASA

1) Draw the base to scale
2) Measure one angle and draw a straight line through
3) Measure the other angle and draw a straight line until they intersect



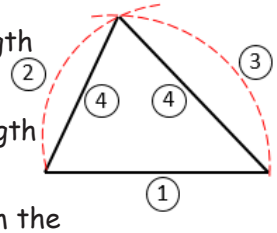
SAS

1) Draw the base to scale
2) Measure one angle and draw a line through to scale
3) Complete the triangle by drawing a 3rd straight line



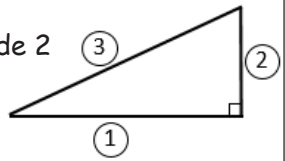
SSS

1) Draw the base to scale
2) Open compass to the length of side 2 and draw an arc
3) Open compass to the length of side 3 and draw an arc
4) Draw 2 stright lines from the arc intersecton to each corner



RHS

1) Draw the base to scale
2) Measure 90° and draw side 2
3) Complete the triangle by drawing a 3rd straight line

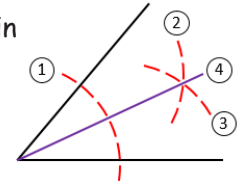


2. Bisectors

To bisect something is to divide it in to 2 exactly equal parts

Angle Bisector

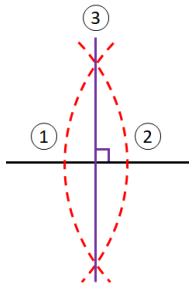
1) Place compass at the intersection and draw an arc through both lin
2) Place compass on one of the arc crossings and draw another
3) Repeat on the other original arc crossing
4) Draw a straight line through the new arc intersection to the angle intersection



Perpendicular Bisector

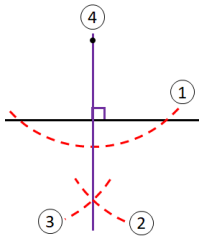
Perpendicular means to intersect at 90 °

1) Place compass at one end of the line and draw an arc through it
2) Repeat on the other end of the line
3) Draw a straight line through the arc intersections



From a Point

Use the same process, drawing the arcs from the point instead of the ends of the line



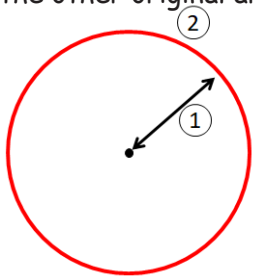
3. Locus

"**Loci**" is the plural of "**Locus**".

A Locus is the path you would follow if you were given certain instructions.

From a Point

1) Open compass to desired length
2) Place compass on fixed point and draw a complete circle
3) Repeat on the other original arc crossing



Equidistant

1) Open compass to desired length
2) Place compass on one end of the line and draw a semicircle
3) Repeat on the other end of the line
4) Join the semi circles with 2 straight lines

Mathematics Command Words – Tier 2 Vocabulary

State the units of your answer	Write down your full calculator display	Explain how you got your answer…	Give a reason for your answer…	Write down the next two terms…
The correct units must be given to gain full marks. There may be a stand-alone mark for giving the correct units	Give your answer as a decimal and write all the digits shown on your calculator.	Explain in words the implication of the given information	Explain in words the implication of the given information	Look at the sequence to see which numbers would come next, following the rule
Example Application	**Example Application**	**Example Application**	**Example Application**	**Example Application**
Work out the volume of the cuboid, <u>state the units of your answer</u>	Find the length AC, write down <u>your full calculator display</u>	The area of one face of a cube is 36 cm^2. What is the volume of the cube. <u>Explain how you got your answer.</u>	Is 97 a term in the sequence? <u>Give a reason for your answer</u>	<u>Write down the next two terms</u> in the geometric sequence? 5, 10, 20, 40,

On the diagram below, draw	Calculate the area of the shaded region…	You must show your working…	Work out	Give your answer in terms of π
Add the required information to a given diagram	Find the area of the space that is identified by colouring or cross-hatching.	A correct answer will not receive the marks unless working is given to show how the answer was arrived at	One or more calculations will usually be necessary.	Don't use a decimal value of pi, just do the working with the coefficients of pi
Example Application	**Example Application**	**Example Application**	**Example Application**	**Example Application**
<u>On the diagram below draw</u> a tangent to the circle	<u>Calculate the area of the shaded region</u> in the shape below	Find the area of the shape. <u>You must show your working</u>	<u>Work out</u> the area of the sector of the circle	The radius of a circle is 5cm. What is the area, <u>give your answer in terms of π .</u>

Use your Calculator to…	Construct	Shade the region	Show the possible positions	Scale drawing
You are not expected to show the required calculations or how you worked them out.	Draw accurately. If told to use compasses, all construction arcs and lines should be shown.	Show a required region by dark colouring or cross-hatching.	There is usually more than one place for a point to be, state/show all of them.	A diagram, used to represent a smaller or larger object, shape or image.
Example Application	**Example Application**	**Example Application**	**Example Application**	**Example Application**
<u>Use your calculator</u> to find the value of $\sqrt{98}$	<u>Construct</u> a perpendicular bisector of the line AB	A stadium is going to build 10km from town A and 8km from town B. <u>Shade the region</u> on the diagram where the stadium can be built.	Point P is 300m from point A, <u>show all the possible positions</u> of point P.	The accurate <u>scale drawing</u> shows a field. Find an estimate for the perimeter of a field

Mathematics Command Words – Tier 3 Vocabulary

Sequence	Linear	Term	Geometric Sequence	Common Ratio
An ordered set of numbers, shapes or other mathematical objects, arranged according to a rule.	A sequence which increases (or decreases) by the same amount each time.	Each number in a sequence is called a **term**.	A **geometric sequence** goes from one term to the next by always multiplying or dividing by the same value.	The number multiplied (or divided) at each stage of a geometric sequence is called the **common ratio**
Example Application	**Example Application**	**Example Application**	**Example Application**	**Example Application**
What is the next term in the following **sequence**? 2, 5, 8, 11	What is the next term in the **linear sequence**? 5, 8, 11, 14, …	In the sequence **2, 6, 10, 14 …** the first **term** is 2 and the second **term** is 6.	What is the next term in the **geometric sequence**? 5, 10, 20, 40, …	What is the **common ratio** in the geometric sequence? 5, 10, 20, 40,

Tangent	Circumference	Diameter	Radius	Sector
A straight line touching a curve once at a given point	The distance around the edge of a circle, also known as the perimeter of the circle	A straight line passing through the centre of a circle and touching circumference twice.	The distance from the centre of a circle to its circumference. (Plural Radii)	A section of a circle, bounded by two radii and an arc
Example Application	**Example Application**	**Example Application**	**Example Application**	**Example Application**
Draw a **tangent** on the circle	Find the **circumference** of the circle, give your answer in terms of π	The radius of a circle is 5cm, what is the **diameter?**	The **radius** of a circle is 20 cm, what is the area of the circle?	What is the area of the **sector** of the circle?

Hypotenuse	Equidistant	Bearing	Bisector	Locus
The longest side of a right-angled triangle.	Equidistant is another word for 'equally distant', which means at the same distance from a place	The angle in degrees measured clockwise from North. Bearings should be written as 3 figures	To divide into two equal sections	A set of points that satisfy a particular condition or rule (Plural loci)
Example Application	**Example Application**	**Example Application**	**Example Application**	**Example Application**
Find the length of the **hypotenuse**	What construction should you use to show the locus of points **equidistant** from AB and CD in the rectangle ABCD.	Find the **bearing** of A from B	Construct the an angle **bisector** of the angle ABC	Farmer Smith has tied a cow around a post on a rope 4 m long. What the **locus** of the cow as it moves around the post?

Year 8 Science: Biology – Adaptation and Inheritance

Variation

Differences in characteristics are called **variation**.

Inherited variation

Characteristics are passed on from parents to offspring

genetic diseases
eye colour
blood group

Surroundings affects your characteristics

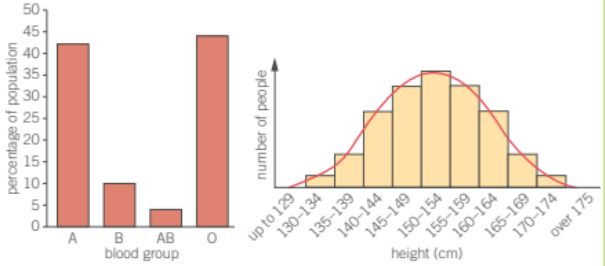
dyed hair
tattoos
accent

Environmental variation

Many characteristics, such as height, are affected by both inherited and environmental variation.

Discontinuous variation
can only result in certain values
(*e.g., blood group or eye colour*)

Continuous variation
can take any value within a range
(*e.g., height or hair length*)



Discontinuous variation should be plotted on a bar chart, and continuous variation should be plotted on a histogram.

Inheritance

Characteristics

Characteristics are inherited from your parents through genetic material stored in the nucleus of cells.

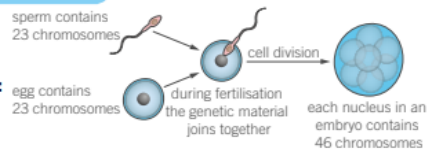
We inherit half of our DNA (deoxyribonucleic acid) from our mother and half from our father.

DNA

- contains all the information needed to make an organism
- is arranged into long strands called **chromosomes**.
- each chromosome is divided into sections of DNA
- sections of DNA that contain the information to produce a characteristic are called **genes**

Scientists Watson, Crick, Franklin, and Wilkins, worked together to produce a model of the structure of DNA.

Inheritance of genetic material:



Natural selection

Organisms in a species show variation caused by differences in their genes.

↓

Organisms with the most useful characteristics survive and reproduce.

↓

This is called 'survival of the fittest'.

↓

Successful genes are passed on to the offspring. → This is repeated many times and over a long time can lead to a new species.

Process of natural selection

- All living organisms have **evolved** from a common ancestor, through the process of natural selection.
- Organisms change slowly over time.
- Those better adapted to their environment are more likely to survive.

Adaptation and change

Adaptation	Competition
• Adaptations are characteristics that help an organism to survive and reproduce. *For example, the cheetah is the fastest land animal. This speed makes it a very successful predator.*	Animals compete for: food, water space (for shelter and to hunt), and mates (to reproduce). Plants compete for: light, water, space, and minerals (plants produce their own food through photosynthesis).
Environmental changes	**Competition and adaption**
• Plants and animals adapt to changes in their environments. • Habitats can change through fire, climate change, or disease causing reduced food supplies. *For example, deciduous trees look different in each season, and bears hibernate somewhere warm in the winter.*	• Predator and prey species are **interdependent**. • This occurs when a change in the population of one animal directly affects the population of the other. *For example, the number of Canadian lynx and its prey the snowshoe hare.*

Extinction

If a species is not well-adapted to its environment it will not survive, and the organisms will die before reproducing. A species becomes **extinct** when there are no more individuals of that species left anywhere in the world. The **fossil record** shows that many species that once lived have become extinct.

Factors leading to extinction:

- changes to the organism's environment
- destruction of their habitat
- new diseases
- new predators
- increased competition.

Scientists are trying to prevent **endangered** species (at risk of extinction) from becoming extinct.

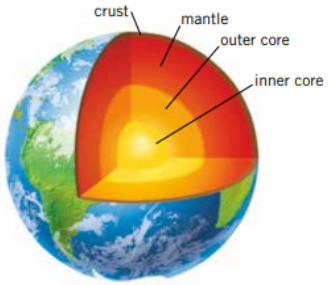
For example, by using gene banks to store genetic samples from different species.
In the future these can be used for research, or to produce new individuals.

Year 8 Science: Biology – Adaptation and Inheritance

Key word	Definition	Contextual Sentence
adaptation	Characteristic that helps an organism to survive in its environment.	An adaptation of a polar bear is its thick white fur for warmth and to camouflage.
chromosome	Long strand of DNA, which contains many genes.	We have 23 pairs of chromosomes, as a human.
competition	Competing with other organisms for resources.	The wolves and the bears are in competition for the same food source.
continuous variation	Characteristic that can take any value within a range of values.	Your height is an example of continuous variation.
discontinuous variation	Characteristic that can only be a certain value.	Your eye colour is an example of discontinuous variation.
DNA	Chemical that contains all the information needed to make an organism.	It is in your DNA to have a natural hair colour of blonde.
evolution	Development of a species over time.	Many species have undergone evolution to exist as we see them today.
extinct	When no more individuals of a species are left anywhere in the world.	The dodo and the wooly mammoth are extinct, and many animals today risk extinction such as the white rhino.
fossil	The remains of plants and animals that have turned to stone.	The outline of the plant can be seen in the fossil.
gene	Section of DNA that contains the information for a characteristic.	She inherited a good set of genes from her parents.
gene bank	A store of genetic samples, used for research and to try to prevent extinction.	Seed banks are an example of a gene bank, they would keep many plants species to be used in the future.
interdependence	The way in which living organisms depend on each other to survive, grow, and reproduce.	If your dog provides you with love, and you provide your dog with food and walks, then your relationship with your dog is one of interdependence.
natural selection	Process by which the organisms with the characteristics that are most suited to the environment survive and reproduce, passing on their genes.	Natural selection is also known as survival of the fittest.
species	Organisms that have lots of characteristics in common, and can mate to produce fertile offspring.	Humans, cats, frogs, snakes and penguins are all examples of different species.
variation	Differences in characteristics within a species.	Even though they are siblings there is variation between the two sisters.

Year 8 Science: Chemistry – The Earth

The Earth

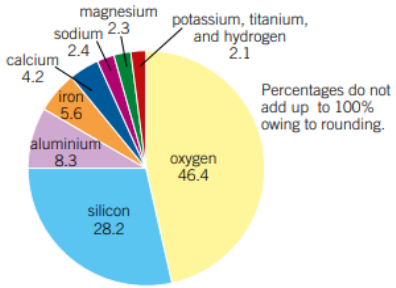


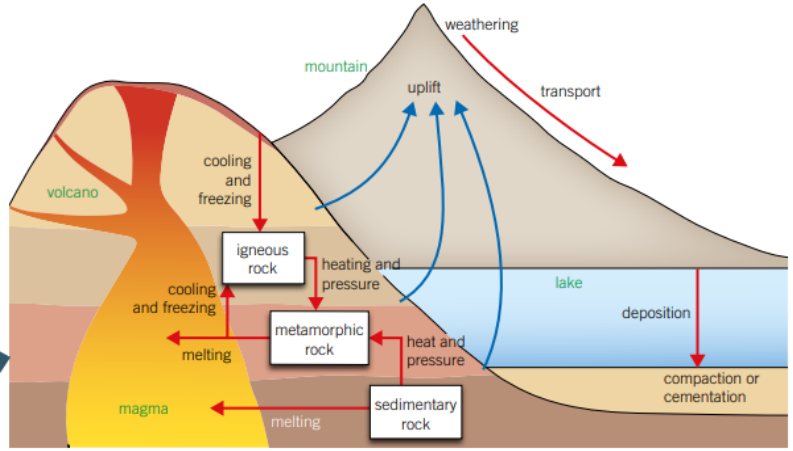
The Earth is made of several layers:

- The **crust** is rocky and solid.
- The **mantle** is solid rock but can flow.
- The **outer core** is liquid metal and the **inner core** is solid metal.

The crust

The Earth's crust contains many naturally-occurring elements in different proportions.





The rock cycle

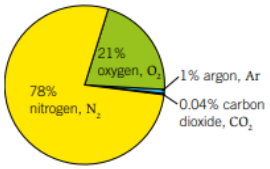
Because the different rocks can turn into each other, we say that there is a rock cycle.

Types of rock

There are three types of rock that make up the Earth's crust. These are formed by different processes in the **rock cycle**, and have different properties.

The atmosphere

The **atmosphere** is a layer of gas surrounding the Earth. It is mainly comprised of nitrogen and oxygen.



Type of rock	How it is formed	Properties	Uses
sedimentary rock	• **sediment** piles up in one place and over many years stick together by **compaction** or **cementation** • **compaction**: weight of sediments above squeeze them into rocks • **cementation**: another substance sticks the sediments together	• porous: made of small grains stuck together so there are holes that water can pass through • soft: easy to break apart the sediments	building materials (*e.g., sandstone and limestone*)
igneous rock	• when liquid rock cools it turns into igneous rocks these are made of **crystals** locked tightly together • **Magma**: liquid rock underground – cools slowly and forms large crystals. • **Lava**: liquid rock above the ground – cools quickly and forms small crystals.	• Durable and hard (difficult to damage): the crystals are locked tightly together • Not porous: there is no space between crystals	pavement rail tracks
metamorphic rock	• other rocks under the Earth are heated and put under pressure • over time, these rocks become metamorphic	• Not porous: there is no space between crystals	marble used for kitchens slate used for roofing tiles

Year 8 Science: Chemistry – The Earth

Key word	Definition	Contextual Sentence
atmosphere	The mixture of gases surrounding the Earth.	Greenhouse gases are released into the atmosphere.
carbon cycle	The carbon cycle shows stores of carbon, and how carbon and its compounds enter and leave these stores.	People who pay attention to their effect on the carbon cycle can come together to make a big difference to the health of the planet.
carbon store	A place where carbon and its compounds may remain for a long time. Carbon stores include the atmosphere, oceans, sedimentary rocks, fossil fuels.	The ocean dissolved lots of carbon dioxide it is one of the main carbon stores.
chemical weathering	The breaking up or wearing down of rocks by the action of chemicals such as those in rainwater.	Acid rain is an example of chemical weathering.
climate change	A long-term change in weather patterns.	Climate change is a major crisis that the world faces today.
combustion	A burning reaction, in which a substance reacts quickly with oxygen, and gives out light and heats the surroundings.	The wood combusts in the fireplace, heating the room.
compaction/cementation	The process of squashing sediments together to make new rocks by the weight of layers above.	Cementation occurs when the sediments glue together to make new rocks.
deforestation	The cutting down or burning of trees in forests.	Deforestation of the amazon rainforest is a major problem for the world.
deposition	The settling of sediments that have moved away from their original rock.	Flowing water cause the deposition of sediment collected from the riverbanks.
erosion	The breaking of a rock into sediments, and their movement away from the original rock.	The cliffs have eroded away.
greenhouse effect	The absorbing of energy by gases in the atmosphere, such as carbon dioxide.	Greenhouse gases cause the atmosphere to trap heat leading to the greenhouse effect.
igneous	Rock made when liquid rock (magma or lava) cools and freezes.	Granite is an igneous rock.
lava	Liquid rock that is above the Earth's surface.	The lava runs down the side of the mountain.
magma	Liquid rock that is below the Earth's surface.	The volcanoes erupted and magma spilled out.
metamorphic	Rock formed by the action of heating and/or pressure on the sedimentary or igneous rock.	Marble is a metamorphic rock.
photosynthesis	The process plants use to make their own food, glucose. In photosynthesis, carbon dioxide and water react together to make glucose and oxygen.	This plant is undergoing photosynthesis in the sunlight.
physical weathering	The breaking up or wearing down of rocks by the effects of changing temperature.	Water freezing into cracks in rocks will contribute to physical weathering.
porous	A porous material has small gaps that may contain substances in their liquid or gas states. Water can soak into a porous material.	The porous material absorbed the most water.
radiation	The transfer of energy as a wave.	The sun's radiation travels to earth.
respiration	The process that transfers energy from plants and animals. In respiration, glucose reacts with oxygen to make carbon dioxide and water.	Respiration of animals is one of the causes of increased carbon dioxide.
rock cycle	The rock cycle explains how rocks change and are recycled into new rocks over millions of years.	Weathering and erosion are part of the rock cycle process that help shape the Earth's surface.
sediment	Pieces of rock that have broken away from their original rock.	Crude oil is formed in the ocean as remains of plankton are buried under sediment.
sedimentary	Rock made from sediments.	Limestone and sandstone are sedimentary rocks.
weathering	Weathering breaks up all types of rock into smaller pieces, called sediments.	Along the cliffs weathering has occurred leading to the rocks wearing away.

Year 8 Science: Physics – Motion and Pressure

Speed

Speed is how far something moves in a certain time.

$$\text{speed (m/s)} = \frac{\text{distance travelled (m)}}{\text{time taken (s)}}$$

- Speed is measured in **metres per second (m/s)**.
- Convert distances to metres and times to seconds to get the answer.

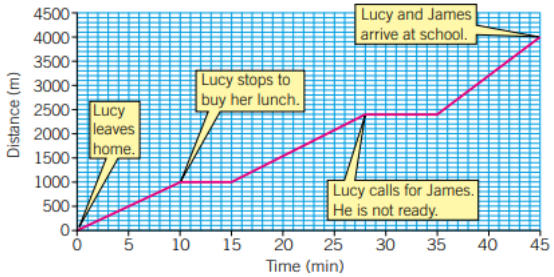
Relative motion

- Compares how fast one object is moving to another.
- If two objects are moving at the same speed in the same direction then their relative speed is zero.

Motion graphs

Distance-time graph

These graphs show the distance something travels over a certain time.



To calculate the average speed from a distance–time graph you find the distance covered, and divide it by the time taken.

Pressure in solids

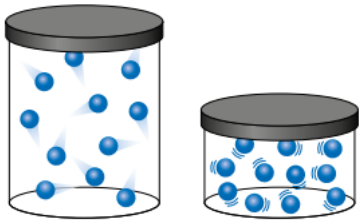
- Pressure is the force exerted on a surface because of weight, and is measured in **newtons per metre squared**.
- For small areas you can use centimetres instead.
- Pressure explains why studded boots help you grip grass, or why snowshoes help you walk in snow.

$$\text{pressure (N/m}^2\text{)} = \frac{\text{force (N)}}{\text{area (m}^2\text{)}}$$

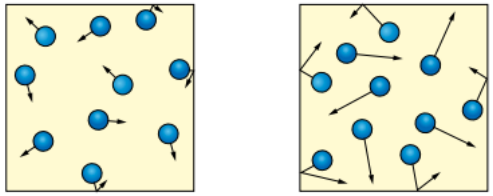
Pressure in gases

Collisions between gas molecules and their container produce **gas pressure**.

If you **compress** (squash) a gas into a smaller volume there will be more collisions, and so a higher pressure.



If you heat a gas, the particles will have more energy. This means they will move more quickly and collide with the container more often, so the pressure will be greater.

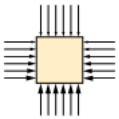


Atmospheric pressure is the pressure acting on us from the air around us.

- The higher above sea level the lower the atmosphere pressure.
- This is because the air is less dense the higher you go above sea level, so there are fewer collisions between air particles.

Pressure in liquids

- Solids and liquids are **incompressible**, because all the particles are touching already. This means they pass pressure on.
- The pressure at the bottom of a liquid is bigger than the top, because of the weight of the water liquid pushing down pressure increases with depth.



Objects float because of **upthrust**. Liquid pressure produces this upthrust. In the example, the object floats because the upthrust acting on the bottom of it is stronger than the forces acting on the top.

Turning forces

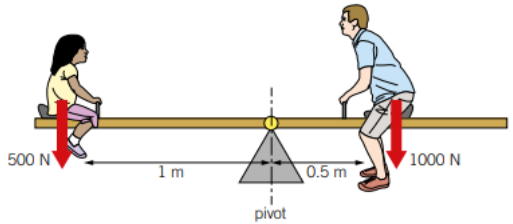
- **Moments** are the turning effect of a force.
- The unit for the moment is **newton metres (Nm)**.

moment (Nm) = force (N) × perpendicular distance from the pivot (m)

- To calculate the moment you multiply the force applied by the distance from the **pivot**.
- The bigger the force, or the further the distance, the bigger the moment.

The law of moments

During **equilibrium**, all the clockwise moments added together must equal all of the anticlockwise moments added together.



clockwise moment = force × distance on the right
= 1000 N × 0.5 m
= 500 Nm

anticlockwise moment = force × distance on the left
= 500 N × 1 m
= 500 Nm

The moments in the example above are the same. This is how see-saws balance.

Year 8 Science: Physics – Motion and Pressure

Key word	Definition	Contextual Sentence
acceleration	The amount by which speed increases in one second.	The acceleration of the plane was much greater than the car.
atmospheric pressure	Pressure caused by the collisions of air molecules that produce a force on an area.	The balloon was exploded in air at atmospheric pressure.
average speed	The total distance travelled in the total time taken for a complete journey.	The average speed of the journey from school to home was 30 mph.
centre of gravity	The point in an object where the force of gravity seems to act.	A heavy car with a low center of gravity will hug the road.
centre of mass	The point in an object where the mass of an object seems to act.	The 4x4 car has a high centre of mass so it would more likely roll around a corner.
compressed	Squashed into a smaller space.	The gas was compressed to fit into the container.
density	The mass of a material in a certain volume.	The density of steel is greater than that of water and so it sinks.
distance-time graph	A graph that shows how far an object moves each second.	A distance time graph was used to map out the students journey.
gas pressure	The force exerted by air particles when they collide with a surface.	The gas pressure on the inside of the tyre was too low so it was flat.
incompressible	Cannot be compressed (squashed).	The solid brick is incompressible.
instantaneous speed	The speed at a particular moment.	The instantaneous speed of the car was 60 mph.
law of moments	An object is in equilibrium if the clockwise moments equal the anticlockwise moments.	N/A
liquid pressure	The pressure produced by collisions of particles in a liquid.	There was no liquid pressure in the bathroom this morning.
metres per second	A unit of speed.	The ball rolled down the hill at 6 metres per second
moment	A measure of the ability of a force to rotate an object about a pivot.	A moment is measured in newton meters. A spanner loosening a bolt uses moments.
pivot	The point about which a lever or see-saw balances.	The door hinge pivots around the pin.
pressure	A force exerted on a certain area.	Pressure is measure in newtons per metre squared, Gas cannisters are under high pressure.
relative motion	The difference between the speeds of two moving objects, or of a moving and a stationary object.	N/A
speed	A measure of how far something travels in a given time.	The speed of the car increased as it drove onto the motorway

RELIGIOUS STUDIES

Half Term One What are the key beliefs of a Sikh?
1. Introduction How did Sikhism begin?
2. Who are the Gurus?
3. What are the 5 K's?
4. What is the Khalsa?
5. Where do Sikhs worship?
6. What is Sewa and Langar?
7. Assessment

1. How did Sikhism begin?

Sikhism started in the Punjab area of South Asia, which now falls into the present-day countries of India and Pakistan. The main religions of the area at the time were Hinduism and Islam. The Sikh faith began around 1500 CE, Sikhs believe that Guru Nanak, the founder of the Sikh religion, received messages from God to teach people how to follow a simple faith and he declared. 'God is neither Hindu nor Muslim'. Guru Nanak began teaching the importance of the equality of all people, regardless of their caste, religion, or gender. He taught that everyone is created by God's will and therefore we must all be treated equally and with respect. Nine Gurus followed Nanak and developed the Sikh faith and community over the next centuries.

Sikhism Key info	
Founder	Guru Granth Sahib
Symbols	Khanda
Festivals	Vaisakhi
Places of worship	Gurdwara
Holy Book	Guru Granth Sahib
God	Monotheistic religion (belief in one God)
Followers	Sikhs 27 million followers in the world which makes it the fifth largest religion
Place of origin	Punjab area of South Asia

2. Who are the Gurus?

The Guru Granth Sahib is a collation of many hymns, poems, shabads and other writings from many different scholars, including the Gurus and Hindu and Muslim writers. Every Guru Granth Sahib has 1,430 pages, and every copy is identical.
The Guru Granth Sahib is not just the holy scripture of Sikhism. It is also considered as the living Guru. Before Guru Gobind Singh died, he declared that there would be no more human Gurus and that the Guru Granth Sahib would be the Eternal Guru.

3. What are the 5 K's?

All members of the Khalsa must wear the 5 K's. These are five physical symbols of their faith. They are:
1. **Kesh**- uncut hair. This is a highly visible symbol of membership of the Khalsa. Uncut hair is a symbol of both holiness and strength.
2. **Kara**- a steel bracelet. The Kara is made of steel rather than gold or silver because it is not an ornament. It is a symbol of God having no beginning or end.
3. **Kanga**- a wooden comb. This symbolises a clean mind and body since it keeps the uncut hair neat and tidy.
4. **Kachha**- special underwear. This is a pair of shorts that must not come below the knee. Sikh men wear them as a symbol of modesty and good character.
5. **Kirpan**- a ceremonial sword. There is no fixed style of Kirpan and it can be anything from a few inches to three feet long. The Kirpan symbolises the defence of the good and the struggle against injustice.

4. What is the Khalsa?

The Khalsa was formed by Guru Gobind Singh at Vaisakhi in AD1699. It is a group into which committed Sikhs can be initiated to demonstrate their devotion to their faith. The Khalsa remembers five volunteers who were prepared to offer their lives for Waheguru (God) and Guru Gobind Singh.
After offering their lives to Guru Gobind Singh, the five volunteers were given Amrit, which is a mixture of sugar and water. They were given it in a bowl stirred by a khanda – a double-edged sword. This represented them being initiated into the Khalsa. Guru Gobind Singh declared that all men who were initiated into the Khalsa would be given the name 'Singh', meaning 'lion', and all women who were initiated would be given the name 'Kaur', meaning 'princess'. This represents equality and fairness for all.

5. Where do Sikhs worship?

The Sikh place of worship is called a Gurdwara which means 'Gateway to the Guru'. A Gurdwara is any building where the Guru Granth Sahib is kept. In the UK, Sikhs usually go to the Gurdwara on Sundays. During the services they listen to teachings based on the Guru Granth Sahib. They also chant and say prayers from the gurus. These are called Keertan. The Gurdwara is a place for spiritual wisdom and religious ceremonies but also a community centre which offers food and shelter to those who need it. Theare are no idols, statues, or religious pictures in a Gurdwara because Sikhs worship only God.

6. What is Sewa and Langar?

Sewa means 'selfless service'. It involves acting selflessly and helping others in a variety of ways, without any reward or personal gain. It is a way of life for many Sikhs and is part of their daily routine. Sikhism teaches that sewa is an act of service towards Waheguru and therefore must be done regularly in order to become closer to Waheguru. The langar (or free kitchen) was introduced by Guru Nanak, who was the founder of Sikhism and the first Guru, because of his belief in the oneness of humanity. He offered free meals to everyone, regardless of their caste, gender or wealth. It was a place where everyone gathered and ate together. The langar is also the free food that is served in the kitchen.

Guru Nanak

Key Terms	Definition	Contextual Sentence
Gurdwara	The holy building for Sikhs	Sikhs pray in a Gurdwara.
Gurus	The title given to the human Messengers of God	The Gurus are the spiritual masters of Sikhism.
Guru Granth Sahib	The Sikh scriptures	Sikhs show the Guru Granth Sahib great respect.
Kirpan	Part of the 5 K's , a single edged sword	Sikhs carry the kirpan as it is a commandment given.
Kesh	Part of the 5 K's, uncut hair	Kesh is an outward symbol ordered by the Gurus.
Kachera	Part of the 5 K's, shorts worn as an undergarment	Kachera are worn by baptized Sikhs.
Kara	Part of the 5 K's, steel wristlet	A Kara shows somebody is part of the Sikh faith.
Kanga	Part of the 5 K's, a comb to keep the uncut hair tidy	A Kanga is made of wood and helps to keep the hair clean.
Langar	Where free meals are served to visitors	The langar is a community kitchen.
Guru	Religious teacher	A Guru leads the service in a Gurdwara.
Khanda	The symbol of Sikhism	The khanda consists of three objects.
Waheguru	The name for God in Sikhism.	Sikhs worship Waheguru.
Sewa	'Selfless service.'	Sewa involves helping others.

Half Term Two What is the philosophy of religion?
1. What is philosophy?
2. What are philosophical proofs for the existence of God?
3. Why does evil and suffering pose a challenge to the existence of God?
4. Is God in the mind?
5. What is the soul?
6. Assessment

1. What is philosophy?

Philosophy is an ancient subject, dating back to the Ancient Greeks 2,500 years ago. Philosophers are interested in thinking about, discussing, and sometimes writing about what we might call the 'big questions' in life – philosophical questions.

One of the greatest influences on modern philosophy is Socrates (469 BC-399 BC) who is often called the Father of Western Philosophy. Socrates stated that 'the unexamined life is not worth living.

Plato was one of the greatest classical Greek philosophers. He lived from 427 BC to 348 BC. He was a student of Socrates and the teacher of Aristotle. Plato wrote about many ideas in philosophy that are still talked about today. Plato founded the first university and was one of the first to teach women should have the same education as men. Plato also believed in an unseen world where there existed perfect models of all things on Earth. This is the world of Forms.

2. What are philosophical proofs for the existence of God?

The Causation Argument: Thomas Aquinas argued that everything in the cosmos has a cause. If you track things back through a series of causes, there must have been a 'first cause'. He said that this 'first cause' is God, whom he described as a 'necessary being', eternal and transcendent, existing outside of our space and time but able to act within it, needing no explanation and having no cause. Scientific discoveries, e.g., the Big Bang theory, can be seen to support the first cause argument. If God caused the 'Big Bang', then God is the 'first cause' that brought the cosmos (universe) into existence. However, many argue if God caused the Big Bang, who caused God?

The Design Argument: William Paley (1743 – 1805) argued that the complexity of the world suggests there is a purpose to it. This suggests there must be a designer, which he said is God. Paley used a watch to illustrate his point. If he came across a mechanical watch on the ground, he would assume that its many complex parts fitted together for a purpose and that it had not come into existence by chance. There must be a watchmaker.

3. Why does evil and suffering pose a challenge to the existence of God?

There are many examples of evil and suffering in the world. For religions such as Christianity who believe God is all loving (omnibenevolent) and all powerful (omnipotent) this can cause many problems. There are two types of evil and suffering:
In the Bible it says, 'The Lord is compassionate and gracious.' This can make many question why a God that is all loving would create a world that has so much natural evil in it. Many would ask why if God is all powerful, he did not intervene to stop examples of moral evil such as the Holocaust.

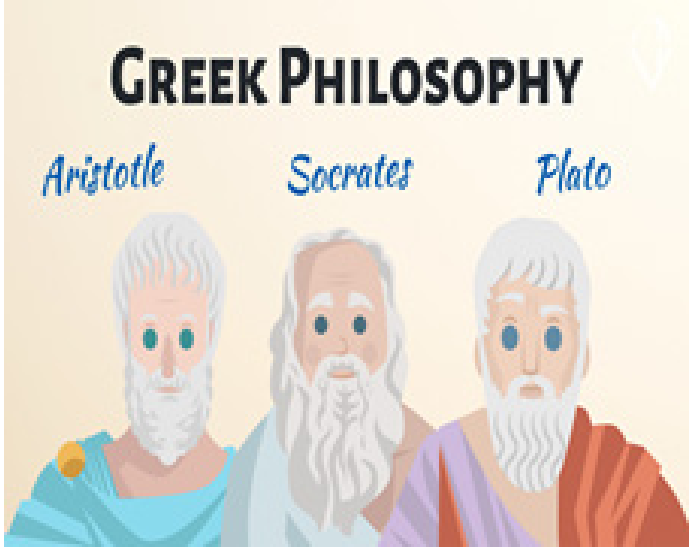
Many religions have developed responses to the problem of evil and suffering, these include:
1. Suffering is a test of faith to see who will remain loyal to God.
2. Suffering is caused by human free will.
3. Suffering is the consequence of the Original Sin of Adam and Eve in the Garden of Eden.

4. Is God in the mind?

Sigmund Freud (1856-1939) the founder of psychoanalysis argued that religion is an illusion based on human wishes.
Karl Marx, who wrote the Communist Manifesto described religion as 'the opiate of the masses.' It was a trick to keep the poor in their place and to stop them protesting about the inequality and poor conditions. Marx described religion as 'the soul of soulless conditions.'
Richard Dawkins is a famous biologist and atheist. For Dawkins, Darwin's theory on natural selection solves the question of where humans come from.

5. What is the soul?

Many people both religious and non-religious believe we have a soul. The soul is believed to be the non-physical part of humans that makes you unique. Many people believe the soul is immortal and is what will continue into an afterlife after death. Rene Descartes (1596-1650) used the words 'mind' and 'soul' interchangeably. He argued we can doubt the existence of the physical world. However, we cannot doubt the existence of the mind as by the process of doubting the mind we are thinking therefore proving the mind exists, he famously phrased this 'I think therefore I am.' In 1907 A doctor named Duncan MacDougall in Massachusetts devised an experiment that would measure the soul.



Key Term	Definition	Contextual sentence
Philosophy	The 'love of wisdom.' The study of some of life's biggest questions.	Philosophy is an attempt to understand the world in which we live
Socratic Method	A form of cooperative argumentative dialogue between individuals, based on asking and answering questions to stimulate critical thinking.	The Socratic Method is named after the Greek philosopher Socrates.
Transcendent	God is independent of the material world and beyond all known physical laws.	Christians believe that God is transcendent.
Necessary Being	A being that must have necessary existence.	Thomas Aquinas argued that God is a necessary being.
Design	An arrangement of parts in a structure so it achieves a certain purpose.	Many believe the complexity of the food chain shows evidence of design in the world.
Omnibenevolent	All-loving	Christians believe that God is omnibenevolent.
Omnipotent	All-powerful	Christians believe that God is all-powerful.
Moral Evil	Suffering caused by human action.	The Holocaust is an example of moral evil.
Natural Evil	Suffering that is not caused by human action.	A tsunami is an example of natural evil.
Meme	An idea, behaviour, style, or usage that spreads from person to person within a culture.	Richard Dawkins argued religion is a meme.
Soul	The part of human beings separate from the physical body that is thought of as the centre of feeling, thought, and spirit.	Many people believe the soul is immortal.

HISTORY

Year 8- Summer Term
The British Empire

What was an Empire?

What is the British Empire?
An **empire** is a group of countries ruled over by a single monarch or ruling power. An empire doesn't need an 'emperor'. The British Empire comprised of Britain, the 'mother country', and the colonies, countries ruled by and from Britain. In the 16th century Britain began to establish overseas colonies.

The shape of the British Empire by 1783
By 1783, Britain had established an empire including:
•Colonies in North America, including the West Indies,
•The Pacific including New Zealand
•Trading posts in India
•Naval bases in the Mediterranean - Gibraltar

But:
•Britain's defeat in the American War of Independence meant the loss of the American colonies.

The British Empire: 1783-1924
In the century 1815–1914, 10 million square miles of territory and 400 million people were added to the British Empire. Britain controlled a worldwide empire which covered a fifth of the land in the world.
Many British people at the time took great pride in the British Empire and their power. However, this was not a view shared by the people of the colonized lands. Many people living in British colonies faced political and economic inequality and the decline of their culture and religion.

The Rise and Fall of Empire

The British Empire after 1924
After World War One it became increasingly difficult for Britain to hold on to the Empire. It became clear that:

- Britain could no longer afford an empire.
- Britain had no right to rule people who did not want to be ruled by Britain.
- Britain realised that the Royal Navy was not strong enough to protect all the Empire anywhere in the world.
- The Treaty of Versailles (1919) promoted 'self-determination', or the right to rule yourself. It was difficult for Britain to support this principle for other countries, but deny it to countries in its Empire.

There was a strong independence movement in India:
In 1919, the British government massacred a peaceful gathering at Amritsar. Mohandas Gandhi led a powerful non-violent movement that refused to obey British laws. For example, the Salt March, 1930. In 1935, the Government of India Act gave Indians control of everything except foreign policy.

The struggle for independence and decolonisation in Africa
During the Second World War, British colonies, including Africa and India, made a significant contribution to the war effort. The empire provided over eight million men for military service and provided essential raw materials and goods to Britain. At the end of the war, colonies believed they had earnt a right to independence.

Britain faced economic problems because of the cost of the war, and it was becoming harder to run the Empire. In addition to the mounting cost of running the empire, President Roosevelt tried to encourage Britain to give freedom to its colonies in Africa. However, Britain didn't want to give up the colonies completely, so instead of granting them full freedom Britain began to introduce democracy to local areas within the colonies.

Eventually, nationalists in the African colonies felt that enough was enough and started protesting and rioting against the British. Jomo Kenyatta in Kenya and Kwame Nkrumah in the Gold Coast (now Ghana) led these protests. With all of their money problems, Britain could not afford to deal with this. Eventually, independence was granted to these colonies and, between the 1950s and 1980s, Britain lost control of all of its colonies in Africa.

Why did Britain want a empire?

1. **To get valuable raw material and riches (such as diamonds, gold, spices, sugar and tea that were found in other countries.**
2. **So it could sell goods to the people in the colonies and make money .**
3. **To become a more powerful country.**
4. **Because it thought it was the right thing to do.**

So how did Britain get its empire?

War
If Britain won a war against another country, it could often take any land the other country owned around the world. British victories in war were how Canada and Islands in the Caribbean such as Tobago and St Lucia became part of the Empire.

Discovery
Occasionally, explorers would fins land and just claim it for Britain. That happened in 1770 when Captain James Cook sailed to Australia. To strengthen the claim British settlers went there to build colonies. The people who already lived there (the indigenous people) were ignored.

Settlers
Sometimes British people would go to another part of the world and start living there. They might look for new business opportunities or be running away from ill treatment they received in their country as a result of their religion. This is how large parts of the American east coast became part of the British Empire.

Trade
When British companies went to trade in some places, they slowly took over large areas. The British government sometimes sent soldiers to support companies by keeping order, guarding trading settlements and controlling the local people. This happened in India and parts of Africa for many years form the 1600s.

Year 8- Summer Term
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Case Study: Britain in India
From 1757, Britain increased its control of India through the East India Company.

- From 1858 onwards, the British government directly ruled India, and it became known as the British Raj.
- Many Indians suffered from extreme poverty and famines during British rule.
- The British government and British individuals gained a lot of wealth from trade with India, which they used in part to fund the Industrial Revolution.
- On 13 April 1919, over 10,000 men, women and children gathered in an enclosed park in Amritsar, without warning, a British general, Colonel Dyer, had his troops block the only exit and shoot into the unarmed crowd.
- It was estimated that over 350 people were killed, with over a thousand more injured.
- Reports of the massacre spread across the world, and calls to give India its independence began to grow.
- In 1930, Mohandas Gandhi led Salt March protest which led to the British Government admitting they would need to listen to some of the requests of Indian protestors.
- Due to Ghandi's ongoing efforts and 'dominion status' being offer to India in exchange for soldiers; Britian had mostly lost control of India by the end of WW2.

India before Britain:
Before the British occupation, India was a culturally and economically prosperous civilization. It was home to the oldest university in the world and produced countless thinkers, philosophers, poets, and scientists.

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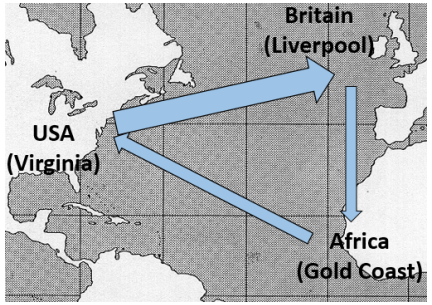
Year 8- Summer Term
The Slave trade

What was the Triangular Slave Trade?

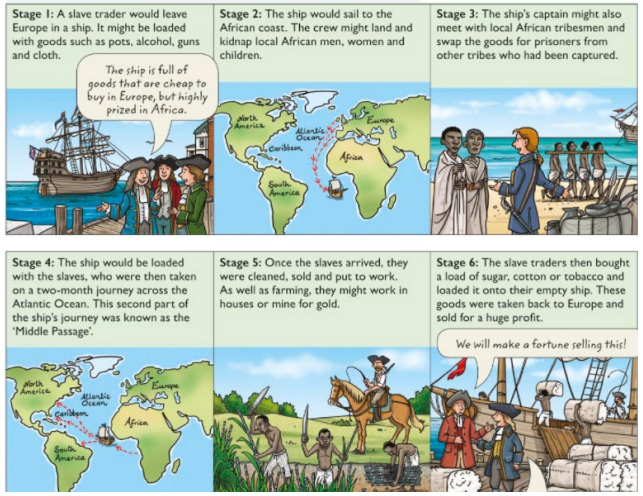
The slave trade began with Portuguese (and Spanish) traders, taking enslaved West African (and some Central African) people to the American colonies in the 15th century. British sailors became involved in the 16th century. The slave trade made profit for those who sold enslaved people. Therefore, they often ignored the fact it was inhuman and unfair.

Between 1532 and 1832, at least 12 million African people were enslaved and taken to the Americas, and at least a third of them were taken in British ships. For the British enslavers it was a three-legged journey called the 'triangular trade':

- British enslavers sailed from ports including Liverpool to West Africa. It was there that West Africans were exchanged for goods such as brandy and guns.
- Those enslaved people were then taken via the 'Middle Passage' across the Atlantic for sale in the West Indies and North America. As many as 2 million enslaved people died during the journey due to the terrible conditions on board the ships.
- British enslavers sold the enslaved people in the West Indies and North America. They brought a cargo of rum, sugar, and other raw or goods back to England to sell.



The Middle Passage



The slave ship sailed across the Atlantic from Africa to the West Indies – this leg of the voyage was called the 'Middle Passage'.
Journeys lasted from six weeks to several months, depending on the weather. The ships were often too small to carry the hundreds of enslaved Africans on board. Those enslaved were tightly packed into cramped spaces below deck with one person's right leg chained to the left leg of another person.
Conditions on the ships were terrible, and many of those enslaved died from diseases such as smallpox. As many as 2 million died during the journey via the Middle Passage.
In the West Indies, the enslaved people were sold at an auction called a 'scramble.'
Working conditions on plantations were horrific. To maximise profits with crops such as sugar, shift work was developed and violence was used. The selling price of an enslaved person in the West Indies in 1700 was £20, so the trade was very profitable for enslavers. Some ships, but not all, then loaded up with sugar and rum to sell in Britain, before making the voyage back home.

Slave Resistance

Slaves took drastic and dangerous actions to escape slavery, such as:

- Murder
- Desertion
- Revolt

For white slave owners, the threat of revolt was a problem. Resistance by slaves was costly as it affected production. It was also dangerous, the slaves outnumbered their white masters.

Why was Slavery abolished?

Slavery wasn't making as much money as it used to:
In the 1770s the price of sugar dropped. Many British plantations in the Caribbean couldn't make a profit and closed. With fewer plantations, fewer slaves were needed. In 1771, plantation owners in Barbados bought 2728 slaves. The following year they bought none. So with fewer people making profit, there were fewer people to argue for keeping the slave trade. Also, some people claimed that enslaved people didn't work as hard as people who got paid to work. They said slaves had no reason to work hard as because they didn't get any rewards.

Enslaved people helped end slavery:
In 1791, the enslaved people on the Saint- Domingue rebelled, killed many plantation owners and set fire to the fields. Led by a former slave, Toussaint L'Ouverture, they kept control of the island despite attacks from French and British soldiers. In 1804, the island was renamed Haiti, and the people declared independence and outlawed slavery. Plantation owners throughout the Caribbean were terrified that rebellion would spread. A common racist view at the time was that Africans were inferior to Europeans and that their natural position was to be following orders. What happened in Haiti had proved this argument was wrong.

The racists were proved wrong
People thought that slavery was acceptable. But enslaved people who lived in Britain got the chance to prove these attitudes wrong. In Britain there were no laws that said slavery was illegal, but none to say it was legal either. Some slaves, helped by anti – slavery lawyers, went to court to claim their freedom. Some judges were impressed by their arguments and allowed them to go free. One former slave Olaudah Equiano campaigned to convince British people that the slave trade was wrong. After he bought his freedom he wrote his life story. This was widely read and turned many British people against slavery. The fact he was intelligent made nonsense out of the claims that Africans were inferior.

Anti – slavery campaigners
Some people believe it was the actions of some Europeans that had most impact. Granville Sharp helped former slaves in court cases against their old masters and helped bring the injustice of slavery to public attention. In 1787, a group of strict Christians formed the Society for the Abolition of the Slave Trade. This group, including sharp and Thomas Clarkson, collected evidence of the horrors of slavery. The campaigners, who believed slavery went against Christs teachings, used the evidence to collect signatures from the public. They also convinced politician William Wilberforce to make speeches against slavery in Parliament. Between 1789 AND 1806, Wilberforce made many long speeches in Parliament calling for a law to end slavery.

Year 8- Summer Term
The Industrial Revolution

The Industrial Revolution

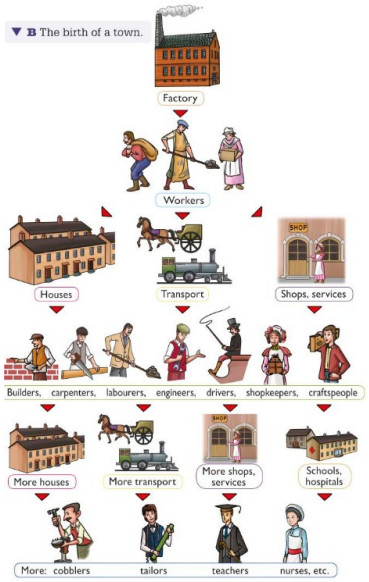
The Industrial Revolution marked a period of development in the latter half of the 18th century that transformed largely rural, societies into industrialized, urban ones. Goods that had been crafted by hand started to be produced in mass quantities by machines in factories, thanks to the introduction of new machines and techniques in textiles, iron making and other industries. Fuelled by the use of steam power, the Industrial Revolution began in Britain and spread to the rest of the world, by the 1830s/40s.

Britain had a history of producing textiles like wool and cotton. Prior to the Industrial Revolution, work was performed in small workshops or homes by individual spinners. Innovations like the flying shuttle and spinning jenny made weaving cloth and spinning yarn much easier. Producing cloth became faster and required less time and human labour.

More efficient, mechanized production meant Britain's new textile factories could meet the growing demand for cloth. In addition, the iron industry adopted new innovations, enabling Britain's iron and steel production to expand in response to the growth of the railroad.

Growth of Towns

The new factories pulled people into towns from the countryside, with the promise of regular work for all the family and good wages. Factory owners built houses for their workers to rent, and people began to set up shops and inns so the workers could buy food and drink. Soon, roads were built with churches and schools. These places needed shopworkers, teachers and nurses. As well as builders, carpenters and labourers to build them. And these people needed more houses. Before long, places that were once tiny villages had grown into large towns.



Key concepts	
Science and technology	The development of understanding to reason and explain events. This was important for the Industrial Revolution as it was a time of invention and new ways of thinking.
Revolution	A revolution is a time of rapid change. This was a revolution in technology, where people lived, how they lived and production.
Reform	Changes to the law and society to improve peoples lives. The factories and mines that people worked in were so dangerous that the government had to change the law to protect them. This was one of the first times the government had gone against business owners and the rich.

Factory conditions

Working in a factory was difficult:

1. Work started at 5.30 am, Monday to Saturday. Sunday was a short day (4-6 hours of cleaning) Some children spent years lifting heavy baskets.
2. Factory rules were strict. Workers were fined if they broke them. This could be up to half a days pay.
3. Workers weren't just fined or sacked for breaking rules, they were sometimes beaten with sticks or whipped.
4. Workers would get a short break at 8.00am and another at lunchtime.
5. A 12 hour working day was common, but at busy times it could be as long as 14 or 15 hours.
6. The children that lived with their parents earned about half the amount women did. It was cheaper to employ women and children than men. Pauper apprentices worked for no wages but were given food, clothing and shelter.
7. Pauper apprentices worked in shifts – some in the day and others at night.

Key words / terms	
Domestic system	When skilled workers worked from home making products
Factory	A building for the new machines. At first powered by water-wheel and later by steam. They had children, women and men working in them with terrible conditions
Population	The number of people in an area. The population changed during the Industrial Revolution with people leaving the countryside to go to towns and cities
Canals	Built to move goods from factories to towns and cities
Railway	Spread across the country to move goods and people.
Pauper apprentice	An orphan who was sent to work in a factory
Black gold	Another name for coal. It was vital for steam power. People worked in mines to get coal.

Impact on Transport and Communication

Roads
General Wade, Jack Metcalf, Thomas Telford and John Macadam developed better roads, with firm foundations, drainage and a smooth surface.
Ever since the 17th Century, Turnpike Trusts were set up to improve main roads, for which a toll was charged. In the early 1800s, investment in Britain's roads was more than £3 million a year.
Between 1803 and 1821, Thomas Telford alone built 1000 miles of road, including 1000 bridges. His greatest achievement was the London–Holyhead road (1815–1826). However, others had already been building new roads over the past several hundred years.

Canals
Some people argue that the first modern canal was the Sankey Brook Navigation. It was used to transport coal which links directly to the Industrial Revolution. Others say it was the Bridgewater Canal built by the Duke of Bridgewater in 1761. About £20 million was invested in canal-building between 1755 and 1835. There was 'Canal Mania' in the 1790s and famous canal-builders include James Brindley and Thomas Telford.
The fact that more money was now spent on canals could be seen as a natural development as the country gets richer and trade is more necessary.
By 1850, the canal network covered 4,000 miles.
However, canals had existed long before this period. The Exeter Canal had been built way back in 1566. It is the viewpoint of some that the developments made during the Industrial Revolution were no different to those made beforehand.

Railways
The first railway was the Stockton and Darlington Railway (1825). George Stephenson built the Rocket (1829). Significant engineering achievements included the London Underground (1863) and the Forth Bridge (1890).
There was a 'Railway Mania' in the 1840s. £3 billion was spent building the railways between 1845 and 1900.
In 1870, 423 million passengers travelled on 16,000 miles of line.

Year 8- Summer Term
The Suffragettes

The Suffragettes

Although there had been some advances in women's rights, women were not equal to men in the 19th century. In particular, they did not have the vote in Parliamentary elections.

Campaign groups
In 1897, Millicent Fawcett organised the National Union of Women's Suffrage Societies (NUWSS – the Suffragists) to campaign peacefully for the vote.
In 1903, the Women's Social and Political Union (WSPU – the Suffragettes) was formed, led by Emmeline Pankhurst. The Suffragettes used violent protest, famously breaking windows and chaining themselves to railings.

Despite all the campaign efforts, women had not won the vote by 1914:

- Parliament rejected every bill to give women the vote. Male members held strong views about the weakness of women.
- The Women's National Anti-Suffrage League (1908) campaigned against votes for women.

When the First World War broke out, the Suffragettes and Suffragists stopped most of their campaign. However all this started to change after the First World War. During the war women contributed greatly to the war effort and kept the country going while the men were away. In 1918, the government passed the Representation of the People Act giving the vote to all men over the age of 21 and women over the age of 30 who were householders or married to a householder.

The campaign for women's suffrage finally succeeded in 1928, when women were granted exactly the same voting rights as men.

The campaign

In 1918, the Representation of the People Act gave the vote to all men over the age of 21 and women over the age of 30 who were householders or married to a householder. In 1928, women over the age of 21 were given the same voting rights as men.

Historians suggest the following reasons for this:

- During the war, the NUWSS continued to write to Members of Parliament (MP), asking for votes for women.
- During the war, women worked as coal miners and road-layers. They worked in munitions factories. They served in France as nurses. Many MPs said that they had shown themselves equal to men and were 'worthy' of the vote.
- Millions of working class men – including soldiers fighting in France – still did not have the vote. The government wanted to give them the vote, but they could not give men the vote and not women.
- In 1918, many of the 'old guard' MPs who had opposed votes for women had been replaced by younger men who supported it.

Key Term	Definition	Contextual Sentence
Feminist	Someone who believes men and women should be socially, politically and economically equal.	It was important that the feminist movement maintained their desire to make a difference to all the women in the nation.
Parliament	The law-making body of a country.	Parliament was the place where the feminists needed to be heard
Suffragette	Member of the Women's Social and Political Union (WSPU) in the early 20th century, which used civil disobedience and violent protest to fight for the right for women to vote.	The suffragettes had clearly made their mark in their protesting methods
Suffragist	Member of the National Union of Women's Suffrage Societies (NUWSS), which campaigned peacefully to win women the right to vote.	Although more peaceful, the suffragist helped increase people's awareness of the campaign for suffrage.

Year 8- Summer Term
Jack the Ripper

Summary

London in 1888 was a divided city. Just like today, the West End was the wealthiest area, and the East End was much poorer. Jack the Ripper operated in the East End, Whitechapel. The smoke and stinking gas fumes choked the streets so badly that at times it was not possible to see your hand in front of your face . Housing was disgusting. There was no sanitation and sewage ran openly through the overcrowded, maze-like streets. There was little work available for women and no social security for women who were unemployed. In the autumn of 1888 five women in Whitechapel became victims of the killer we call 'Jack the Ripper'.

On the 31st August 1888, a 43 year old mother of five children named Mary Ann Nichols was found murdered. She had been killed with a knife. A week later Annie Chapman was found dead not far from the first murder. She had also been killed with a knife.
It didn't take the police long to realise that they had a violent serial killer on their hands. On 27th September 1888, the central News Agency received a letter boasting of the killings and teasing the police for not catching the killer. The agency passed the letter to the police, and within days, details of murders appeared in newspapers all over Britain. The press didn't care whether the letter was from the killer or not, they knew that descriptions of crimes sold newspapers. They even began using the name that the writer of the letter had given himself, Jack the Ripper.

On the 30th September, two more women were found murdered. Elizabeth 'Long Liz' Stride and Catherine Eddowes were killed within minutes of each other.

On the morning on 1st October, the same news agency received another letter boasting of the killings. Experts thought the same person had written both letters. However they had no way of knowing if they had been written by the killer or not. On 16th October, the police received yet another letter in an envelope containing a note. Police were unable to tell if the letter came from the same person as the first two letters. However detectives felt that different people wrote them.

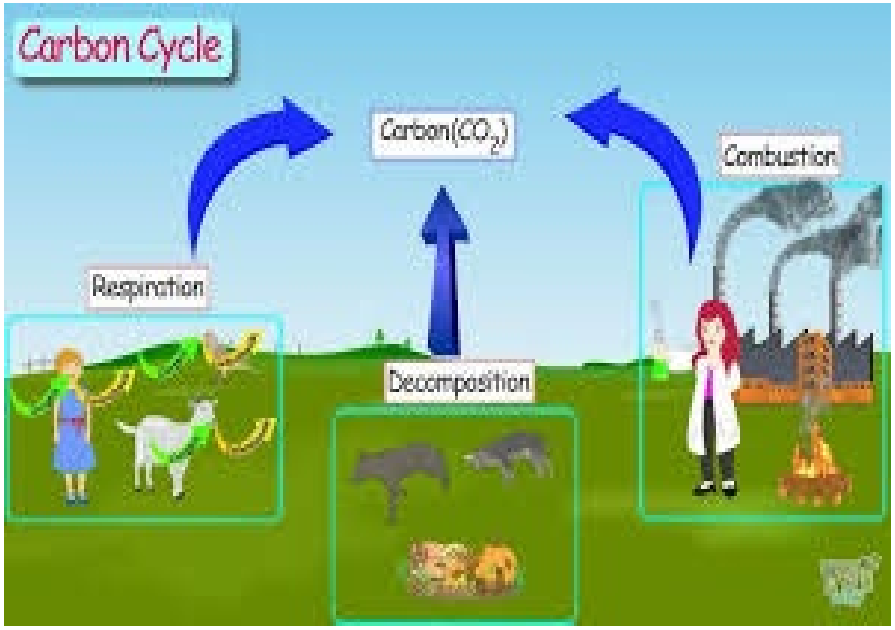
On 9th November, a fifth woman, Mary Jane Kelly was murdered. She was the only Ripper victim to be found indoors. Police found Kelly's clothes folded on a chair and her boots in front of the fire. By mid November news of the killings had appeared in newspapers as far as Australia and Mexico. Even Queen Victoria took an interest and urged the police to catch the killer.

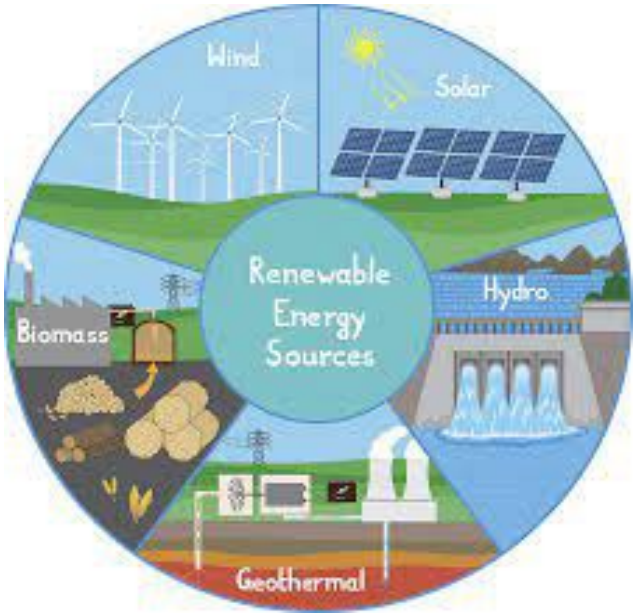
Mary Jane Kelly is considered the Ripper's final victim. However some people think there were other murders before and after. In fact, the reporters and some policemen at the time thought Jack the Ripper might be responsible for as many as 13 deaths. However, the detectives in charge of the case decided to keep the figure at five. The Jack the Ripper murder case remains unsolved.

▼ **SOURCE D** A cartoon from *Punch* magazine in September 1888, showing a policeman wearing a blindfold. He is surrounded by criminals who he is trying (unsuccessfully) to catch. It highlights what many people then thought – that the police were very poor at catching criminals.

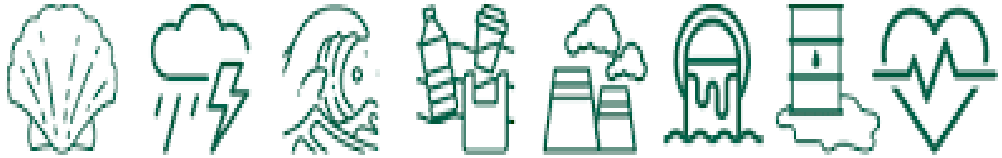
BLIND-MAN'S BUFF.

Year 8 Geography Knowledge Organiser – Carbon, Water and Energy





Fossil Fuel Impacts Include:



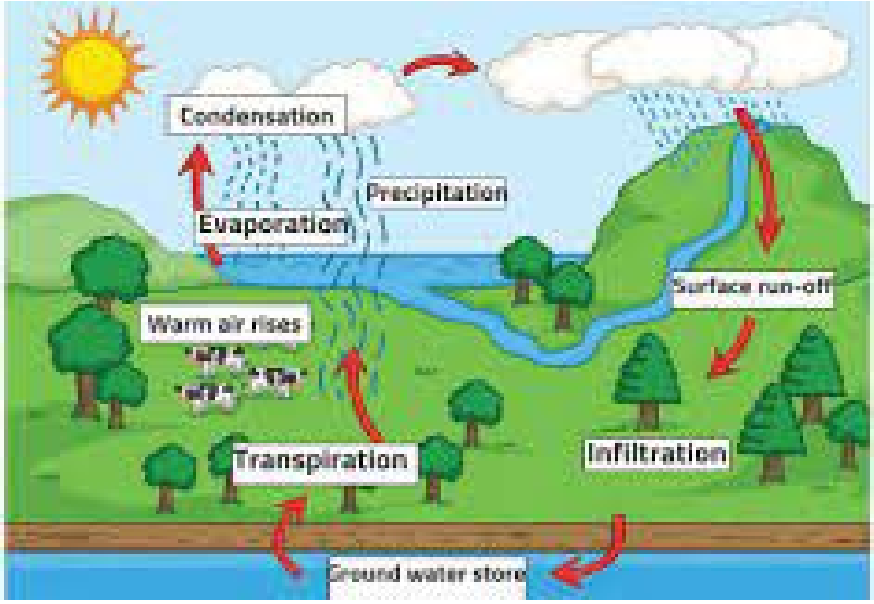
Ocean Acidification | Extreme Weather | Sea Level Rise | Plastic Pollution | Air Pollution | Water Pollution | Oil Spills | Health Issues

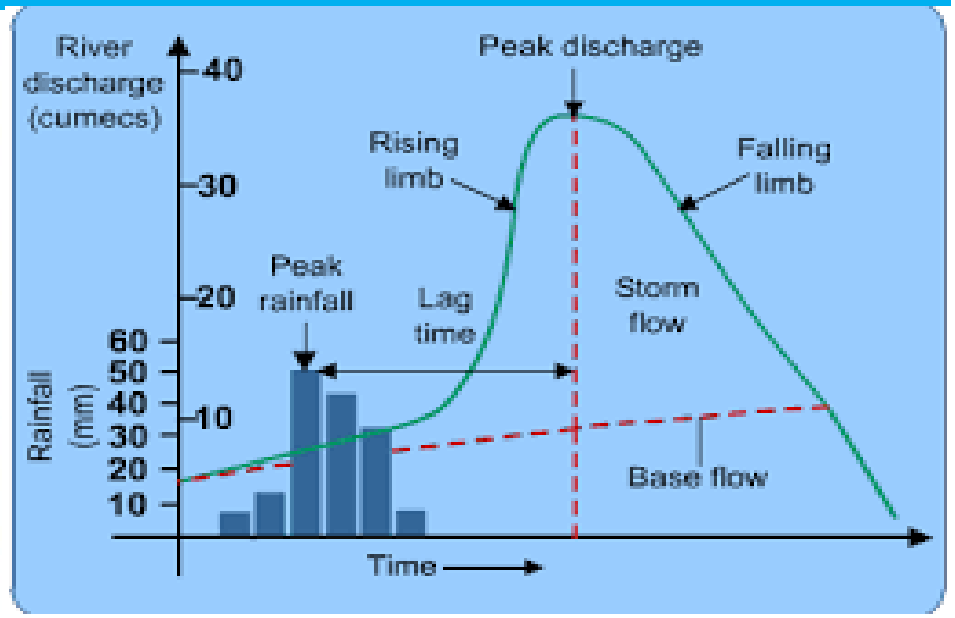
Renewable Energy

Advantages	Disadvantages
Easily Regenerated [2]	Weather Dependency [7]
Boost Economic Growth [3]	High Installation Cost [8]
Easily Available [4]	Noise caused by Wind Energy [9]
Support Environment [5]	Fluctuation problem (Solar) [10]
Low Maintenance Cost [6]	Intermittency Issue (Wind) [11]

GEOGRAPHY

Year 8 Geography Knowledge Organiser – Carbon, Water and Energy





FIVE TYPES OF DROUGHT

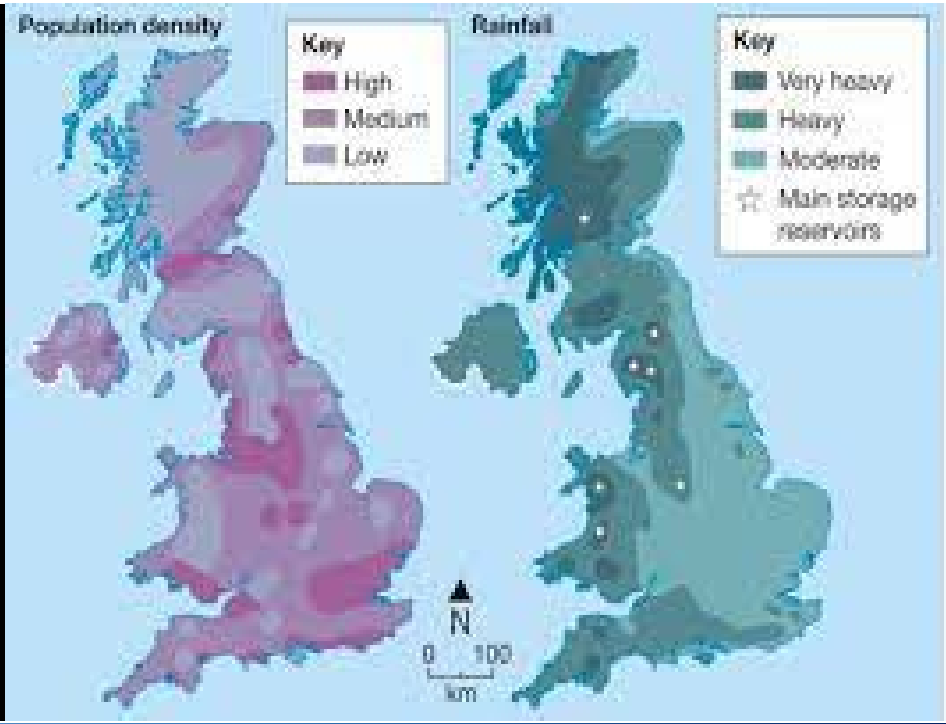
1 **METEOROLOGICAL** drought refers to an extended period of dry weather patterns.

2 **HYDROLOGICAL** drought refers to low water supply in our rivers, lakes, aquifers, and other reservoirs that often follows meteorological drought.

3 **AGRICULTURAL** drought occurs when a water shortage significantly damages or destroys agricultural crops.

4 **ECOLOGICAL** drought is the most recently defined type of drought and refers to widespread ecological damage caused by the lack of soil moisture.

5 **SOCIOECONOMIC** drought refers to when a water shortage affects the supply and demand of drought commodities, such as water, food grains, and fish.



Year 8 Geography Knowledge Organiser – Vocabulary

Key Term	Definition	Contextual Sentence
Carbon Cycle	The process that moves carbon between plants, animals and the atmosphere.	The biological carbon cycle is comparatively quick.
Renewable Energy	energy that comes from a source that won't run out.	The cost of solar, wind, and other forms of renewable energy is getting cheaper
Fossil Fuel	Originate from plants and animals. Example: Coal, Oil and Gas.	Natural gas is a fossil fuel.
Wind energy	A form of renewable energy that uses wind power to generate electricity.	In the past decade, wind power has become the most popular renewable source.
Water Cycle	Shows the continuous movement of water within the Earth and atmosphere.	Precipitation is the most obvious stage of the water cycle.
Storm hydrograph	Shows the change in river flow from the start of a storm until the end.	Storm hydrographs' shape depends on physical features of drainage basins.
Drought	Long period of dry weather that occur anywhere in the World.	The drought is worst in the central African states.
Flood	An overflow of water on to dry land.	A flood covered the whole area.

Spanish: Knowledge Organiser Year 8 Term 3

Unit 5: adictos a la moda

5.1 Esto es lo que llevo
This is what I wear

la ropa	*clothing*
llevar	*to wear*
¿Qué llevas?	*What do you wear?*
llevo…	*I wear…*
los calcetines	*socks*
la camisa	*shirt*
la camiseta	*t-shirt*
la chaqueta	*jacket*
la corbata	*tie*
la falda	*skirt*
la gorra	*cap*
el jersey	*jumper*
los pantalones	*trousers*
el uniforme	*uniform*
los vaqueros	*jeans*
el vestido	*dress*
las zapatillas (de deporte)	*trainers*
los zapatos	*shoes*
bonito/a	*pretty*
cómodo/a	*comfortable*
elegante	*smart, stylish*
guay	*cool*
tradicional	*traditional*
este/esta	*this*
estos/estas	*these*
ese/esa	*that*
esos/esas	*those*
aquel/aquella	*that (further away)*
aquellos/aquellas	*those (further away)*

5.2 Estrellas con estilo
Stars with style

los estampados	*patterns*
amplio/a	*baggy*
corto/a	*short*
de cuadros	*checked*
estampado/a	*patterned*
estrecho/a	*tight*
de flores	*floral*
hortera	*tacky*
largo/a	*long*
liso/a	*plain*
de lunares	*spotted*
de rayas	*striped*
apropiado/a	*appropriate*
distinto/a	*different*
la blusa	*blouse*
la cinta para el pelo	*headband*
el cinturón	*belt*
el estilo	*style*
el pijama	*pijamas*

Gramática:

Demonstrative adjectives:

This	*este (m)/ esta (f)*
These	*estos (mpl)/ estas (fpl)*
That	*ese (m)/ esa (f)*
Those	*esos (mpl) / esas (fpl)*
That (over there)	aquel (m) / aquella (fpl)
Those (over there)	aquellos (mpl)/ aquella (fpl)

5.3 De tiendas *At the shops*

la carnicería	*butcher's*
la chocolatería	*chocolate shop*
la joyería	jewellery shop
la panadería	*baker's*
la papelería	*stationery shop*
la perfumería	*perfume shop*
la pescadería	*fishmonger's*
la tienda de disfraces	*fancy dress shop*
la tienda de ropa	*clothes shop*

Gramática:

Ordinal numbers:

First	*primero*	Forth	*cuarto*
Second	*segundo*	Fifth	*quinto*
Third	*tercero*		

Spanish: Knowledge Organiser Year 8 Term 3

Unit 5: adictos a la moda

5.4 En el centro comercial In the shopping centre

los centros comerciales	*shopping centres*
por Internet	*online*
las tiendas pequeñas	*small shops*
la agencia de viajes	*travel agency*
las alfombras	*rugs*
la alimentación	*food*
la azotea	*rooftop*
el juguete	*toy*
la juguetería	*toy shop*
el hogar	*homewares/home*
la moda deportiva	*sportswear*
los muebles	*furniture*
la planta baja	*ground floor*
la relojería	*watch shop*
el anuncio	*advert*
devolver	*to return*
en línea	*online*
hacer clic	*to click (the mouse button)*
la oferta	*offer*
el ratón	*mouse*
la variedad	*variety*
primero	*first*
segundo	*second*
tercero	*third*
cuarto	*fourth*
quinto	*fifth*
sexto	*sixth*
séptimo	*seventh*
octavo	*eighth*
noveno	*ninth*
décimo	*tenth*

Unit of work 5: language in context

Gramática:

Present continous tense:
Describes an action in progress

Estoy habl**ando =** I am talking
Estás com**iendo =** You are eating
Está escrib**iendo =** He/she is writing

Conditional tense:
translates as "would"
Using estar + present participle Add the ending to the infinitive

I =	…ía
you =	… ías
He/she/it =	… ía
We =	… íamos
You all =	… íais
They =	… ían

Saying what I wear	Llevo una camisa y unos vaqueros Son cómodos y elegantes	I wear a shirt and jeans They are comfortable and Smart
Giving more detail	Llevo una chaqueta **de rayas** Lleva un vestido **de flores**	I wear a **striped** jacket She wears a **floral** dress
Saying what someone is wearing	Mi amiga **está llevando** una camiseta **Estoy llevando** unos zapatos	My friend **is wearing** a t-shirt **I am wearing** some shoes
Name types of shops	Tengo que ir a l**a panadería**	I have to go to the **bakers'**
Name departments	La moda mujer y los muebles	Women's fashion and furniture
Saying what is on different floors in a store	**En la planta baja** está la juguetería **En la primera plata** está el hogar	**On the ground floor** is the toy store **On the first floor** is the homeware

Unit 6: Yo y mi mundo

6.1 Lo que hago por las mañanas
What I do in the mornings

la rutina	*routine*
desayuno	*I have breakfast*
me despierto	*I wake up*
me ducho	*I have a shower*
voy al instituto	*I go to school*
me lavo los dientes	*I brush my teeth*
me levanto	*I get up*
me peino	*I brush/comb my hair*
me visto	*I get dressed*

6.2 Lo que hago por las tardes y por las noches
What I do in the afternoon and evenings

Me acuesto	*I go to bed*
me cambio de ropa	*I get changed*
ceno	*I have dinner*
hago los deberes	*I do homework*
meriendo	*I have a snack(afternoon)*
paseo al perro	*I walk the dog*
me relajo	*I relax*
vuelvo a casa	*I return home*
cuando llego a casa	*when I arrive home*

Unit of work 6: Key language in context

I can describe my morning routine	Por la mañana me levanto y desayuno.	I get up and I get dressed
	Inmediatamente me ducho de prisa.	I mmediately I get showered quickly
	Nunca me peino.	I never brush my hair
I can describe my evening routine	Por la tarde ceno y me relajo.	In the evening I have dinner and I relax
	Si tengo tiempo hago los deberes.	If I have time I do my homework
	Siempre que puedo paseo al perro.	Whenever I can I walk the dog
	Me acuesto a las diez.	I go to bed at ten o'clock.

French: Knowledge organiser Year 8 Term 3

Unit of work 5: En pleine forme!

5.1 Tu manges bien? *Do you eat well?*

de l'ananas	pineapple
du beurre	butter
des carottes	carrots
des céréales	cereal
du coca	Coke, Cola
de l'eau	water
du fromage	cheese
des fruits	fruit
des gâteaux	cakes
des glaces	ice creams
de l'huile	oil
du lait	milk
des légumes	vegetables
des œufs	eggs
du pain	bread
du poisson	fish
des pommes de terre	potatoes
du poulet	chicken
du riz	rice
du sucre	sugar
de la viande	meat
du yaourt	yoghurt
des produits laitiers	dairy products
des matières grasses	fats
un repas	a meal

5.2 Comment vivre sainement? *How to live healthily?*

Que fais-tu pour vivre sainement ?	What do you do to live healthily ?
Je fais beaucoup de sport.	I do a lot of sport.
Je mange au moins cinq fruits et légumes par jour.	I eat at least five fruit & vegetables per day.
Je mange à des heures régulières.	I eat at regular times.
Je mange équilibré/sainement.	I eat a balanced diet/healthily.
Je bois un litre et demi d'eau par jour.	I drink 1 ½ litres of water per day.
Je dors huit heures par nuit.	I sleep eight hours per night.

5.3 Attention: danger! *Warning: danger!*

Qu'est-ce que tu as mangé et bu hier ?	What did you eat and drink yesterday ?
J'ai mangé/bu/pris …	I ate/drank/had …
… du fromage blanc.	… fromage frais.
…un gâteau au chocolat.	… a chocolate cake.
… un hamburger.	… a hamburger.
… du jambon.	… ham.
… un jus d'orange.	… an orange juice.
… des pâtes.	… pasta.
… une pomme.	… an apple.
… un steak-frites.	… steak and chips.
… une tarte au citron.	… a lemon tart.
… du thé.	… tea.
au petit déjeuner	for breakfast
au déjeuner/dîner	for lunch/dinner
au goûter	for an afternoon snack
C'est trop gras/sucré.	It contains too much fat/sugar.
Il y a des risques d'obésité/de surpoids.	There are risks of being obese/overweight.
C'est bon/mauvais pour …	It is good/bad for …
trop de …	too much/many …
assez de …	enough …
plus de …	more …
moins de …	less/fewer …

5.4 Ma vie changera! *My life will change!*

Qu'est-ce que tu feras pour être en forme ?	What will you do to be healthy ?
Je mangerai plus de fruits et de légumes.	I'll eat more fruits and vegetables.
Je mangerai moins de fast-food.	I will eat less fast food.
Je boirai moins de boissons sucrées.	I'll drink fewer sugary drinks.
Je ferai plus de sport.	I will do more sport.
Je jouerai au basket.	I'll play basketball.
J'irai à l'école à vélo.	I'll go to school by bike.
Je dormirai huit heures par nuit.	I'll sleep eight hours per night.
Je regarderai moins la télé.	I'll watch less TV.

C’est bon pour la santé? ***Is it good for your health?***

Il est essentiel/important/nécessaire de manger …	It is essential/important/necessary to eat …
Il est essentiel/important/nécessaire de boire …	It is essential/important/necessary to drink …
Il est essentiel/important/nécessaire de faire …	It is essential/important/necessary to do …
C’est/Ce n’est pas bon pour …	It is/isn’t good for …
… le cœur/le cerveau.	… the heart/the brain.
… les cheveux/les dents.	… the hair/the teeth.
… les muscles/les os.	… the muscles/the bones.
… la peau/les yeux.	… the skin/the eyes.
… la santé.	… the health.

Unit of work 5: key language in context

Say what you eat and drink:	Je mange de des céréales. Je bois de l’eau. Il faut manger au moins trois fruits par jour.	*I eat cereal.* *I drink water.* *You must eat at least 3 fruits per day.*
Say why we must eat healthily:	Il est essentiel de manger des légumes. C’est bon pour la santé. Il est important de rester en forme.	*It is essential to eat vegetables. It’s good for the health.* *It is important to stay fit.*
Discussing healthy lifestyles:	Pour vivre sainement, je fais beaucoup de sport. Je bois un litre d’eau par jour. Je joue au foot toutes les semaines. Je mange équilibré et je bois beaucoup d’eau. Je pense que je mange assez bien.	*To live healthily I do lots of sport.* *I drink one litre of water per day.* *I play football every week.* *I eat a balanced diet and I drink a lot of water.* *I think that I eat quite well.*
Say what you ate/drank (in the past):	J’ai mangé un gâteau au chocolat. Hier, j’ai bu un jus d’orange. Hier, j’ai pris du fromage blanc au petit déjeuner. Je n’ai pas mangé au déjeuner.	*I ate a chocolate cake.* *Yesterday I drank a glass of orange juice.* *Yesterday, I had fromage frais for breakfast.* *I didn’t eat lunch.*
Say what you will do to stay healthy:	Pour rester en forme, je ferai plus de sport. Je mangerai moins de fast-food car il y a trop de graisses. Je mangerai plus de légumes car il y a des vitamines.	*To stay fit, I will do more sport.* *I will eat less fast food because there is too much fat in it.* *I will eat more vegetables because there are vitamins in them.*

Unit of work 6: Rendez-vous

6.1 Alors cette fête? *Organising parties*

pour organiser la fête, on va…	to organise the party, we will…
envoyer les invitations	send invites
acheter la nourriture	buy food
télécharger de la musique	download music
décorer la salle	decorate the room
préparer le buffet	prepare the buffet
après, on va nettoyer	after, we will tidy up
c'est une fête pour célébrer…	it's a party to celebrate…
c'est samedi soir	it's Saturday evening
c'est à partir de 18 heures	it starts at 6pm
ça va être chez moi	it will be at my house
ça va ètre au collège	it will be at school
tu peux apporter…	you can bring…
je vais passer te chercher à 17 heures	I'll call round for you at 5pm

6.3 Les festivals, j'adore. *I love festivals*

tu es allé(e) à un festival ?	did you go to a festival?
où es-tu allé(e) ?	where did you go ?
je suis allé(e) au/à la..	I went to…
J'y suis allé(e) avec…	I went there with…
c'était l'année dernière	it was last year
c'était le week-end dernier	it was last weekend
je suis parti(e)/ arrivé(e)	I left/arrived
On y est restés tout le week-end	we stayed there all weekend
j'ai dansé/chanté/ mangé	i danced/sang/ate
Je suis rentré(e)	I came home
c'était fantastique	it was fantastic
il y avait un grand feu d'artifice	there was a big fireworks display
je vais y retourner l'année prochaine	I'll go again next year

6.5 Calendrier

la Saint-Valentin	St Valentine's I
la victoire de la Seconde Guerre mondiale	victory of WW2
l'Armistice de la Première Guerre mondiale	Armistice Day WW1
la Fête nationale française	Bastille Day
la Fête du travail	Labour day

Unit of work 6: key language in context

Say what you will do to organise a party:	pour organiser la fête, on va acheter la nourriture et décorer la salle.	*To organise the party, we will buy food and decorate the room.*
Say why you're having a party:	C'est une fête pour célébrer mon anniversaire.	*It's a party to celebrate my birthday.*
Say when and where your party will be:	Ça va être chez moi et c'est samedi soir.	*It will be at my house and it's on Saturday evening.*
Say what festival you went to (past tense):	je suis allé à la Fête nationale française et c'était l'année dernière. C'était fantastique et il y avait un grand feu d'artifice.	*I went to the Bastille Day and it was last year.* *It was fantastic and there was a big firework display.* . .