Great in name, greatest together

GreatSankey
High School

8

Knowledge Organiser
Spring Term
2023/24
Year 8

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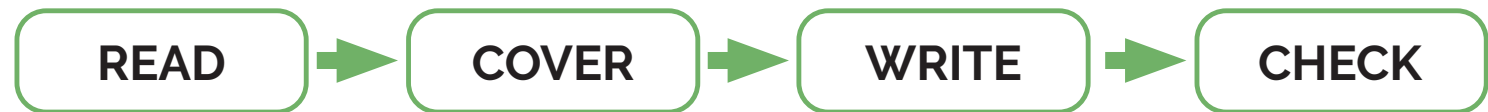
"Thinking well requires factual knowledge that is stored in our long-term memory"

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 backbone 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

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.	x	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

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	This is where you have whole number values in your 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!	x	4 and 6 figure references used across all topics to locate places from a map.	Measurements and accuracy are really important when studying map skills, especially when looking at scale and distance.

Tier 2 Vocabulary

	Year 8 Term 2	Definition	Contextual Sentence
1	adequate	Satisfactory or acceptable.	Allow adequate time to tidy up.
2	apparent	Clearly visible or understood; obvious.	Romeo learns of Juliet's apparent death from his servant.
3	approximated	Estimated / calculated.	The area of the rain forest lost was approximated three years ago.
4	commitment	Being dedicated to a cause, activity.	Certain religions have a commitment to pray several times a day.
5	communication	Exchanging information by speaking, writing etc.	The battle was lost due to communication issues with the troops.
6	compensation	Something (usually money) awarded to someone in for loss, suffering, or injury.	Germany had to pay forms of compensation to some countries after World War 2.
7	constraints	Limitations or restrictions.	Consider time constraints when planning your menu.
8	contrast	Being different from something else nearby.	The contrast is brought across through imaginative use of light and colour.
9	convention	A way in which something is usually done.	In those days, outdoor plumbing was the convention.
10	corporate	Relating to a large company or group.	The football tournament had corporate sponsorship.
11	despite	Without being affected by; in spite of.	Despite having a smaller army, the king won the battle.
12	dimensions	A measurable size.	The dimensions of the box are large enough to hold the items.
13	ensure	To make certain.	You must ensure that the date and title are underlined with a ruler.
14	error	A mistake.	If you make an error, put a single line through it.
15	funds	A sum of money.	There are enough funds to take the team to the match.
16	hypothesis	A proposed explanation.	Einstein extended his hypothesis to include gravity.
17	implementation	The process of doing something.	Implementation of the new system will start today.
18	implications	Conclusions that can be made, although it may not be stated.	The findings have important implications for global warming.
19	investigation	A formal inquiry or study.	We will carry out an investigation into the reaction between sulphuric acid and copper.
20	label	A small piece of paper or text attached to an object and giving information about it.	Label the diagram of the heart.
21	layer	A sheet or thickness of material, typically one of several, covering a surface or body	The Earth's crust is made up of several different layers.

22	minorities	The smaller number or parts.	It is a good thing that minorities are well represented.
23	obvious	Easily seen or understood.	His talent on the piano is obvious
24	option	A choice.	You have the option to play football or rugby today.
25	output (2 definitions)	The amount of something produced by a person, machine, or industry. A place where power or information leaves a system	The output is 5000 tonnes a year The output can be measured using a voltmeter.
26	overall (2 definitions)	Taken as a whole, summing everything up. A loose-fitting coat/ garment worn over ordinary clothes for protection.	Overall, living conditions for the poor were terrible at that time. It is best to wear an overall when working.
27	parallel	Lines having the same distance continuously between them.	A trapezoid has one pair of parallel sides.
28	partnership	An association of two or more people as partners / working together.	Partnerships between local businesses can help reduce waste.
29	philosophy	An attitude that acts as a guiding principle for behaviour.	His philosophy was to concentrate on revision for the next three weeks.
30	predicted	Something that is stated or estimated as likely to happen in the future.	Your predicted grade is 5 in Maths.
31	prior	Before, previously.	Prior to World War II, the events of 1914–1918 were generally known as the Great War.

32	proportion	A part, share, or number considered in comparative relation to a whole.	Add equal proportions of flour and butter and mix well.
33	published	To prepare and issue a book, journal, or piece of music for public sale.	'A Christmas Carol' is a novella by Charles Dickens, first published in December 1843.
34	registered	Entered or recorded on an official list or directory.	50 pupils have already registered their interest in the school trip.
35	removed	Taken away.	The test tube must be removed from the heat after 15 minutes.
36	resolution (2 definitions)	A firm decision to do or not to do something. The action of solving a problem	She made a resolution to get fitter. The resolution of 'A Christmas Carol' sees Scrooge changing his ways.
37	shift	To move or cause to move from one place to another.	You must shift your weight to remain balanced.
38	subsequent	Following on from.	Subsequent chapters of the book are just as exciting.
39	sum	A particular amount of money; a total	The sum needed for lunch is £5.
40	summary	A brief statement or account of the main points of something.	You must write your summary of the play for homework.
41	technical	Relating to a particular subject, art, or craft.	This invention was an important technical achievement at the time.

When the Sky Falls by Phil Earle

What is historical fiction?

Historical fiction is a literary genre in which the plot takes place in a setting related to the past events, but is fictional. An essential element of historical fiction is that it is set in the past and pays attention to the manners, social conditions and other details of the period.

When the Sky Falls is inspired by a true story:

'As we sat, Pete told me a story about his dad during the Second War. Unable to fight because of poor health, his dad was part of poor health, his dad was part of Manchester's home guard and had been given a very specific job. Every time the air-raid siren sounded, his dad had to pick up a rifle and run to Manchester Zoo. Once there, he had to sit outside the lion's cage, his rifle trained on the animal. Why? Because if the bombers destroyed the cage and lion ran free, then his dad's mission was to shoot the animal before it went on the rampage.'

Key Characters:

Joseph: The protagonist of the story. He is a twelve-year-old boy who has been evacuated to live with Mrs F from his grandmothers.

Mrs F: The owner of the zoo and the person who takes care of Joseph during his evacuation.

Adonis: A gorilla at Mrs F's zoo that forges an important relationship with Joseph.

Historical Context:

What is evacuation?

Evacuation means leaving a place. During WW2, many children living in big cities and towns were moved temporarily from their homes to places considered safer, usually out in the countryside. The risk was incredibly high in areas such as London or other cities on the south and east coasts of Britain. Children's evacuation in WW2 was designed to protect them from the risks of aerial bombing in these cities.

In the novel, Joseph is sent to live with Mrs F. However, Joseph is sent to live in the city 'where bombers rule the sky' instead of evacuation.

What was the Blitz?

The Blitz, from the German term 'Blitzrieg' meaning lightning war, was the sustained campaign of aerial bombing attacks on British towns and cities carried out by the Luftwaffe (German Air Force).
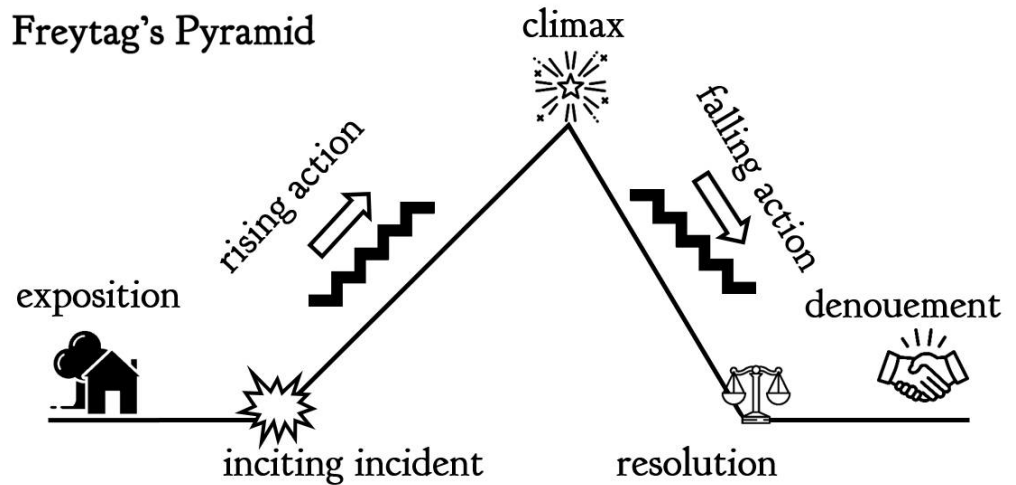
What was the job of the Home Guard?

The story was inspired by the real-life experiences of one member of the home guard in Manchester during WW2.

The Home Guard defended key targets like factories, explosive stores, beaches and sea fronts. At night they patrolled fields in which the enemy gliders or paratroops might land. No one expected them to beat well-trained German soldiers. Their job was to slow them down until the army arrived.

In the story, Mrs F and Joseph have a difficult job to do protecting the city from the animals in the zoo during the war.

Themes

- Friendship
- Death
- Loss
- Relationships
- Family
- Belonging
- Love
- Self-esteem
- Education
- Anger

Freytag's Pyramid

climax

rising action

falling action

exposition

denouement

inciting incident

resolution

Key Terminology	
Setting	The time and place in which the story takes place. Can include things like the weather, the historical period, the social structures and any other details about the surroundings.
Plot	The events and the organisation and sequencing of them that make up the story.
Theme	An underlying message or meaning conveyed by the story.
Protagonist	In Literature, the leading character or one of the major characters in a drama or narrative.
Antagonist	In Literature, the principal opponent in a drama or narrative. The word is from the Greek '*antagnistés' which means opponent or rival.*
Narrative perspective	Narrative perspective or voice, is the perspective the story is told and what is told.
Foreshadowing	A warning or indication of a future event.
Characterisation	Characterisation is the way an author describes or shows what a character is like. It refers to the set of qualities that make someone, or something, different from others.
Symbolism	A literary device in which a writer uses one thing, such as a physical object, to represent something beyond the literal meaning.

War and Conflict Poetry

What is conflict?

Conflict is serious disagreement and argument about something important. If two people or groups are **in conflict**, they have had a serious disagreement or argument and have not yet reached agreement.

Conflict is a state of mind in which you find it impossible to make a decision.

Conflict is fighting between countries or groups of people.

A **conflict** is a serious difference between two or more beliefs, ideas, or interests. If two beliefs, ideas, or interests are **in conflict**, they are very different.

Title: The title of the poem is interesting because it could suggest...Alternatively, it could make the reader think about…

Overview: On the surface, the poem seems to be about...However on further reading, it could also be about...

Organisation: The poem opens with…

There is a shift in tone when…

The poem closes with...

The poet uses rhyming couplets to draw the reader's attention to…

The poet uses blank verse suggesting...

Language: The use of imagery in the line…... suggests…
The writer's use of metaphor creates an image of….
The writer's verb/adjective/adverb/noun choice …. emphasises…
The use of the simile…. suggests...

Speaker: The poem is written from a first person/second person/third person perspective. This is significant because...

Language Technique	Definition
Alliteration	Repetition of the same letter at the start of two or more words.
Allusion	Reference to another literary work.
	Repetition or pattern of the same vowel sounds.
Connotation	Associated meaning of word.
Consonance	The partial or total identify of consonants in words whose main vowels differ.
Diction	Usually used to describe the level of formality that a speaker uses.
Extended metaphor	An extended metaphor is a version of metaphor that extends over the course of multiple lines or stanzas of prose or poetry.
Hyperbole	Exaggerated statement.
Metaphor	a metaphor is a figure of speech containing an implied comparison.
Onomatopoeia	A figure of speech where words are used to imitate sounds.
Oxymoron	Two terms that appear next to each other that contradict each other.
Pathetic fallacy	The use of weather to create mood or atmosphere.
Personification	the act of giving a human quality or characteristic to something which is not human.
Pun	a humorous use of a word or phrase that has several meanings or that sounds like another word.
Satire	The use of humour or irony to mock, ridicule or criticise.
Semantic field	Words related in meaning.
Simile	Comparing using like or as.
Sibilance	The repetition of an 's' sound in two or more words.
Synecdoche	Figure of speech in which a part is substituted for the whole.
Tone	The implied attitude of a writer towards the subject and characters of a work.
Theme	The central idea of a literacy work.

Structure	Definition
Anaphora	The repetition of the same word or phrase at the beginning of a line.
Caesura	A piece of punctuation in the middle of a line creating a pause in rhythm.
Enjambment	A line which continues, with no punctuation, into the line below.
Foot	A metrical unit composed of stressed and unstressed syllables.
Half – rhyme	An imperfect rhyme where the ending constantan sound of a word is the same as the other.
Juxtaposition	Two or more contrasted ideas placed side by side.
Meter	The measured pattern of rhythmic accents in poems.
Parallelism	The similarity of structure in a pair or series of related words/ phrase/ clauses.
Quatrian	A four-line stanza in a poem.
Refrain	A phrase, line or group of lines which repeated throughout a poem.
Repetition	A repeated word or phrase usually used to emphasise importance.
Rhyming Couplet	Two consecutive lines of poetry that rhyme.
Rhyme	Words that sound the same at the end.
Stanza	Two or more lines of poetry that form the divisions of the poem.
Form	**Definition**
Ballad	A narrative poem written in four-line stanzas, characterised by swift action and narrated in a direct style.
Blank Verse	Non-rhyming lines written in iambic pentameter.
Dramatic Monologue	A literary form where the writer takes on the voice of a character and speaks through them.
Elegy	An *elegy* is a sad poem, usually written to praise and express sorrow for someone who is dead.
Epic	A long narrative poem that records the adventures of a hero.
Free Verse	Poetry without a regular pattern of meter or rhyme.
Lyric	A poem that expresses personal and emotional feelings.
Ode	A poem written in praise or celebration of a person of a person, thing or event.
Sonnet	A fourteen line poem in iambic pentameter with a regular rhyme scheme. There are two forms of sonnet: Shakespearean and Petrarchan.

Short Stories	
Culture **Culture** is a system of shared beliefs that is used by a society in order to interact with the world, as well as with each **other**. Often, we think of the food, music, clothing, and holidays that are shared by a group as part of their **culture**. **The British culture:** The culture of the United Kingdom is influenced by the UK's history as a developed state, a **liberal democracy and a great power;** its predominantly Christian religious life; and its composition of four countries—England, Wales, Scotland and Northern Ireland—each of which has distinct customs, cultures and symbolism.	**Key terms** **Democracy: A system of government where the citizens exercise power by voting.** **Diversity: the fact of many different types of things or people being included in something; a range of different things or people.** **Equality: Ensuring that every individual has an equal opportunity.** **Discrimination: Treating others unfairly based on race, ability, gender, age etc** **Identity: The fact of being who or what a person or thing is.**
What exactly is a short story? A short story is a work of fiction that can be read in one sitting. A piece of fiction shorter than 1,000 words is considered a "short story" or "flash fiction, "and anything less than 300 words is rightfully called "microfiction." The setting of a short story is often simplified (one time and place), and one or two main characters may be introduced without full backstories. In this simplified format, every word and story detail has to work extra hard! Short stories typically focus on a single plot instead of lots of different ones, like you might see in longer works of fiction. Some stories follow a traditional narrative arc, with exposition (description) at the beginning, rising action, a climax (peak moment of conflict or action), and a resolution at the end. However, the short fiction written now is more likely to begin in the middle of the action (in medias res), drawing readers right into a dramatic scene. While short stories of the past often revolved around a central theme or moral lesson, today it is common to find stories with ambiguous (unclear) endings.	**Character development:** You will notice that many of the characters in the short stories we read change significantly. Below are some examples of the different ways in which they might change: **Change arc:** The protagonist is an unlikely candidate to be a hero at the start of the story, but changes in dramatic ways, often finding inner reserves of strength that he/she was previously unaware of. **Growth arc:** The protagonist grows as a result of what happens to them. Perhaps he or she gets older or comes up against a difficult situation. The protagonist develops in a gradual, unsurprising way rather than going through huge changes. **Fall arc:** The actions of the protagonist doom him or her to disaster, or even death. This arc is very similar to tragedy in drama.

Key Terminology:	
Protagonist – main character Hero -a person admired for their courage or brave achievements Anti-hero – a main character who lacks traditionally heroic characteristics	Character flaw – an area of weakness. This often leads to the character's downfall Plot – the order of events in a story Ambiguous - unclear Narrative arc – a traditional story structure Exposition – the description at the start of the story which sets the scene
Character development – tracking how the character changes Character traits – the main features of the character's personality	Rising action – the section of the story approaching the climax, when the tension is rising Climax – the most dramatic part of the short story Falling action – the section after the climax, when tension is decreasing

Key Vocabulary

Infer	Use clues and reasoning to work out what is being hinted at or suggested.
Structure	The structure of a text is how it is organised and how its parts fit together— how it has been built.
Contrast	An obvious difference between two or more things, sometimes used deliberately to create effect.
Cyclical	A cyclical structure is when the events, characters or setting at the end are in some way the same as they are at the beginning.
Narrative	A story or a description of a series of events: novels and short stories and sometimes poems are narratives as they recount a series of events.
Context	The circumstances that form the setting for an event, statement, or idea, which help it to be fully understood.
Hierarchy	The organization of society which ranks individuals according to their status or authority.
Prejudice	A preconceived opinion that is not based on reason or actual experience, derived from "pre-judging".
Analyse	To examine a writer's words, imagery, form and structure methodically and in detail in order to explain and interpret it.
Foreshadowing	Planting an advance sign or warning of what is to come in the future in a narrative.

Language Features

Metaphor	Describing something by saying it is something else, e.g. 'he was a lion in battle' might show a soldier as fierce or brave.
Extended Metaphor	Using the same metaphorical theme throughout the text, e.g. describing a sports match as a war battle.
Simile	Describing something by saying it is like something else, e.g. 'her smile shone like the sun' would suggest a bright smile and a happy mood.
Personification	Describing something not human by giving it human characteristics, e.g. 'the angry sea grabbed and threw the boat across the choppy waters' would show rough and dangerous weather.
Alliteration	When several words in the same sentence or paragraph stand out because they begin with the same letter, e.g. 'softly spoken,
Assonance	When several words in the same sentence or paragraph stand out because they contain the same vowel sound, e.g. Bright light
Oxymoron	When words next to each other have opposite meanings, such as 'bittersweet' or 'beautiful monster'. The contrast showing how things can be contradictory.
Juxtaposition	When words or ideas near to each other in a sentence, paragraph or text have contrasting meanings.
Noun	Words for people, places, things, e.g. 'the muddy **dog** jumped eagerly onto the **table'**.
Adjective	Words that describe nouns, e.g. 'the **muddy** dog jumped eagerly onto the table'.

Verb	Words for action, e.g. 'the muddy dog **jumped** eagerly onto the table'.
Adverb	Words that describe verbs or adjectives, e.g. 'the muddy dog jumped **eagerly** onto the table'.
Preposition	Words that indicate place or time and how words in a sentence relate to each other, e.g. 'the muddy dog jumped eagerly **onto** the table'.
Semantic & Lexical Fields	A semantic field is a group of words with similar meanings or connotations in a text, e.g. in the semantic field of ghostly, you might have 'fear', 'shiver', 'eerie', 'pale', etc. However a lexical field is a group of words that relate to the same topic, e.g. in a lexical field of the supernatural, you might have 'ghost', 'vampire', 'graveyard', 'abandoned house', 'spirit', 'bats', 'moonlight', etc.
Structural Features	
Sentence Functions:	**Declarative:** stating information, e.g. 'I am taking the dog for a walk.' **Interrogative**: asking questions, e.g. 'Are you taking the dog for a walk?' **Exclamatory**: emotionally stated information, often ending with an exclamation mark, e.g. 'This dog needs a walk NOW!' **Imperative**: an order or command, e.g. 'You will take the dog for a walk.'
Sentence types: - complex - compound - simple	**Complex:** containing a main (makes sense on its own) and a subordinate (must be linked to another) clause. E.g. 'If you're going for a walk then remember to take some water. **Compound:** two or more main clauses linked by a conjunction (a 'joining' word, e.g. 'and'). E.g. 'We went for a walk and enjoyed the fresh air.' **Simple:** one main clause (makes sense on its own). E.g. 'We went for a walk.'
Repetition	When words are repeated in any way within a text. E.g. 'Everyone lived in the same small brick houses, on the same kind of long and narrow streets, all leading to the same tall factory chimneys in one direction and the same dark and brooding moors on the other.'
Listing	When items are noted one after the other. E.g. 'The cold, dark and brooding moors.'
Anaphora	(A type of repetition) When a series of sentences begin in the same way. E.g. Martin Luther King's 'I have a dream' speech had many lines beginning with the phrase 'I have a dream'.
Setting	The time and place in which the story takes place. Can include things like the weather, the historical period, the social structures and any other details about the surroundings. The settings create a backdrop to the story and help create mood and atmosphere. E.g. 'As I looked up at the cold, dark and brooding moors I saw a flash of lightening followed by the deep roar of thunder and raindrops began to fall like bullets from the sky…'
Plot	The events and the organisation and sequencing of them that make up the story. E.g. in the nursery rhyme 'Humpty Dumpty', he first sits on the wall, then he falls off, then all the King's horses and men arrive, but cannot put him back together again. The events and the order of them are each important.
Theme	An underlying message or meaning conveyed by the story. E,g, the story might tell us something about love, conflict, betrayal, friendship, bravery, loyalty, all of these things or something completely different. Stories generally have several linked themes.

The Merchant of Venice

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.

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 Britain's second-longest reigning monarch (surpassed by Queen Elizabeth II).

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.

Finding the writer's viewpoint and investigating language

By investigating language choices, you can think about how and why the writer could be trying to influence the reader:

- A writer may be using persuasive language to convince the reader to agree with their viewpoint in a magazine article or to encourage them to buy something in an advertisement.

- A writer might use language to amuse or entertain the reader and present a topic in a light-hearted way.

- It's also useful to investigate patterns in how words and phrases are used by a writer.

- A writer may deliberately use lots of positive abstract nouns - like dream, love, peace, happiness - in a perfume advertisement to give the writing a sophisticated tone.

- In a piece of travel writing about rock climbing, the writer may use lots of 'ing' verbs - like reaching, grasping, leaping - to create a strong sense of physical drama.

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.		

Rebellion, Revolution and Romanticism

Romanticism characterized many works of literature, painting, music, architecture, criticism, and historiography in Western civilization over a period from the late 18th to the mid-19th century. Romanticism can be seen as a rejection of the precepts of order, calm, harmony, balance, idealization, and rationality that typified Classicism in general and late 18th-century Neoclassicism in particular.

It was also to some extent a reaction against the Enlightenment and against 18th-century rationalism and physical materialism in general.

Romanticism emphasized the individual, the subjective, the irrational, the imaginative, the personal, the spontaneous, the emotional, the visionary, and the transcendental.

Romanticism

- Today the word 'romantic' evokes images of love and sentimentality, but the term 'Romanticism' has a much wider meaning. It covers a range of developments in art, literature, music and philosophy, spanning the late 18th and early 19th centuries.
- In 1762 Jean-Jacques Rousseau declared in *The Social Contract*: 'Man is born free, and everywhere he is in chains.' During the Romantic period major transitions took place in society, as dissatisfied intellectuals and artists challenged the Establishment.
- In England, the Romantic poets were at the very heart of this movement. They were inspired by a desire for liberty, and they denounced the exploitation of the poor.
- There was an emphasis on the importance of the individual; a conviction that people should follow ideals rather than imposed conventions and rules.
- The Romantics renounced the rationalism and order associated with the preceding Enlightenment era, stressing the importance of expressing authentic personal feelings.
- They had a real sense of responsibility to their fellow men: they felt it was their duty to use their poetry to inform and inspire others, and to change society.

Common themes in Romanticism

Themes- central ideas in a literary work

- Sublime
- Nature
- Individualism
- Oppression
- Religion
- Capacity of wonder
- Childhood
- Outcasts of society

The Romantic Poets	Percy Shelley (1792-1822)	William Blake (1757-1827)
Characteristics of Romanticism - An appreciation of the beauty of nature - Human emotion and the senses - Obsession with the exceptional figure, the genius and the hero, and their inner struggles - The imagination as a gateway to experience and truth - An obsessive interest in folk culture, cultural origins and the medieval era	As reckless and brilliant in his poetry as in his life, Shelley poured out the great body of his major works in less than a decade and drowned at the age of twenty-nine while trying to race a summer storm. The rebellious son of a baronet, many of his radical and revolutionary ideas powerfully influenced by his father in law William Godwin.	Poet, painter and engraver, Blake grew up in London 'conversing with angels' and retained a visionary view of the world throughout his long, hard-working and poverty stricken career. Powerfully influenced by revolution, well known for his radical circle and now admired for Songs of Innocence and Experience (1794)
William Wordsworth (1770-1850) William Wordsworth was born in Cumbria and was heavily inspired by the Lake District as an area of outstanding natural beauty. His father was a lawyer. Both Wordsworth's parents died before he was 15, and he and his four siblings were left in the care of different relatives. As a young man, Wordsworth developed a love of nature, a theme reflected in many of his poems.	**John Keats (1795-1821)** Though he became the epitome of the young, beautiful, doomed poet of late English Romanticism, Keats struck everyone who knew him with his tremendous energy, his robust good humour and his zest for living. Sensuous and highly intelligent, he said poetry should be 'felt on the pulses.'	**Lord Byron (1788-1824)** With Lord Byron, English Romanticism developed into an international style. A charismatic figure of devastating charm and vanity. His magnetic presence attracted innumerable raffish admirers and hangers-on. Lord Byron's politics, relationships and views on other poets led to his reputation of 19th century bad boy.

Poetic Forms and devices

Technique	Definition	Contextual Sentence
Alliteration	The occurrence of the same letter or sound at the beginning of adjacent or closely connected words.	He heard the snow falling faintly
Sibilance	A form of alliteration where the 's' or 'sh' sound is formed. It often creates a hissing sound	The sweet smell of victory swirled in his nostrils
Onomatopoeia	The forming of a word by imitating the sound the word is referring to	Crash! Bang!
Simile	A descriptive technique that compares one thing with another, usually using like or as	My love is like a red, red rose Her hands were as cold as ice
Metaphor	a figure of speech used to make a comparison between two things usually by stating something is something else.	Juliet is the sun
Repetition	Intentionally using a word or a phrase more than once in a text. They are often repeated in close proximity to each other.	The sad truth is that the truth is sad. Time after time.
Personification	The attribution of human characteristics to something non-human	Lightning danced across the sky My alarm clock yelled at me to get up!
Pathetic Fallacy	A type of personification where human emotions are attributed to aspects of nature, such as the weather, and often reflects characters' feelings or the action of a story	The sullen wind was soon awake. The sombre clouds darkened our mood
Oxymoron	Oxymoron is a figure of speech pairing two words together that are opposing and/or contradictory.	Silent scream Close distance Live recording
Hyperbole	An exaggerated claim or statement. They are often used to add emphasis.	I had to wait in the station for hours – an eternity!
Sonnet	A sonnet is a fourteen line poem with a fixed rhyme scheme. Often, sonnets use iambic pentameter: five sets of unstressed syllables followed by stressed syllables for a ten-syllable line. Although sonnets can be written about any theme, they are commonly used to express love, romance and beauty	
Ballad	A ballad is a form of narrative verse that is considered either poetic or musical. As a literary device, a ballad is a narrative poem, typically consisting of a series of four-line stanzas. Ballads were originally sung or recited as an oral tradition among rural societies, and were often anonymous retellings of local legends and stories by wandering minstrels in the Middle Ages.	

	Topic	Where does the work quadratic come from?
Year 8 Mathematics **Knowledge Organiser**	Algebra – Manipulation and Solving	*The word quadratic is derived from quadratus which is the past participle of quadrare meaning "to make square." The word is connected to the Latin word for "four".*

Expanding Brackets

Expand everything on the outside by everything on the inside…and simplify if needed

Single Bracket Expansion

Expanding
$2(g + 4)$
$= 2g + 8$

Expanding
$5n(n + 3)$
$= 5n^2 + 15n$

2 Single Brackets → Expand then Simplify

$5(x + 3) + 6(x - 4)$
$5x + 15 + 6x - 24$ $=$ $11x - 9$

Double Bracket Expansion

$(x + 7)(x - 4)$ $=$ $x^2 + 3x - 28$
$x^2 - 4x + 7x - 28$

How you expand it out is your call – Crab's Claw, FOIL, … the choice is yours

Factorising – *'Whack it in a Bracket'*

Factorising is the opposite of expanding.
In expanding, we multiply…
So in factorising, we divide!

You need to identify factors that the terms share…
it could be a **number (HCF)**, a **letter** or **both**!

Single Bracket Factorising

$5x + 15 = 5(x + 3)$
$10x - 12 = 2(5x - 6)$
$ab + ac = a(b + c)$
$x^2 + 6x = x(x + 6)$
$wig + wam = w(ig + am)$
$10xy + 15y = 5y(2x + 3)$
$8x^2y + 4xy^2 = 4xy(2x + y)$

Quadratic Equations

A quadratic is a 3-part equation that is equal to zero. The standard form of a quadratic equation is :

$$ax^2 + bx + c = 0$$

Example : $6x^2 + 5x + 4 = 0$

To solve, we factorise and set the brackets equal to zero.

$(x + 9)(x - 2) = 0$

$x + 9 = 0$ $x = -9$
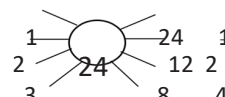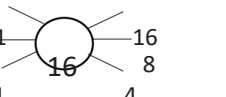$x - 2 = 0$ $x = +2$

Don't forget **D.O.T.S.**
Difference Of Two Squares
$x^2 - 81$ $=$ $(x + 9)(x - 9)$

Highest Common Factor

HCF is the highest factor that 2 or more numbers share.

Find the HCF of <u>24</u> and <u>16</u>

- List the factors of each number
- Identify the <u>common</u> factors : 1, 2, 4, 8
- Select the <u>highest common factor</u>   8

Lowest Common Multiple

LCM is the lowest multiple that 2 or more numbers share.
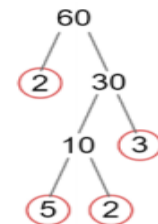
Find the LCM of <u>4</u> and <u>6</u>

- List the multiples of each number
- Select the <u>lowest common multiple</u>

4: 4 , 8 , 12 , 16 , 20
6: 6 , 12 , 18 , 24 , 30

Product of prime factors

Write 60 as a product of prime factors

- When you get to a prime number, circle it and finish that path
- Multiply the circles
So 60 = 2 × 2 × 3 × 5
  = 2² × 3 × 5
  (index form)

Are there other trees that represent 60?

Indices

Multiplying:+ Powers

$x^3 \times x^7 = x^{10}$
$2^5 \times 2^6 = 2^{11}$

Dividing:- Powers

$y^{14} \div y^9 = y^5$
$6^9 \div 6^5 = 6^4$

Negatives

$x^{-4} = \frac{1}{x^4}$
$2^{-3} = \frac{1}{2^3} = \frac{1}{8}$

Fractional

$y^{1/2} = \sqrt[2]{y}$
$z^{1/4} = \sqrt[4]{z}$

Standard Form

Standard form is a short hand way of writing very large and very small numbers

$$a \times 10^b$$

$1 \le a < 10$
b is an integer

Examples of standard form :

67800 in standard form is 6.78 × 10⁴
0.000876 in standard form is 8.76 × 10⁻⁴

Non examples of standard form

87.65 × 10⁵ (a is not $1 \le a < 10$)
0.87 × 10⁻³ (a is not $1 \le a < 10$)
6.85 × 10²·⁴ (b is not an integer)

Solving Equations

Solving an equation allows us to find the value of an unknown. In algebra, missing numbers in equations are represented by letters.
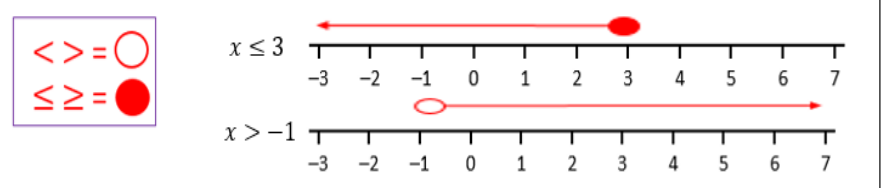
Inequality Symbols

>	greater than	$x + 3 > 2$
<	less than	$7x < 28$
≥	greater than or equal to	$5 \geq x - 1$
≤	less than or equal to	$2y + 1 \leq 7$

Interpreting inequalities

$$-2 < y \leq 3$$

This inequality reads '-2 is less than y which is less than or equal to 3'. The integers satisfying this inequality are -1,0,1,2 and 3
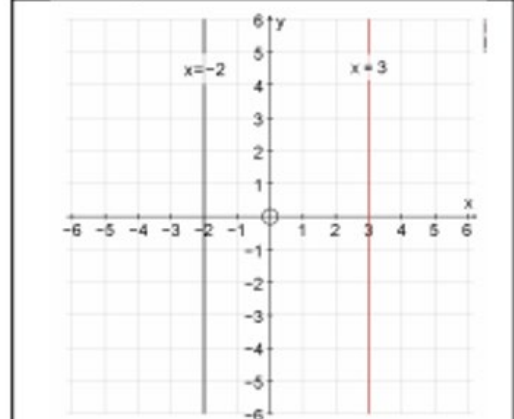
Inequalities on a Number Line

< > = ○
≤ ≥ = ●

$x \leq 3$

$x > -1$

The equation of a straight line

All linear graphs can be written in the form

$$y = mx + c$$

m is the gradient	c is the y-Intercept
How steep the line is. For every number you go to the **right**, it is the number you must go **up** (+mx) or **down** (-mx)	where the line **crosses the y-axis** at. Sometimes this point is referred to as (0, c)

Graphs of form x = a

Notice that these graphs are vertical

Graphs of form y = b

Notice that these graphs are horizontal

Mathematics Command Words – Tier 2 Vocabulary

Hence	Calculate	Product	Sum	Draw
An indication that the next step is based on what has gone before	Work out, showing your method where necessary.	The answer when 2 or more values are multiplied together	The answer when 2 or more values are added together	Give an accurate depiction of a graph, map, diagram, etc.
Example Application	**Example Application**	**Example Application**	**Example Application**	**Example Application**
Hence or otherwise find the solution when x=2	**Calculate** the missing angles in this diagram…	Express 56 as a **product** of its prime factors	What is the **sum** 56 and 12?	**Draw** the graph of $y = x^2$ or values of x from −2 to 2

Plot	Sketch	Solve algebraically	Assess	Is this correct?
Mark points accurately on a graphs	Draw a diagram, not necessarily to scale, showing the key features.	Find the solution of an equation or inequality; algebraic manipulation must be shown.	Show a calculation and/or written evidence to support the given statement.	Give an argument, with reasons, whether the statement is correct or not.
Example Application	**Example Application**	**Example Application**	**Example Application**	**Example Application**
Plot the graph of y=7x +2 on the grid	**Sketch** the graph of y=x³	**Solve algebraically** the simultaneous equations	**Assess** the statements below and decide whether they are true or false	Jamal writes the following calculation $$\frac{3}{7} - \frac{2}{5} = \frac{15}{35} - \frac{14}{35} = \frac{1}{35}$$ **Is he correct?**

Expand	Expand and simplify	Give your answer in index form	Factorise	Factorise fully
Multiply each term in the bracket by the expression outside the bracket	Multiply each term in the bracket by the expression outside the bracket and then collect the like terms	Giving an expression containing a number a (the base) raised to the power of another number n (index)	Insert brackets by taking out the common factors	Insert brackets by taking out all the common factors (this is usually a hint that more than one factor can be taken out)
Example Application	**Example Application**	**Example Application**	**Example Application**	**Example Application**
Expand 8(b+2)	**Expand and simplify** 4(a+2)+6(a-4)	Write 36 as a product of prime factors, give your answer in **index form**.	**Factorise** 4y+28	**Factorise fully** $4y^3 + 8y$

Mathematics Command Words – Tier 3 Vocabulary

Inequality	Gradient	Y- Intercept	Prime factors	Fraction
A mathematical statement which shows expressions that are not equal.	A measure of how steep a slope or line is	The point where a graph intercepts the y-axis	A factor that is a prime number	A fraction represents equal parts of a whole
Example Application	**Example Application**	**Example Application**	**Example Application**	**Example Application**
Solve the i**nequality** $5a + 7 > 27$	What is the **gradient** of the straight line y=7x +2	What is the **y -intercept** of the straight line y=7x +2	What are the **prime factors** of 100?	The **fraction** $\frac{1}{3}$ means 1 part of something that has been divided into 3 equal parts

Highest Common factor	Lowest Common multiple	Equivalent	Simplify	Percentage Increase
The highest number that divides exactly into 2 of more numbers	The lowest positive number that is multiple of 2 or more numbers	Equal in value	To reduce to its simplest form	Measure of a percentage change where something gains value
Example Application	**Example Application**	**Example Application**	**Example Application**	**Example Application**
What is the **highest common factor** of 18 and 27	What is the **lowest common multiple** of 4 and 6?	Are $\frac{6}{18}$ and $\frac{1}{3}$ **equivalent**? How do you know?	**Simplify** $\frac{6}{42}$	Billy earns £25,000 per year. He gets a pay rise of £5,000. What is the **percentage increase** in his salary?

Percentage decrease	Percentage Multiplier	Equation	Linear	Quadratic Expression
Measure of a percentage change where something loses value	Allows calculation of percentage increase or decrease in one calculation	An equation is a number statement with an = sign. Expressions on either side of the equal side are of equal value.	An equation or function that is the equation of a straight line and takes the form y = mx + c	An expression in the form ax^2 + bx + c, where a,b and c are integers
Example Application	**Example Application**	**Example Application**	**Example Application**	**Example Application**
In a sale a dress has 20%. What is the value of the dress after the **percentage decrease?**	1.2 is the **percentage multiplier** to increase an amount by 20%	$5x$ +4 =24 is an **equation**	$3x$ +4 = 34 is a **linear equation**	Factorise the **quadratic expression** x^2 + 6x + 8

$$\frac{\partial}{\partial a} \ln f_{a,\sigma^2}(\xi_1) = \frac{(\xi_1 - a)}{\sigma^2} f_{a,\sigma^2}(\xi_1) = \frac{1}{\sqrt{2\pi}\sigma}$$
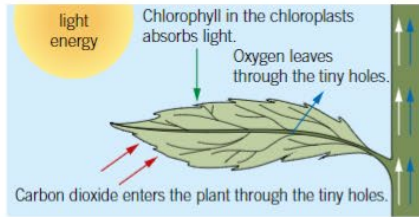
$$\int_{R_n} T(x) \cdot \frac{\partial}{\partial \theta} f(x,\theta) dx = M\left(T(\xi) \cdot \frac{\partial}{\partial \theta} \ln L(\xi,\theta) \right)$$

$$\int_{R_n} T(x) \cdot \left(\frac{\partial}{\partial \theta} \ln L(x,\theta) \right) \cdot f(x,\theta) dx = \int_{R_n} T(x) \cdot \left(\frac{\frac{\partial}{\partial \theta} f(x,\theta)}{f(x,\theta)} \right)$$

$$\int_{R_n} T(x) f(x,\theta) dx = \int \frac{\partial}{\partial \theta} T(x)$$

Photosynthesis

Photosynthesis is a chemical reaction that takes place in the **chloroplasts** to produce **glucose**.

carbon dioxide + water → oxygen + glucose

light energy

Chlorophyll in the chloroplasts absorbs light.

Oxygen leaves through the tiny holes.

Carbon dioxide enters the plant through the tiny holes.

waxy layer – to reduce water loss by evaporation

chloroplasts – mainly located on the upper side of the leaf where the most sunlight reaches

palisade layer

stomata – on the lower surface to reduce water loss by evaporation

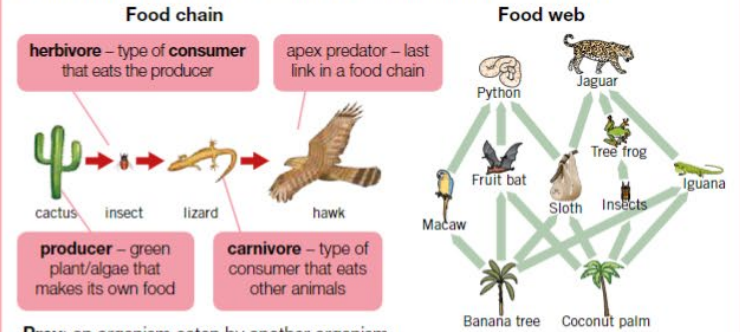spongy layer

guard cell   air space

Leaves are specially adapted for photosynthesis:

- have lots of green **chlorophyll** – absorb sunlight for photosynthesis
- are thin – allow gases to diffuse in and out of the leaf
- have a large surface area – absorb as much light as possible
- have veins – xylem and phloem transport water and glucose

The minerals plants need for growth are:
1. **nitrates** for growth
2. **phosphates** for healthy roots
3. potassium for healthy leaves and flowers
4. magnesium for making chlorophyll

If a plant does not have enough of a mineral, it may suffer from a mineral **deficiency**. Farmers can use **fertilisers** to add missing minerals to the soil.

Respiration

with oxygen

Aerobic respiration

glucose + oxygen → carbon dioxide + water (+ energy)

- Respiration occurs in the **mitochondria** of cells to transfer energy.
- Glucose is absorbed from the small intestine into the blood **plasma**. It is transported to the cells where it diffuses in.
- Oxygen is breathed in and diffuses into the bloodstream. Oxygen is then carried by haemoglobin to the cells where it diffuses in.
- Carbon dioxide diffuses out of the cells into the blood plasma. It is transported to the lungs where it diffuses into the air sacs and is exhaled.

without oxygen

Anaerobic respiration (in animals)

glucose → lactic acid (+ energy)

- This occurs when there is not enough oxygen for aerobic respiration, such as during strenuous exercise.
- It transfers less energy than aerobic respiration.
- The lactic acid produced can cause muscle cramps. This causes increased inhalation to break down lactic acid – the oxygen needed is called the **oxygen debt**.

Fermentation (in microorganisms)

glucose → ethanol + carbon dioxide (+ energy)

- Yeast respires anaerobically – this fermentation is important in food production (e.g., bread, beer, and wine).

Food chains and webs

Food chains show the transfer of energy between organisms – the arrows represent the direction of energy transfer.

Food webs show how lots of food chains are connected in an ecosystem.

Food chain

herbivore – type of **consumer** that eats the producer

apex predator – last link in a food chain

cactus   insect   lizard   hawk

producer – green plant/algae that makes its own food

carnivore – type of consumer that eats other animals

Food web

Python   Jaguar
Tree frog
Fruit bat   Iguana
Macaw   Sloth   Insects
Banana tree   Coconut palm

Prey: an organism eaten by another organism.

Predator: an organism that eats another organism.

Bioaccumulation is the build up of chemicals, like insecticides, passed along a food chain.

Populations and ecosystems

The number of organisms that live in the same area is called a **population**. Populations of organisms are constantly changing – this affects other populations in a food web.

Interdependence is when living organisms depend on each other to survive, grow, and reproduce.

Ecosystem: all the organisms found in a particular location, and the area they live in.

Community: the organisms in an ecosystem. **Habitat**: the area a community lives in.

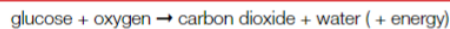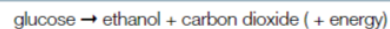**Niche**: the particular place or role that an organism has within an ecosystem. This reduces competition for resources.

Chemosynthesis

Chemosynthesis is when bacteria use a variety of chemical reactions to make their own glucose. Chemosynthesis:

- uses chemicals as the source of energy
- often uses carbon dioxide as a reactant

For example, sulfur bacteria at the bottom of deep sea vents and nitrogen bacteria in the soil use chemosynthesis to produce glucose.

Year 8 Science: Biology – Ecosystems

Key word	Definition	Contextual Sentence
aerobic respiration	Chemical reaction where glucose reacts with oxygen to release energy, carbon dioxide, and water.	If you complete exercise your aerobic respiration rate increases
anaerobic respiration	Chemical reaction that takes place without oxygen. Glucose is converted into lactic acid and energy is released.	Anaerobic respiration can occur if you complete heavy exercise, the build-up of lactic acid will cause a stitch
bioaccumulation	The build up of toxic chemicals inside organisms in a food chain.	Fish will take in lots of chemicals from the water, seals eat lots of fish so the chemicals will accumulate in the seal.
chemosynthesis	Reaction performed by bacteria, using energy transferred from chemical reactions to produce glucose.	Chemosynthesis can be carried out by bacteria if they live in places without light.
chlorophyll	Green pigment that absorbs light for use in photosynthesis.	Inside the chloroplasts, there is a green substance named chlorophyll.
co-exist	Plants and animals living in the same habitat at the same time.	Ostriches and Zebras co – exist in their habitat.
community	The collection of the different types of organism present in an ecosystem.	You will work and help your community around you.
consumer	Organisms that eat other organisms as food.	Humans are consumers of lots of different food groups.
deficiency	A lack of minerals, that causes poor growth.	A person suffering from anaemia has a deficiency in iron.
ecosystem	The name given to the interaction between plants, animals, and their habitat in a particular location.	No living thing exists alone; each lives within an **ecosystem** a community of organisms interacting with one another and their environment.
fermentation	Chemical reaction used by microorganisms to convert glucose into ethanol, carbon dioxide, and energy.	Yeast is used in the fermentation process to make bread.
fertiliser	Chemical containing minerals, normally applied to soil.	A farmer applies fertiliser to their fields to help the crops grow
food chain	A diagram that shows the transfer of energy between organisms.	A food change example could be grass -> zebra -> lion
food web	A diagram showing a set of linked food chains.	More animal eat more than one type of organism so their eating habits can be shown in a food web.
habitat	The area in which an organism lives.	The amazon rainforest is a habitat for lots of animals that live today.
haemoglobin	The substance in blood that carries oxygen around the body.	The oxygen in your body binds to the haemoglobin in your blood.
photosynthesis	The process plants use to make their own food, glucose. In photosynthesis, carbon dioxide and water react together to make glucose and oxygen.	A plant carried out photosynthesis with the light from the midday sun.
population	The number of plants or animals of the same type that live in the same area.	The human population has been increasing in this country.
predator	An animal that eats other animals.	A lion is a predator, it will eat other animals like zebra.
prey	An animal that is eaten by another animal	A zebra is prey to a lion, it will be hunted and eaten.
producer	Organism that makes its own food using photosynthesis.	A plant is a producer, it makes its own food to live.
stomata	Holes found on the bottom of the leaf that allow gases to diffuse in and out of the leaf.	The oxygen diffused out through the stomata in the leaf of the plant.

Metals and acids

- If a metal reacts with an acid, it produces a **salt** and hydrogen gas.
- All acid compounds have hydrogen in them.
- When the hydrogen is replaced by a metal, the compound is called a salt.

For example, sulfuric acid has the formula H_2SO_4. Copper sulfate has the formula $CuSO_4$ – it is a salt because the copper has taken the place of the hydrogen in sulfuric acid.

The three main acids are hydrochloric acid, sulfuric acid, and nitric acid. Metals can react with all of these acids to produce a salt and hydrogen gas.

copper + hydrochloric acid → copper chloride + hydrogen

iron + sulfuric acid → iron sulfate + hydrogen

magnesium + nitric acid → magnesium nitrate + hydrogen

Testing for hydrogen gas

The gas produced when reacting a metal and a salt can be collected in an upturned test tube, and a test performed to check that the gas is hydrogen. Insert a lit splint into the upturned test tube – if the gas is hydrogen, there will be a 'pop' sound.

Metals and water/steam

- Very reactive metals like sodium will react with cold water to produce a metal hydroxide and hydrogen gas.

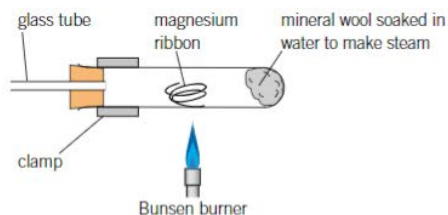 *sodium + water → sodium hydroxide + hydrogen*

  $2Na(s) + 2H_2O(l) \rightarrow 2NaOH(aq) + H_2(g)$

- Other metals like magnesium only react with steam, and produce a metal oxide and hydrogen.

  magnesium + steam → magnesium oxide + hydrogen

  $Mg(s) + H_2O(g) \rightarrow MgO(s) + H_2(g)$

Magnesium can be reacted with steam using the following experimental set-up.

Metals and oxygen

- Many metals will react with oxygen from the air to produce a metal oxide.
- Often, they will need to be heated before they can react.

Metal	Reaction with oxygen
magnesium	burns vigorously
zinc	burns less vigorously
iron	burns
lead	do not burn; when heated, form layer of oxide on surface
copper	
gold	no reaction

Metal displacement reactions

- A **displacement reaction** occurs when a more reactive element takes the place of a less reactive element in a compound.
- In metals, this means that the more reactive metal will become a compound, and the less reactive one an element.

For example, iron is more reactive than copper so:

The reactivity series

most reactive

potassium
sodium
lithium
calcium
magnesium
aluminium
zinc
iron
lead
copper
silver
gold

least reactive

Increasing reactivity

State symbols

- Symbol equations have letters in brackets after each substance.
- These tell you the state of matter of each substance, and are called **state symbols**:

(s) = solid, (l) = liquid, (g) = gas, (aq) = dissolved in water

For example, $H_2O(s)$ is ice, $H_2O(l)$ is water, $H_2O(g)$ is steam, and $NaCl(aq)$ is sodium chloride (table salt) dissolved in water.

Key word	Definition	Contextual Sentence
carbon fibre	A material made of thin tubes of carbon.	My new tennis racket is made of carbon fibre; it is much lighter
ceramic	A compound such as a metal silicate or oxide that is hard, strong, and has a high melting point.	Bricks and pottery are an examples of ceramic materials
composite	A mixture of materials with properties that are a combination of those of the materials in it.	Reinforced concrete and carbon fibre are examples of composites
displace	A more reactive metal displaces – or pushes out – a less reactive metal from its compound.	In a reaction the more reactive sodium will displace the less reactive copper
displacement reaction	In a displacement reaction, a more reactive metal displaces – or pushes out – a less reactive metal from its compound.	A displacement reaction occurs when the reactive potassium is added to iron sulphate.
metal	Elements on the left of the stepped line of the Periodic Table. Most elements are metals. They are good conductors of energy and electricity.	Magnesium, Copper and Iron are all examples of metals
natural polymer	Polymers made by plants and animals, including wool, cotton, and rubber.	Spiders spin a web, which is an example of a natural polymer
ore	A rock that you can extract a metal from.	Large Quarrys are places with lots of metal ore, where they get dug up from the ground
polymer	A substance made up of very long molecules.	Plastic and nylon are both examples of polymers
reactive	A substance is reactive if it reacts vigorously with substances such as dilute acids and water.	A firework is an example of a very reactive substance
reactivity series	A list of metals in order of how vigorously they react.	Potassium is at the top of the reactivity series of metals
state symbol	A state symbol gives the state of a substance in a chemical equation. (s) means solid, (l) means liquid, (g) means gas, and (aq) means dissolved in water.	Oxygen (g) + hydrogen (g) --> water (l)
synthetic polymer	A substance made up of very long molecules that does not occur naturally.	Polyester is a synthetic polymer used to make clothes
thermite reaction	Reaction of aluminium with iron oxide to make aluminium oxide and iron.	Train tracks are welded together using the thermite reaction

Energy adds up

The **law of conservation of energy** states that energy cannot be created or destroyed, only transferred.

total energy before = total energy after

Transferring energy

Light, sound, and electricity are ways of transferring energy between different stores.

Energy and temperature

- **Thermometers** measure temperature in degrees **Celsius (°C)**.
- Temperature measures the *average* energy.
- **Thermal energy** measures the total energy.

A warm bath has more thermal energy than a heated kettle, even though the kettle has a higher temperature.

Heating solids, liquids, and gases

- As we heat things the particles gain more **kinetic energy**, and vibrate more or faster.
- The energy needed to heat an object depends on the mass, material and temperature rise.

Equilibrium

Equilibrium is when objects have the same thermal energy.

Energy and power

Renewable resources

Renewable resources produce greenhouse gases when built, not when used, and will not run out.
For example, wind, tidal, wave, hydroelectric, geothermal, biomass, and solar powers.

The current created is sent to our offices, factories, and homes down long cables.

These fossil fuels produce **greenhouse gases**, such as carbon dioxide.

Fossil fuels are burned to heat water, which produces steam.

The steam turns a turbine, which spins a generator.

Particles

Thermal energy can be **transferred** by **conduction**, **convection** or **radiation**.

Conduction

- Particles collide into others when they vibrate.
- Occurs in solids.

thermal store at a high temperature

thermal store at a low temperature

Convection

- Occurs in liquids or gases.
- The part in contact with the heat source gets hotter. The particles move faster, causing them to become further apart, and a decrease in density.
- The hot part then rises, and cooler, denser parts fall and take its place at the bottom.
- They now heat, so the cycle continues. We call this a **convection current**.

Non-renewable resources

Non-renewable resources include the **fossil fuels** coal, oil, and gas. These were formed millions of years ago from fossilised remains.

These are non-renewable because you cannot reuse them, and they will eventually run out.
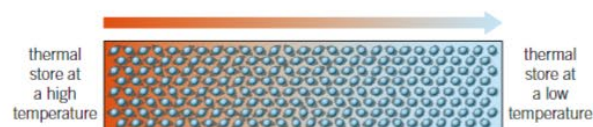
Coal, oil, or gas are used to run **thermal power stations**.

Food and fuels

- There is energy in the **chemical stores** associated with food and fuel.
- Energy is measured in **joules (J)**.
- You need different amounts of energy for different activities.

The energy in food varies.
For example:
- *apple – 200 kJ per 100 g*
- *chips – 1000 kJ per 100 g*

The energy used when we do things varies too.
For example:
- *sitting – 6 kJ per minute*
- *running – 60 kJ per minute*

Energy and power

Power is the rate of energy transfer – how much energy is transferred each second.

Energy bills

- Energy bills are measured in 1 **kilowatt** per hour (kWh).
  For example, a 2 kW device uses 4 kWh.
- A bill covers the cost of the fuel used at the power station, the power station, staff, and infrastructure.
- To convert kWh this to joules, convert the time to seconds.
  For example, $2000 J/s \times 7200 s = 14400000 J$

Reducing bills

- Use fewer appliances or more efficient ones.
- Insulated houses lose less thermal energy so don't need to use as much power.

Work energy and machines

Work done (J) = force (N) × distance (m)

Simple machines like **levers** and **gears** can make it easier to do work but you still get the energy out that you put in.

Radiation

- **Infrared radiation** transfers energy without particles – it is a wave.
- All objects emit radiation.
- The amount depends on their temperature and the surface (colour and rough/smooth).
- Radiation can be **absorbed** or **reflected**.

Key word	Definition	Contextual Sentence
conduction	A way in which energy is transferred through solids, and to a much lesser extent in liquids and gases.	When food cooks on a hob the energy is transferred through conduction
conductor	A material that conducts charge or energy well, such as a metal or graphite.	A metal spoon is a conductor, so it heats up quickly if placed in hot water
convection	The transfer of energy by the movement of gases or liquids.	Heat energy from your radiator moves around your room by convection
dissipated	Energy that has become spread out or 'wasted' by heating the environment.	The energy of the moving toy car will dissipate to the surrounding as the car slows to a stop
energy	Associated with changes in temperature or with work.	Energy is needed for all processes to happen; we get our energy from the food we eat.
energy resources	Materials or mechanisms for heating or generating electricity.	Fossils fuels and wind power are both examples of energy resources
energy store	How the energy exists in each substance that enables you to account for the energy at the start and end of a transfer.	There are 5 main stores of energy: thermal, kinetic, chemical, elastic and gravitational potential
fossil fuel	Coal, oil, and gas made from the remains of trees and sea creatures over millions of years.	We burn fossil fuels in many factories around the country to produce energy for our homes.
insulator	A material that does not conduct electricity or transfer energy well.	Polystyrene is an insulator, so it is used for coffee cups.
joules	The unit of energy, symbol J.	The heater gives out 500 joules of heat energy.
law of conservation of energy	Energy cannot be created or destroyed, only transferred.	According to the law of conservation of energy the amount of energy in the sore at the start will be the same after it has changed into different stores of energy
non-renewable	Energy resources that have a limited supply.	Coal and oil are non- renewable sources of energy
power rating	The number in watts or kilowatts that tells you the rate at which an appliance transfers energy.	The power rating on the kettle is low compared to the fridge
radiation	The transfer of energy as a wave.	Energy is transferred by radiation from our bodies to the surroundings
renewable	Energy resources whose supply will not run out.	Wind power and solar power are renewable.
temperature	A measure of how hot or cold something is, measured in degrees Celsius.	The temperature of the oven was set to high
thermometer	Instrument used to measure temperature.	The temperature of the beaker of water was measured with a thermometer
watt	The unit of power, symbol W.	The power rating on the microwave is measured in watts.
work	A way of transferring energy that does not involve heating.	The work done on the cable allowed the lift to move upwards

1. How do we make moral decisions?

Moral decision making is deciding what is the right course of action in various ethical dilemmas. Sometimes this is difficult as multiple actions can be seen as acceptable.

Some people think it is always important to follow rules when making moral decisions. It is never acceptable to break these rules, e.g. it is always wrong to steal. This is called absolute morality. An example of this is Natural Moral Law.

Some people think although rules are important when making moral decisions, sometimes we may have to break them if we can reach a better outcome, e.g. it is right to steal if it helps somebody who is starving. This is called relative morality. An example of this is Utilitarianism.

Some people think it is important to use your conscience when making moral decisions. This is something within you that guides you on what the right decision is. Some people believe your conscience makes you feel guilty if you make the wrong decision.

2. Can Holy Books guide us when making moral decisions?

When it comes to making moral decisions about what to do most people have various sources of authority they can go to for guidance and help. These might include friends and family. Religious people also have another source of guidance in holy books.

1. Christians use the Bible as a source of guidance. This contains the 10 commandments, the teachings of Jesus and the teachings of other key religious figure such as St Paul.

2. Muslims use the Qur'an as a source of guidance. Muslims believe this contains the absolute word of God. Muslims believe it is a complete guide to Muslim life, behaviour, and ethical matters.

3. Sikhs use the The Guru Granth Sahib. Sikhs believe this is a source of guidance as it is a living Guru. It has hymns and poems that express the equality of humans.

4. Jews use the Torah. Jewish people believe God dictated the Torah to Moses on Mount Sinai. It contains 613 commandments which direct Jewish people on how to behave.

Some people however do not feel holy books are an important source of guidance today. Some believe they are not the word of God and have been written by humans and therefore contain mistakes. Some believe they have been translated and the original message has been distorted. Some believe they are outdated and do not contain guidance on current ethical dilemmas such as genetic engineering.

3. Is it always right to forgive?

Forgiveness is to stop feeling angry at someone for an offence or mistake.
• Christians teach it is important to forgive as God forgives our sins. Christians believe that we should follow the example of Jesus who forgave on the cross, 'Father forgive them for they know not what they do.'
• Muslims teach it is important to forgive as life is a test and forgiving someone will ensure you pass that test.
• In Buddhism the Buddha taught that 'Holding onto anger is like grasping a hot coal with the intent of harming another, you end up getting burned.'
An example of forgiveness is Gee Walker. Her son was murdered in 2005 because of the colour of his skin. Gee Walker is a Christian and she forgave the killers as she believes this is what Jesus would want her to do.

4. What is Situation Ethics?

Situation ethics is a theory where the situation is considered first, before deciding on the rules of right and wrong. There is no set of rules, because what might be considered right in one situation could be considered the wrong thing to do in another. The main proponent of this theory is Joseph Fletcher. Fletcher believed when faced with a difficult decision, each person must assess the context of the situation and then make a decision based on what is the most loving thing to do. Fletcher believed it would be okay to break rules e.g. do not steal, providing it was for a loving motive.

Some people believe situation ethics is a good way to make moral decisions as each situation is different. However, some people do not agree with situation ethics as they argue that people have differing definitions of love.

5. Do animals have rights?

Many people believe that all living things should be treated with respect. They believe animals have the same right to be protected from ill-treatment and exploitation as humans. Most people believe humans are capable of more than other animals, e.g. they can make decisions about what is right and wrong, and they may have religious beliefs. This may mean that animals are not equal to humans.

One of the most controversial issues today regarding animal rights is whether it is okay to experiment on animals. Other ethical issues are whether it is okay to kill animals for food or keep them in zoos.

Christians believe that God created the earth and put humans in charge of it. This means they are responsible for looking after animals. Hindu scriptures are full of stories which show animals as divine. This means they should treat animals with care.

6. Is human genetic engineering acceptable?

Human genetic engineering is the modification of a gene make-up to change the key features of a human. Genetic engineering gives scientists the ability to create human embryos without genetic diseases such as cystic fibrosis.

Some Christians do not agree with genetic engineering as they believe it is playing God. They believe God made us to be exactly as we are. Some Christians however agree with genetic engineering as they believe it cures diseases and therefore follows the example of Jesus as a healer.

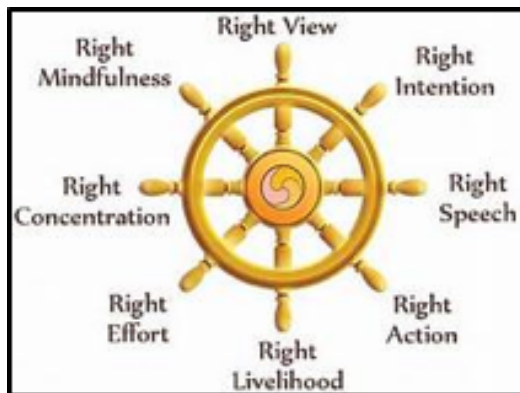| Key Vocabulary	Definition	Contextual sentence
Ethics	The study of moral values and rules.	Ethics help us to consider what is right and wrong.
Absolute morality	There are strict rules on what is right and wrong, and it never changes.	It is always wrong to steal according to absolute morality.
Relative morality	What is right or wrong can change depending on the situation.	It is okay to steal to help someone who is starving according to relative morality.
Conscience	A person's internal sense of right and wrong.	Your conscience helps you decide what to do.
Natural Moral Law	The belief that moral values are given by God and is naturally knowable by all human beings.	Natural Moral Law is an example of absolute morality.
Utilitarianism	A theory that believes we should make moral decisions based on what produces the greatest good for the greatest number.	Jeremy Bentham is responsible for the theory of utilitarianism.
Source of authority	Something that gives guidance or help when making a moral decision.	Holy books are an important source of authority for many religious people.
Forgive	This is to let go of your anger when someone has done something wrong to you.	The Buddha taught it is important to forgive.
Agape	The highest form of love. Unconditional love.	Joseph Fletcher believed we should make decisions based on agape love.
Animal rights	The belief that animals deserve rights and consideration.	PETA are a group who campaign for animal rights.
Animal exploitation	To use and abuse animals for your own gain.	Some believe a form of animal exploitation is using animals for entertainment in a circus.
Genetic engineering	The modification of a gene makeup to change the features of a human.	Genetic engineering can be used to help cure diseases.

1. Who was the Buddha?

Buddha, born with the name Siddhartha Gautama, was a teacher, philosopher and spiritual leader who is considered the founder of Buddhism. He lived and taught in the region around the border of modern-day Nepal and India sometime between the 6th to 4th century B.C.

The name Buddha means "one who is awakened" or "the enlightened one." He received this title after he found a way to stop the suffering or rebirth and taught others how to also achieve this creating Buddhism.

2. What is the Eightfold Path?

In Buddhism the Eightfold path is the eight teachings that Buddhists should follow if they want to achieve enlightenment and end suffering. The Eightfold path lays out the foundation of how Buddhists can follow the middle path, where they do not have too much or too little of anything, but just the right amount.

The Eightfold Path was set forth by the Buddha in his first sermon. Together with the Four Noble Truths, which it forms a part of, the Eightfold Path sums up the whole of Buddhist teaching. It is also called the Middle Path, as it steers a course between the excesses of the materialists and the self-denial of the ascetics. Those who follow the Eightfold Path are freed from the suffering that is an essential part of human existence and are led ultimately to Nirvana, or Enlightenment.

3. What is the Buddhist belief about life after death?

Buddhists believe a person's actions in this life will affect what happens to them after they die. The Buddha stated that actions in this life affect what happens to someone when they reincarnate. Buddhists believe that human beings are born and reborn an infinite number of times until they achieve Nirvana. In Buddhism, the reincarnation process of being reborn is associated with suffering and called samsara. The way someone acted in a previous life will influence what they reincarnate as. Someone who built positive karma through right actions in life may reincarnate as someone who will enjoy a positive and pleasant life. Negative karma has the opposite effect. Buddhists believe we don't always reincarnate as humans. For instance, some Buddhists believe we can reincarnate as animals.

4. What are different Buddhist denominations?

In Buddhism there are different types of Buddhists the same way there are different types of Christians or Muslims.

Theravada Buddhism - Theravada Buddhism can mainly be found in Sri Lanka, Thailand, Myanmar (Burma), Laos and Cambodia. It places special emphasis on the role of the Sangha. Monks have an important part to play in learning and practising the dharma and mastering meditation. Members of the Sangha can concentrate fully on following the dharma because they have left their homes and families behind to live in a monastery. Most Theravada Buddhists accept that it would be impossible for everyone to live this way, but they believe that monks and nuns are more likely to find nirvana.

Mahayana Buddhism - Mahayana Buddhists feel that the term 'Sangha' applies to all Buddhists and that everyone has an equal chance of achieving enlightenment. Mahayana Buddhists also focus on Bodhisattvas. A Bodhisattva is someone who has reached enlightenment, but filled with compassion for the suffering of others, chooses not to enter nirvana after they die. Instead, they are reborn into the world to guide and teach others so that they too can reach enlightenment.

5. How do Buddhists worship?

For Buddhist meditation is an important part of Buddhism. They usually sit on the floor, with crossed legs and try to empty their mind of all thoughts. They focus on what is really important. The point of meditation is to rise above any worries they may have. By meditating Buddhists believe that they will become better people and reach enlightenment. Buddhists can also use prayer flags to aid meditation. Buddhists, for centuries, have planted these flags outside their homes and temples for the wind to carry the positive vibrations across the area they are placed. Prayer flags bring happiness, long life and prosperity. They also provide a calm and spiritual environment to help people to meditate.

6. What is Buddhism like in Britain today?

In Britain, there are about 178,000 people who are Buddhists, which is still growing. In 1907 The Buddhist Society of Great Britain and Ireland was formed. This was succeeded in 1924 by The London Buddhist Society. It was the first really successful organisation in Britain to provide a platform for all groups and traditions of Buddhism.

In Britain much like other places in the world there is much preparation and excitement around the Buddhist festivals that take place in British temples and monasteries at various times of the year. Food is prepared at or taken to the temples, and gifts are presented by lay people to the monks of money, sometimes robes, household goods, and food for the kitchen storeroom. this is an opportunity to make offerings to support the temples and monks in their way of life.

Key Terms	Definition	Contextual sentence
Buddha	A title given to the founder of Buddhism, Siddhartha Gautama (c. 563–c. 483 BC). Also, a term used for a person who has attained full enlightenment.	The Buddha was a prince before he became a religious teacher.
Dharma	The spiritual law within Buddhism.	In order to be a good Buddhist, you must follow the Dharma.
Eightfold Path	The path to help Buddhists towards enlightenment which have eight steps.	One of the four noble truths is the beliefs in the Eightfold path.
Enlightenment	Meaning to 'awaken'. I Buddhism enlightenment helps Buddhists achieve Moksha	The Buddha was the first person to achieve enlightenment.
Four noble truths	The four central beliefs containing the essence of Buddhist teaching.	Buddha discovered the Four Noble Truths when he attained complete enlightenment.
Karma	Meaning action. In Buddhism karma can affect your next life.	If you are reincarnated as a human you must have positive Karma.
Mandalas	A spiritual and ritual symbol in Hinduism and Buddhism, representing the universe.	Each mandala is a prayer wheel that symbolizes the universe
Reincarnation	The rebirth of a soul in another body.	Being reborn as an animal is an example of reincarnation.
Sangha	The Buddhist community	The Sangha is spilt into monastic Buddhists and Lay Buddhists.
Wesak	An important Buddhist festival, commemorating the birth, enlightenment, and death of the Buddha.	During Wesak Buddhists visit their local temples.

Why did the English go to war with each other?

In 1642, thousands of Englishmen went to war. England was at war with itself. This is called a civil war. Parliament had worked with the monarch but now they were against the King. Charles I began to argue with parliament, he believed they were there to serve him. Parliament wanted a say in the running of the country.

Royalists	King Charles I and his followers
Parliamentarians	Parliament and their followers

Why did the Royalists go to war?
- Charles I believed in the divine right of kings. This meant that God had appointed him as king, and no one could oppose him. He felt that Parliament were trying to stop him. Some people felt that they had to fight for Charles as they didn't want to go against God.
- Parliament wouldn't give Charles more money. Charles supporters believed that parliament must allow Charles to act like a king and give him the money he needs.
- Parliament was there to help the king and do his bidding.

Why did the Parliamentarians go to war?
- Charles only used Parliament to collect taxes
- Charles sent parliament home for 11 years and ruled without them.
- Puritans, strict Christians, became more popular during this time. Many members of parliament were puritan. They were upset that Charles had married a Catholic princess.
- Poorer people were angry at the taxes Charles demanded.

The final straw came in December 1641 when Parliament sent Charles a long list of complaints about him and his way of running the country. Charles was furious. In January 1642, he took 300 soldiers to London to arrest five Members of Parliament. However, they had escaped by the time he got there. Charles then headed north to put an army together. Henrietta Maria, Charles wife, went to the Netherland to sell the crown jewels to pay for the war.

1642. The battle of Edgehill was a confused draw. Charles advanced as far as Turnham Green, five miles from London, but when 24,000 Londoners turned out to fight him, he turned back.

1643. Charles tried another attack on London, but he was defeated at the Battle of Newbury

1644. Parliament made an alliance with the Scottish Protestants, and Oliver Cromwell joined the Parliamentary cavalry. Cromwell defeated a Royalist army at Marston Moor by attacking them at teatime

1645. Parliament reorganised its armies into the 'New Model Army' led by Cromwell. Charles was decisively defeated at Naseby

Roundheads, Cavaliers and the New Model Army

On 22nd August 1642, King Charles gathered his army. The English Civil Way had begun. Ordinary people rarely chose which side to fight on. They supported the local landowner's side or the side that got to their town or village first. Family and friends could end up fighting each other. Rich lords usually fought for the king, as did Catholics. The king's support was strongest in the North, Wales, Devon, Cornwall and Somerset. Parliament was popular in the south especially London and towns and ports. Merchants, businessmen and Puritans would fight for Parliament.

What were the armies like?
- Richer gentlemen would go to battle on horseback. They were known as the cavalry.
- Ordinary people joined the pikemen or musketeers.
- The Royalist army wore a red sash and the Parliamentarians wore yellow. This was so they could see who was on each side.

The New Model army

- The first battle of the Civil War – Edgehill 1642 - was a draw.
- The commanders of Parliament's army were shocked by their troops lack of discipline and skill.
- This was the first fighting many soldiers had seen and they had little training.
- Orders were ignored, soldiers fled in panic, and it was impossible to control the army.
- The king's cavalry were experienced and trained and nearly wiped out Parliament's forces.
- To upgrade its army, Parliament created a new fighting force – England's first professional - the New Model Army.
- Oliver Cromwell (an MP) had argued in Parliament the army should be improved. Thomas Fairfax was given the job of reorganising and training the soldiers.

The Royalists were known as **Cavaliers**. 'Cavalier' comes from the Italian word *cavaliere*, which means soldier on horseback. The Cavaliers were known for their long hair and stylish clothes.

The Parliamentarians were nicknamed **Roundheads** because of their simple, short 'bowl-cut' hairstyles.

Cromwell was not in overall charge of the New Model Army; he oversaw the cavalry. The training paid off and Parliament won the battles of Marston Moor (1644) and Naseby (1645). In 1646, Charles escaped to Scotland thinking it would be safe. But the Scots sold him to Parliament for £400,000. Charles was brought to London for peace talks but escaped and persuaded the Scots to support him. More fighting broke out but didn't last. The King was beaten in August 1648 and brought to London again.

New Model Army Soldier; metal 'pot helmet'; leather coat; metal breastplate; sword; leather boots known as 'bucket tops'; leather gloves

HISTORY

King Charles I lost the civil war. At 2pm on 30th January 1649, Charles had his head chopped off. Many Members of Parliament felt they couldn't trust the king and met to discuss what to do. Out of 286 MPs, 240 thought Charles should be given another chance. However, when they next met for discussion, the same 240 MPs were stopped from entering by Cromwell's troops. This left 46 MPs to vote on the king. 26 votes to 20 decided the king should be put on trial for treason.

Day one. The trial begins in Westminster Hall, London on 20th January 1649. Charles was brought into court by soldiers. Out of 135 judges only 67 turned up. The charges were read, and this said Charles was a traitor, a murder and enemy of England. The leading judge, asked Charles if he was guilty. Charles laughed and refused to accept that the court could legally put him on trial.

Day two. 22nd January 1649. 70 judges turned up. The king again refused to plead guilty or not guilty.

Day three. 23rd January 1649. 71 judges turned up. Charles refused to plead guilty. He was taken away after just a few minutes.

Days 4-6. Charles was not brought back to court for the next few days. The judges wrote down a guilty plea even though Charles had refused to answer. Some people thought the court had no right to put the king on trial. Witness evidence was heard.

Days 7. 68 judges turned up. Charles wanted to speak but wasn't allowed. The court said the king was guilty and would be put to death. The execution was set for the 30th January 1649. The death warrant was signed by 59 judges.

- Charles spent his last days in London.
- The execution was delayed because the executioner refused to do it. 38 men refused. Eventually two men agreed to do it in disguise. To this day they are unknown.
- The king calmly walked up to the block, prayed and his head was taken off with one clean chop.

After King Charles I was executed, the country became a republic. This means a country without a king or queen. The country stayed like this for 11 years. Oliver Cromwell became the leader of the country.

Who was Oliver Cromwell?
- A Member of Parliament and army leader
- A puritan (strict protestant) who led simple lives. They wore plain clothes and didn't like sport or entertainment. However, Cromwell himself wasn't very strict and drank alcohol, liked music and hunting.
- Parliament ran the country to start with but needed a leader. Cromwell became Lord Protector and was paid £100,000 (£10 million today) a year.
- He divided the country into 11 districts and appointed a Major - General to run each one.
- He introduced new laws to improve peoples behaviour. Many things were banned.

What was banned?
- Football
- Inns
- Bear baiting
- Theatres closed
- Maypole dancing
- Gambling
- Christmas

Puritans banned several traditional feast days. They believed that Christmas was sinful, and the bible doesn't mention it. Laws banned anyone for attending a Christmas church service. Shops and markets were told to stay open. Soldiers patrolled the streets to ensure people were following the rules. They would take any food being prepared for a Christmas celebration.
By 1658, Cromwell was becoming unpopular. Ordinary people didn't want to live with the strict rules. Oliver Cromwell died in September 1658.

Why did people like Cromwell?	Why did people dislike Cromwell?
• Cromwell was a good soldier • Cromwell was a respected politician • Cromwell helped to improve the army • People thought Cromwell would run the country better than the king • Cromwell welcomed Jewish people back to the country. They had been expelled from the country in 1290 by Edward I. • Cromwell ended a war with the Netherland and sorted problems out the Portugal. • Cromwell made a deal with France against Spain. Which had benefits for England.	• Cromwell banned sport and entertainment that ordinary people enjoyed. People caught were punished. • Cromwell didn't stick to the rules himself. He enjoyed music and hunting. • Cromwell would put his enemies in prison without asking parliament. • Cromwell didn't want to give all ordinary people the vote. • Cromwell ruled without parliament between 1653 and 1658. This was just like the king that had been executed. • People hated Cromwell's strict rules. • Cromwell and his army killed at least 5000 people in Ireland in 1649. This included men, women and children.

41

Charles II

On the 29th May 1660 King Charles II returned to London after living abroad for ten years. England had been without a king since the day Charles I had been executed. When Oliver Cromwell died his son Richard had been chosen to run the country. But Richard didn't want the job. Parliament asked Charles I son Charles II to become the king. Britain once again had a monarchy

Charles brought back sports and entertainment. This earned him the nickname the merry monarch. Charles liked having fun and was often seen gambling and visiting the theatre. Christmas was celebrated once again.

Charles encouraged science and loved art, maths, drama and music. He built a good relationship with Parliament.

Religion
• Cromwell had allowed people to worship in almost any way. Charles wanted this to continue but Parliament did not. In 1664 it banned all religious services that were not Church of England.

The Lords
• Charles II was married to a Princess called Catherine from Portugal. They didn't have any children together. When Charles dies, he would be replaced by his brother James.

The Great Plague

A plague is a fast-spreading killer disease. Plague happened many times in Tudor and Stuart times. One of the worst outbreaks happened in 1665 and killed up to 100,000 people in London and thousands more across the country. It became known as the Great Plague.
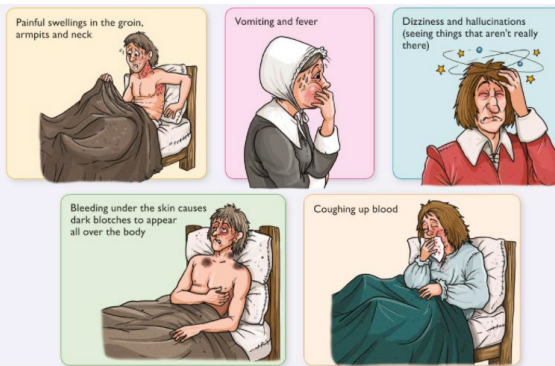
There are different types of plague. Most historians think the plague from 1665 was bubonic plague. This gets its name from the buboes, huge round boils. They could be found in victim's armpits or groin. Other symptoms are on the picture below:

What did people think caused the Great Plague?
• The planets
• God
• Cats or dogs
• Poisonous air (miasma)

The real cause
Germs that lived in the blood of the black rats and in the fleas on their bodies. The fleas would hop onto humans, bite them, and pass on the disease. Historians think that infected rats and fleas were brought to England aboard boats bringing goods from the Netherlands.

Painful swellings in the groin, armpits and neck / Vomiting and fever / Dizziness and hallucinations (seeing things that aren't really there) / Bleeding under the skin causes dark blotches to appear all over the body / Coughing up blood

Attempts to control the plague
• Houses containing victims were boarded up and marked with a red cross. No one left or entered the house for a month
• The dead to be buried at night in special plague cemeteries
• Victim's clothing burnt
• Pubs and theatres closed
• Dogs and cats killed. Animals banned from London city

The impact of the plague
• Rich Londoners moved out of the city. The King left in July 1665
• Parliament was postponed and court cases moved to Oxford.
• The city was so quiet grass began to grow in the streets.
• Business in the city was affected badly.
• Up to 100,000 people died in London.
• Up to half a million people across the country were killed.

Samuel Pepys
A lot of information we know about the plague comes from Samuel Pepys diary. He was a London MP and wrote in his diary almost everyday from 1660 to 1669. His diary tracks the spread of the plague and the impact.

The Great Fire of London

On Sunday 2nd September 1666, a fire started in London. Over the next three days it blazed out of control across the city, destroying more than 13,000 homes and 88 churches. Samuel Pepys also wrote about the fire in his diary.

How did the fire spread?
The fire got worse during the day. London's building were close together and made from wood and burnt quickly. There was no fire service, people tried pouring water on the fire. By the evening Charles II was concerned and ordered houses be pulled down that were in the fires path. This was called a fire break. But people didn't want to lose their homes, so only allowed it at the last moment, when it was too late. Strong winds helped the spread the fire over the next few days. Londoners fled the city with their possessions on carts. On Wednesday, the King ordered rows of houses to be blown up with gunpowder. The gaps stopped the fire and by the Thursday it had started the die down. The official death toll was six but around 100,000 people were now homeless.

Who started the fire?
• The fire started in a bakery near Pudding Lane, run by Thomas Farriner
• Many people at the time didn't believe it was an accident.
• They believed it was a foreign Catholic plot.
• A Frenchman named Robert Hubert was arrested for starting the fire. He confessed and was found guilty and hanged.
• Hubert couldn't have started the fire as he wasn't in the country.
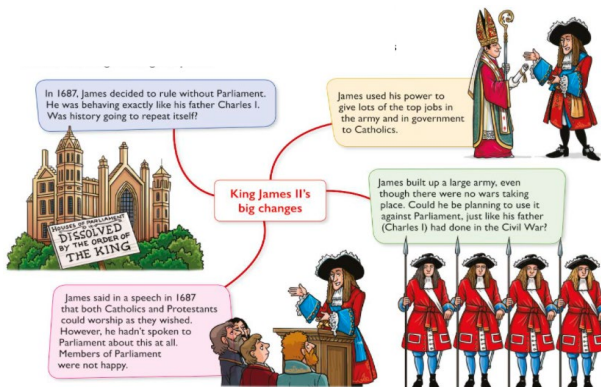
Rebuilding the city
• Architects like Christopher Wren produced ideas for the new city.
• New homes should be made of brick or stone not wood.
• All new streets had to be wide.
• New sewers were built.
• Wren rebuilt St Paul's Cathedral.
• Insurance companies started up.

Charles II died in 1685. However he did not have a child that could take over as King or Queen. Despite having 12 children he didn't have any with his wife. The other children were not allowed to inherit the throne. Charles younger brother became King James II. However James had decided to follow the Catholic religion. The people of Britain were now Protestant. Some people worried that James might make religious changed and that there might be a religious war. James was quite old and his children Mary and Anne were Protestants. Some people thought that the king might die soon and his daughter Mary would take over. James started to make changes as soon as he was king, people in parliament started to become worried.

Mary and William became joint rulers in 1689. But they didn't enjoy an easy reign. There were rebellions in both Ireland and Scotland. William eventually stopped this with force from his army.
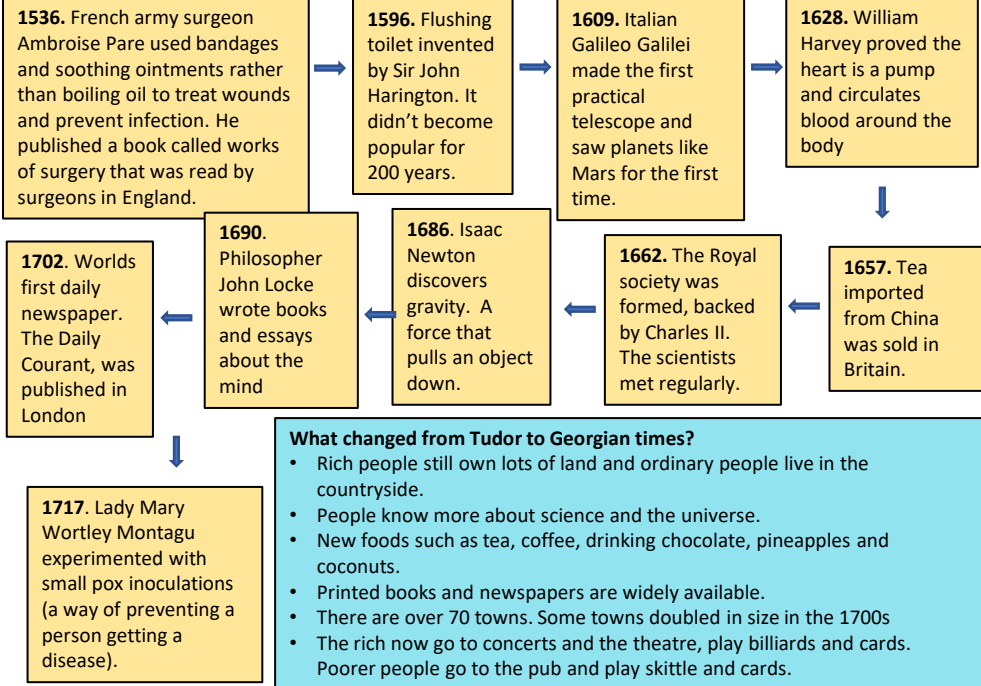
Ireland and Scotland
- After James II had fled to France in 1688 he landed in Ireland and gathered a Catholic army the following year.
- William sent troops to Ireland and at the Battle of Boyne in 1690, James's forces were crushed. William took away land from Irish Catholics and gave it to English Protestants. Strict laws were introduced, banning Irish Catholics from voting
- Many Scots supported the James especially in the Scottish Highlands. In 1692, William asked important Scottish families (clans) to swear loyalty to him. One clan missed the deadline, MacDonald's of Glencoe, and William ordered them killed.

In 1687, James decided to rule without Parliament. He was behaving exactly like his father Charles I. Was history going to repeat itself?

James used his power to give lots of the top jobs in the army and in government to Catholics.

King James II's big changes

James built up a large army, even though there were no wars taking place. Could he be planning to use it against Parliament, just like his father (Charles I) had done in the Civil War?

James said in a speech in 1687 that both Catholics and Protestants could worship as they wished. However, he hadn't spoken to Parliament about this at all. Members of Parliament were not happy.

In 1688, James new wife gave birth to a baby boy. He was now the heir to the throne above Mary and Anne. As its mother and father were both Catholic the baby was sure to be Catholic too. This would mean that when he would be a Catholic king and his son after him would be a Catholic king and so on. Parliament were worried about this as they were mostly Protestants.

In 1694 Mary died of smallpox leaving William alone. A new law was passed in 1701 called the Act of Settlement. This stated that any King or Queen should always be a Protestant. William died in 1702 and Anne became the Queen. Anne had given birth to 17 children but they had all died before she became Queen. When Anne died in 1714 her closest Protestant relative George Louis of Hanover, an area of Germany, became the King of England. The Stuart family's reign was over and the new family were called the Hanoverians now ruled. This family are also called the Georgians due to the next three kings being called George.

United Kingdom
Parliament passed the Act of Union in 1707. This was to make the country more secure. This meant that England, Scotland and Wales were united with one Parliament in London. Ireland was largely under English control. Queen Anne was the first monarch to officially call herself Queen of Great Britain and Ireland.

Mary and William become the rulers
- They had to agree to some conditions before becoming monarchs.
- Had to agree to involve Parliament in running the country.
- Banned from raising taxes without Parliaments agreement.

By the summer some leading protestants had created a plot to replace King James with his eldest daughter Mary and her husband William od Orange. The plan was to gather a foreign army and fight James. They would then become joint King and Queen, something Mary insisted on. Mary and William's army arrived in Devon on 5th November 1688. James got ready to fight but one of his key generals swapped sides. James realised he couldn't win and escaped to France with his wife and son. No fighting took place but the ruler had been replaced. Protestants called this the Glorious revolution.

1536. French army surgeon Ambroise Pare used bandages and soothing ointments rather than boiling oil to treat wounds and prevent infection. He published a book called works of surgery that was read by surgeons in England.

1596. Flushing toilet invented by Sir John Harington. It didn't become popular for 200 years.

1609. Italian Galileo Galilei made the first practical telescope and saw planets like Mars for the first time.

1628. William Harvey proved the heart is a pump and circulates blood around the body

1690. Philosopher John Locke wrote books and essays about the mind

1686. Isaac Newton discovers gravity. A force that pulls an object down.

1662. The Royal society was formed, backed by Charles II. The scientists met regularly.

1657. Tea imported from China was sold in Britain.

1702. Worlds first daily newspaper. The Daily Courant, was published in London

The Bill of Rights
- Mary and William then had to agree to a series of new laws known as the Bill on Rights
- This set up the type of monarchy we have today.
- The monarch is the head of state but their powers are limited by laws and rules.
- The laws and rules of a country are called a constitution. This is why the British system of government is sometimes called a constitutional monarchy.

1717. Lady Mary Wortley Montagu experimented with small pox inoculations (a way of preventing a person getting a disease).

What changed from Tudor to Georgian times?
- Rich people still own lots of land and ordinary people live in the countryside.
- People know more about science and the universe.
- New foods such as tea, coffee, drinking chocolate, pineapples and coconuts.
- Printed books and newspapers are widely available.
- There are over 70 towns. Some towns doubled in size in the 1700s
- The rich now go to concerts and the theatre, play billiards and cards. Poorer people go to the pub and play skittle and cards.
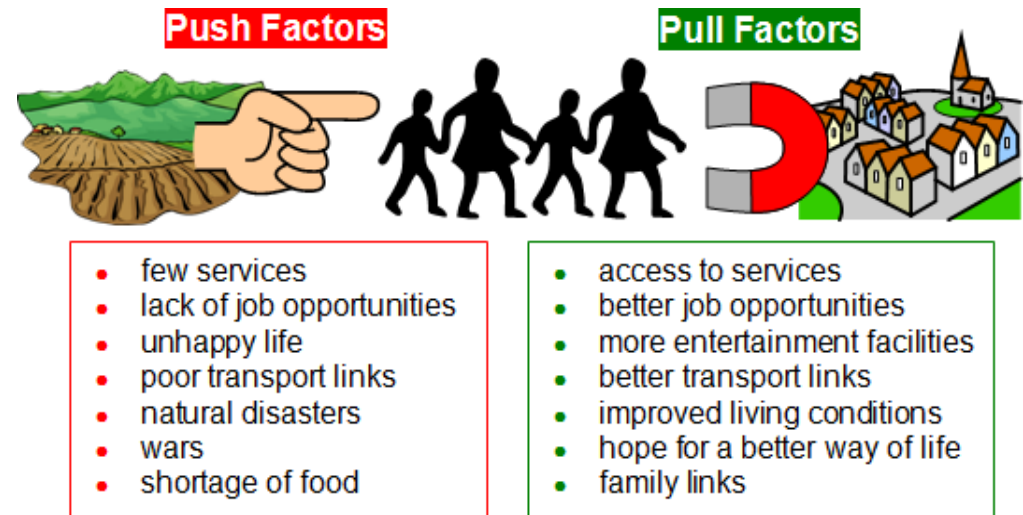
Population Growth and Tectonics Tier 3 Vocabulary

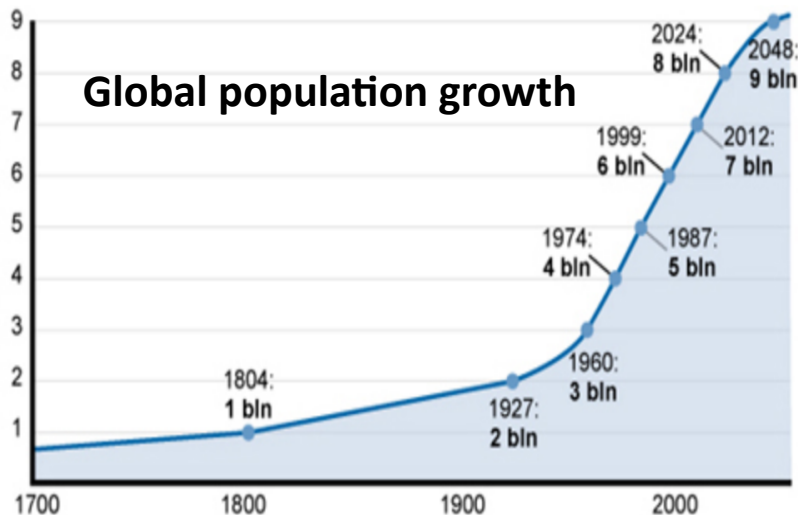| Key Vocabulary	Definition	Contextual Sentence
Megacities	An urban area with a total population in excess of 10 million people.	Tokyo is an example of a **megacity**.
Migration	When people move from one area to another.	**Migration** makes a country more diverse and multicultural.
Economic migrant	Someone who migrates with the main purpose of finding work or escaping poverty.	**Economic migrants** can cross international borders seeking a better quality of life.
Rural-urban fringe	A zone of transition between the built-up area and the countryside.	Many different land uses compete to build in the **rural-urban fringe**.
Squatter settlement	An area of poor quality housing, lacking in amenities such as water supply, sewage and electricity.	**Squatter settlements** are predominantly found in lower-income countries.
Urban Sprawl	The unplanned growth of urban areas into their surrounding countryside.	**Urban sprawl** needs to be restricted to save the countryside.
Convection Currents	The circular movement of magma within the Earth's mantle.	Heat rising and falling inside the mantle creates convection currents.
Planning	Actions taken to enable communities to respond to, and recover from natural disasters.	Governments should have planning strategies in place to ensure communities are well prepared for hazards.
Prediction	Attempts to forecast when and where a natural hazard will strike.	Scientists can use prediction methods such as monitoring the release of gases to predict future hazards.
Protection	Actions taken before a hazard strikes to reduce its impact.	Examples of protection include educating people or improving building design.
Richter Scale	A scale used for measuring the magnitude (strength) of an earthquake.	The 1960 Chilean Earthquake measured 9.5 on the Richter scale.
Secondary Effects	The after effects that occur as indirect impacts of a natural event.	Secondary effects include power outages due to fallen trees.
Volcano	An opening in the Earth's crust from which lava, ash and gases erupt.	The Calbuco volcano began erupting again in 2015 for the first time since 1972.

GEOGRAPHY

Immigration Argument

Pros	Cons
• Increased economic growth • More flexible labour markets • Fills jobs vacancies in unpopular jobs • Provides skilled workers, such as nurses, doctors, teachers. • Potential entrepreneurs. • Working-age migrants provide net benefit to government budget. • A solution to an ageing population • Greater cultural diversity	• Potential fall in real wages, especially for low-skilled native workers. • Increased pressure on public services like health/education, congestion on roads. • Over-population could increase cost of housing/renting. • Impact on real GDP per capita can be negative. • Social disharmony from rapid immigration.

Why do people migrate?

Push Factors   **Pull Factors**

Push Factors	Pull Factors
• few services • lack of job opportunities • unhappy life • poor transport links • natural disasters • wars • shortage of food	• access to services • better job opportunities • more entertainment facilities • better transport links • improved living conditions • hope for a better way of life • family links

Dharavi slum (Mumbai)

Pollution and disease are common from the open sewers - there are an average of 4,000 cases of typhoid and diphtheria each day.

It is overcrowded, noisy and smelly

Many houses are made from cardboard, wood, corrugated iron, or the metal from oil drums.
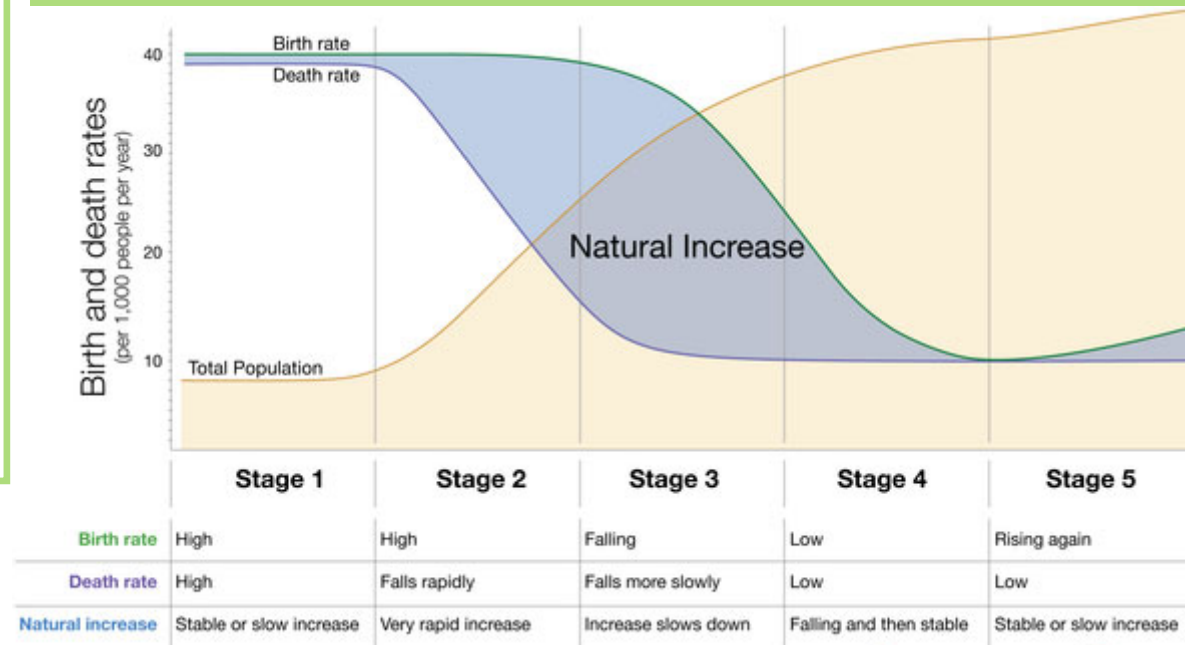
There's a lack of sanitation and clean drinking water for most residents.

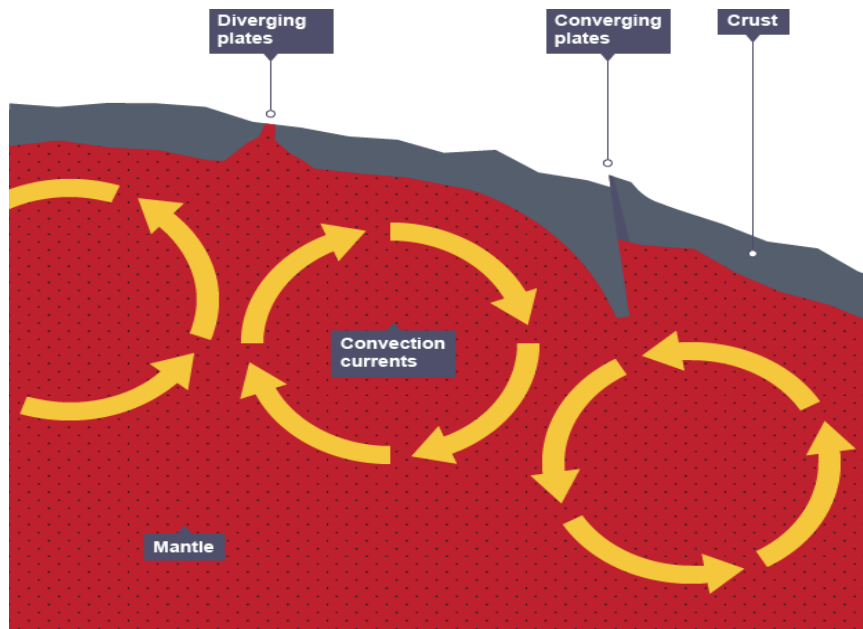75% of people have a job, and most work locally. The recycling industry has an annual turnover of £350 million.

Global population growth

Global population growth chart:
- 1804: 1 bln
- 1927: 2 bln
- 1960: 3 bln
- 1974: 4 bln
- 1987: 5 bln
- 1999: 6 bln
- 2012: 7 bln
- 2024: 8 bln
- 2048: 9 bln

The Demographic Transition Model (DTM) shows changes over time in the population of a country. The total population responds to variations in birth and death rates (natural change), as well as migration. As a country becomes more developed, its population characteristics change.

	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
Birth rate	High	High	Falling	Low	Rising again
Death rate	High	Falls rapidly	Falls more slowly	Low	Low
Natural increase	Stable or slow increase	Very rapid increase	Increase slows down	Falling and then stable	Stable or slow increase

Convection Currents

Convection currents Heat from the core makes magma in the mantle rise towards the crust. As the hot current nears the crust, it begins to cool and sink back towards the core. As the magma sinks, it drags the plates across the surface of the Earth.
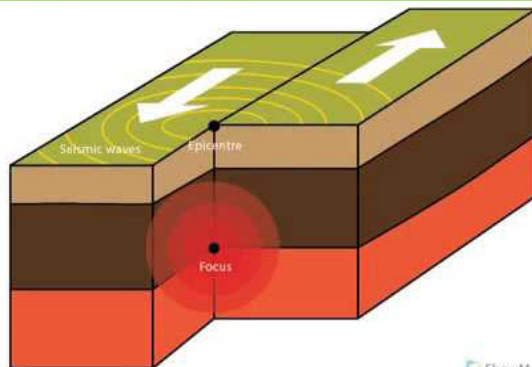
Plate Boundaries Distribution

The Pattern of Earthquakes
An earthquake is a sudden, violent period of ground-shaking. Most occur at the margins of slowly-moving tectonic plates. Friction and sticking between plates create enormous pressures and stresses which build to breaking point.
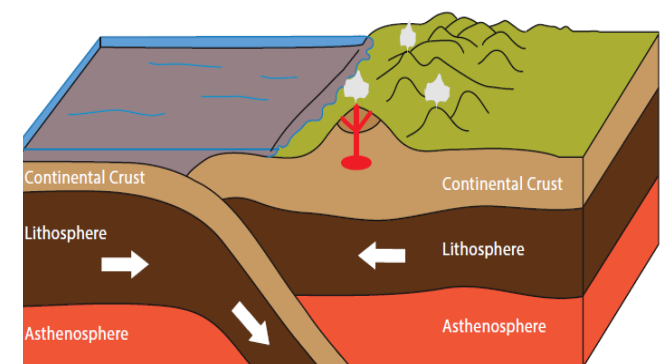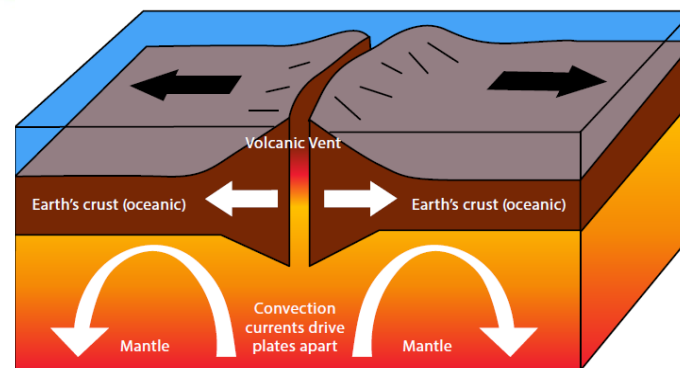
Living at risk from tectonic hazards
The majority of tectonic hazards occur at plate margins, some of which run through densely populated regions such as Japan, parts of China and southern Europe.

Type of Plate Boundary: Conservative, Constructive and Destructive

Spanish: Knowledge Organiser Year 8 Term 2

Unit 3: ¡Por fin de vacaciones!

1 ¡Allá, voy! *Here I come!!*

Voy..	*I go..*	Estados Unidos	*USA*
en tren	*by train*	Inglaterra	*England*
en avión	*by plane*	Escocia	*Scotland*
en autocar	*by coach*	Irlanda	*Ireland*
en barco	*by boat*	Gales	*Wales*
en coche	*by car*	Turquía	*Turkey*
en bicicleta	*by bike*	Alemania	*Germany*
en motocicleta	*by motorbike*	Francia	*France*
a pie	*on foot*	Grecia	*Greece*
		Italia	*Italy*

2 Tengo mucho que hacer *I have a lot to do*

Suelo + inf verb.	*I usually ….*
tomar el sol	*sunbathe*
pasear por la playa	*stroll along the beach*
nadar en el mar	*swim in the sea*
comer en el restaurante	*eat in an restaurant*
jugar al vóley-playa	*play beach- volley*
visitar los monumentos	*visit monuments*
ir de compras	*go shopping*
sacar fotos	take phots

3 Te cuento que pasó… *I'll tell you what happened ..*

el año pasado	last year
el mes pasado	last month
en mis últimas vacaciones	on my last holiday
el verano pasado	last summer
al aire libre	in the open air
la barbacoa	bbq
el camping	campsite
la isla	island
bailer en una discoteca	to dance in a night club
comprar recuerdos	to buy souvenirs
hacer ciclismo	to go cycling
nadar en la piscina	to swim in the pool
probar la gastronomía local	to try the local cuisine

4 ¡Fue guay! *It was cool!*

Fue	It was…
Fueron	They were…
Guay	cool
Fenomenal	amazing
Genial	Great
Divertido	fun
Aburrido	boring
Interesante	interesting
Emocionante	exciting

Gramática: The preterite tense (past tense) is used to describe actions in the past
To form it you find your verb and remove the last 2 letters

verbs ending in –ar (eg.bailar)		*verbs ending in er/ir* (eg.comer/vivir)	
I	-é (bail**é** = I danced)	I	-í (comí = I ate/ viví= I lived)
You	-aste	You	-iste
he/she/it	-ó	He/she/it	-ió
we	-amos	we	-isteis
you (plural)	-asteis	you (plural)	-isteis
they	--aron	they	-ieron

Irregular Verbs in the preterit tense

Ir	*to go*	Ser	*to be*
Fui	*I went*	*I was*
Fuiste	*you went*	*you were*
Fue	*he/she/ it went*	*he/she/ it was*
Fuimos	*we went*	*we were*
Fuisteis	*you went (plural)*	*you were (plural)*
Fueron	*they went*	*they were*

Unit of work 3: Key language in context

Saying where we go on holiday and how we travel	**Voy de vacaciones a** España **Vamos a** Madrid **Voy en** avión **Van** a pie	- **I go on holiday to** Spain - **we go to** Madrid - **I go by** plane -**They go** on foot
Saying what we usually do on holiday	**Suelo tomar el sol** Mi hermana **suele nadar en el mar** Mis padres **suelen visitar los monumentos** **We usually walk along the beach**	- I usually sunbathe - my sister **(she) usually swims in the sea** - my parents **(they) usually visit monuments** - **solemos pasear por la playa**
Describing a past holiday	El verano pasado **fui a** Menorca El año pasado **me alojé en** un apartamento Durante mis últimas vacaciones **saqué selfis**	**-** Last summer **I went to** Menorca - Last year **I stayed in** an apartment **-** During my last holidays **I took selfies**
Expressing an opinion in the past	**¡Fue fenomenal!** ¡Fue aburrido! -Mis vacaciones fueron divertidas	- **It was amazing!** -it was boring! My holidays were fun

Unit 4: Aquí mando yo

1 Generación digital *Digital generation*

descargo música	*I download music*
gasto batería	*I waste/use battery*
hago la compra por Internet	*I do the shopping online*
juego a videojuegos	*I play video games*
llamo por videollamada	*I make a video call*
saco fotos	*I take photos*
subo fotos	*I upload photos*
veo vídeos	*I watch videos*
la aplicación/la app	the *application ('app')*
las compras	the *shopping*
la conexión wifi	the *Wi-Fi connection*
la cuenta	the *account*
el navegador	the *sat-nav*
la radio digital	the *digital radio*
el supermercado virtual	the *virtual/online supermarket*
la tableta	the *tablet*

2 ¿Qué ponen en la televisión? *What's on TV?*

el concurso	*game show/quiz game*
los dibujos animados	*cartoon/animation*
el documental	*documentary*
la película	*film*
el programa de deportes	*sports programme*
el programa de humor	*comedy programme*
el programa musical	*music programme*
la serie	*series*
el telediario	*news*
la telenovela	*soap opera*
a la carta	*on demand*
el canal	*channel*
el capítulo	*episode, chapter*
el dispositivo	*device*
la experiencia	*experience*
hacer un maratón de	*to binge-watch*
la programación	*TV guide/schedule*
la variedad	*variety*

3 ¿En el cine o en casa? *In the cinema or at home!*

una película…	*a… film*
…cómica	*comedy*
…de aventuras	*adventure*
…de ciencia ficción	*science fiction*
…de dibujos animados	*animated*
…de miedo	*horror*
…de misterio	*mystery*
…del oeste	*western*
…musical	*musical*
…romántica	*romantic*
cautivador(a)	*captivating*
complejo/a	*complex*
decepcionante	*disappointing*
entretenido/a	*entertaining*
espeluznante	*terrifying*
impactante	*striking*
mejor	*better/best*
memorable	*memorable*
nuevo/a	*new*
peor	*worse/worst*
predecible	*predictable*
profundo/a	*deep, insightful*
sangriento/a	*gory*
triste	*sad*
me da miedo	*it scares me*
me hace pensar	*it makes me think*
me hace reír	*it makes me laugh*

A Gramática:

Negative expressions:

Nadie	*no one*
Ya no	*no longer*
Tampoco	*neither/ nor*
Casí	*almost*
Eg. Casí nadie almost no one	

Best and worst:

mejor	*best*
peor	*worst*
lo mejor	*the best thing*
lo peor	*the worst thing*

4 Somos melóman@s *We are music lovers*

los instrumentos	*instruments*
la música	*music*
tocar	*to play (an instrument)*
toco	I play..
la batería	the *drums*
la flauta	the *flute*
la gaita	the *bagpipes*
la guitarra	the *guitar*
la pandereta	the *tambourine*
el piano	the *piano*
la trompeta	the *trumpet*
el violín	the *violin*
el/la artista	the *artist, performer*
la banda	the *band/group*
el/la cantante	the *singer*
el concierto	the *concert*
el/la melómano/a	the *music lover*
la pasión	the *passion*

Gramática: Key verb

Acabar de + infinitive = to have just

Acabo	*I have just*
Acabas	*you have just*
Acaba	*he/she has just*
Acabamos	*we have just*
Acabáis	*you (all) have just*
Acaban	*they have just*

Eg. acabo de ver una película
   (I have just watched a film)

Unit of work 3: Key language in context

Saying what we use the internet for	**Veo** videos, **juego** videojuegos por Internet Siempre **descargo** música A veces **hago compras** por Internet Nunca **subo fotos**	**- I watch** videos. **I play** video games on the internet - **I** always **download** music - sometimes **I do shopping** on the Internet - I never **upload photos**
Talking about what's on TV	**¿Qué ponen en la tele?** A las cuatro **ponen** una película **¿Qué prefieres ver?** **Prefiero** (ver) una telenovela **Acabo de ver** una programa de deporte	**- What's on the tele?** - A four o'clock **there is** a film **on** **- What do you prefer to watch?** **- I prefer** (to watch) a soap **- I have just watched** a sports program
Talking about different types of films	**Mi película favorita se llama** Minions Es **una comedia** Es mi película favorita porque **me hace reír**	- **My favourite film is called** Minions - it is **a comedy** -it's my favourite film because **it makes me laugh**
Talking about musical tastes	**Toco la guitarra** **Toco el piano desde hace** tres años **Prefiero** la música pop **a** la música rap **Uso** Spotify **para escuchar música**	**- I play the guitar** - **I have played the piano for** three years - **I prefer** pop music **to** rap music **- I use** Spotify **to listen to music**

French:

Unit 3: Le monde des medias

3.1 La télé

les comedies	(the) comedies
les dessins animés	(the) cartoons
les documentaires	(the) documentaries
les émissions musicales	(the) music programmes
les émissions de sport	(the) sport programmes
les émissions de télé-réalité	(the) reality TV
les jeux télévisés	(the) game shows
les séries	(the) series
je les aime/adore	I like/love them
je les déteste	I hate them
je ne les aime pas	I don't like them
je les trouve…	I find them…
amusant(e)s	funny
intéressant(e)s	interesting
divertissant(e)s	entertaining
enfantin(e)s	childish
ennuyeux/ennuyeuses	boring
éducatifs/éducatives	educational
nuls/nulles	rubbish

3.2 La musique

la musique folklorique	folk music
la musique classique	classical music
ce que j'aime, c'est…	what I like is …
ce que je n'aime pas, c'est	what i don't like is…
ça me fait…	it makes me …
…danser/dormir/rêver.	dance/sleep/dream
ça me rend triste	it makes me sad
ça me rend heureux/heureuse	it makes me happy
ça me calme	it calms me
déprimant	depressing
ennuyeux	boring
entraînant/vif	lively
moderne	modern
rapide	fast

3.3 Quel dernier film as-tu vu ?

j'ai vu	I saw
un film d'action	an action film
un film d'arts martiaux	a martial arts film
un film comique	a comedy
un film d'horreur	a horror film
un film romantique	a romantic film
un film de science-fiction	a sci-fi film
un film à suspense	a thriller
un western	a western
au cinéma/en DVD	at the cinema/DVD
en streaming	streamed
à la télé	on TV
je l'ai aimé/adoré	I liked/loved it
je ne l'ai pas aimé	I didn't like it
c'était	it was
je le recommande	I recommend it
je ne le recommande pas	I don't recommend

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3.4 qu'est-ce que tu aimes lire ?

je préfère lire…	I prefer to read
j'aime lire…	I like to read
je n'aime pas lire…	I don't like to read
les biographies	(the) biographies
les autobiographies	(the) autobiographies
la literature non-romanesque.	(the) non-fiction
les romans d'amour	(the) love stories
les romans d'aventure	(the) adventure novels
les romans comiques	(the) comedies

les romans historiques	(the) historical novels
les romans d'horreur	(the) horror novels
les romans de science fiction	(the) sci-fi novels

3.5

et	and
aussi	also
donc	therefore
mais	but
par contre/en revanche	on the other hand
cependant/pourtant.	however

Unit of Work 3 - Key Language in Context

Say what you like/don't like to watch on TV	J'adore les séries et les comédies. Je déteste les dessins animés car je les trouve enfantins. Les émissions musicales – je les adore !	I love series and comedies. I hate cartoons because I find them childish. Music programmes – I love them!
Say what types of music you like/don't like	J'adore la pop car ça me fait danser. Ce que j'aime, c'est écouter différents types de musique. Ce que je n'aime pas c'est le classique car c'est ennuyeux et ça me rend triste.	I love pop because it makes me dance. What I like, is listening to different types of music. What I don't like is classical music because it is boring and it makes me sad.
Say what kinds of films you watch	J'ai vu un film d'action en streaming. J'ai regardé un film comique, c'était ennuyeux. Je ne le recommande pas. J'ai vu un film romantique. Dans ce film il y a deux personnages principaux.	I saw an action film by streaming/I streamed an action film. I watched a comedy, it was boring. I don't recommend it. I saw a romantic film. In the film there are two main characters.
Say what you like/don't like to read	J'aime beaucoup lire/Je n'aime pas lire. J'adore les romans d'aventure parce que c'est passionnant. En revanche, j'aime la littérature non-romanesque aussi. Un de mes livres préférés s'appelle *Frankenstein*.	I really like reading/I don't like reading. I love adventure novels because they are exciting. On the other hand, I like non-fiction books also. One of my favourite books is called *Frankenstein*.

Unit 4 : Accro à la technologie?

4.1 Alors quoi de neuf? Old+new tech

mon vieux portable	my old phone
mon nouveau smartphone	my new phone
mon nouvel ordiphone	my new phone
mon nouvel/vieil ordi	my new/old computer
ma nouvelle tablette	my new tablet
ma console de jeux	games console
je préfère le vieux/la vielle	I prefer the old one
je préfère le nouveau/la nouvelle	I prefer the new one
petit(e)/grand(e)	small/big
léger/légère	light (m/f)
modern	modern
démodé(e)	old fashioned
un appareil photo	camera
un écran tactile	touchscreen
des applis	apps
des écouteurs	headphones

4.2 La technologie juste pour s'amuser?

regarder des émissions en streaming	watching streamed programmes
écouter de la musique en ligne	listening to music online
jouer à des jeux en ligne.	playing online games
surfer et trouver des sites intéressants	surfing and finding interesting websites
aller sur les réseaux sociaux.	going on social media
passer des appels vidéo	doing video calls
divertissant	entertaining
éducatif	educational
informatif	informative
facile/simple	easy/simple
pas cher	cheap
pratique/rapide	practical/fast
je passe…heures par jour.	I spend…hours a day
j'ai arrêté de jouer à	I've stopped playing

4.4 pour ou contre? Pros and cons

Les nouvelles technologies …	New technologies …
… sont excellentes mais chères.	… are excellent but expensive.
… rendent la vie plus simple.	… make life easier.
Cela décourage l'activité physique.	They discourage physical activity.
On peut en devenir dépendant.	You can become dependant on them.
On risque de devenir antisocial.	You risk becoming antisocial.
Il y a un risque de/d' …	There's a risk of …
Il est facile de rester en contact …	It is easier to stay in contact …
Internet est une source d'information très riche.	The internet is a rich source of information.

4.3 Les ado + les reseaux sociaux

la cyberdépendance	cyber addiction
la cyberintimidation	cyber bullying
la cybersécurité	cyber safety
il est important de…	it's important to
il est essential de…	it's essential to
… se protéger en ligne	protect yourself online
… en parler avec un adulte	talk about it with an adult
…limiter l'utilisation de	limit the use of…
…ne jamais partager d'info	never share info
il est important d'effacer	it's important to delete
il faut traiter les autres	you must treat others
il ne faut pas donner ton nom complet	you must not give your full name

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Unit of Work 4 - Key Language in Context

Old and New Technology	J'aime mon nouveau smartphone parce que c'est moderne et léger. Il y a un appareil photo et beaucoup d'applis. Je n'aime pas ma nouvelle tablette, je préfère la vieille. Je préfère mon nouvel ordiphone car je peux lire mes mails et aller sur les réseaux sociaux.	I like my new smartphone because it is modern and light. There is a camera and lots of apps. I don't like my new tablet; I prefer the old one. I prefer my new smartphone because I can read my emails and go on social media.
Using Technology	J'adore écouter de la musique en ligne car c'est facile. Je passe deux heures par jour à jouer à des jeux en ligne. Chaque soir, j'aime regarder des émissions en streaming.	I love to listen to music online because it is easy. I spend two hours each day playing games online. Every evening, I like to watch streamed programmes.
Social Media	Il est nécessaire de limiter l'utilisation des réseaux sociaux. Il est essentiel de se protéger en ligne. Il y a le risque de la cyberintimidation.	It is necessary to limit the use of social media. It is essential to protect oneself online. There is a risk of cyber-bullying.
Pros and Cons of new technologies	Les nouvelles technologies rendent la vie plus simple mais on peut en devenir dépendant. Il y a un risque de la cyberdépendance. Je peux bénéficier des nouvelles technologies.	New technologies make life easier but you can become dependent on them. There is a risk of cyber-addiction. I can benefit from new technologies.