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Kettering Buccleuch Academy



Knowledge Organiser 2

END OF YEAR ASSESSMENTS

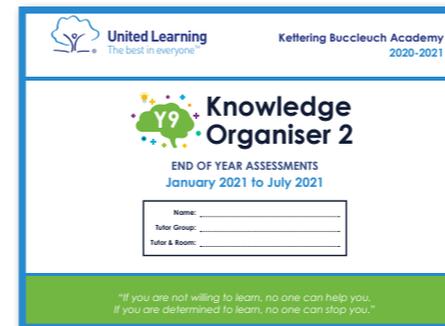
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Tutor Group:
Tutor & Room:

*“If you are not willing to learn, no one can help you.
If you are determined to learn, no one can stop you.”*

Contents

1. Your Knowledge Organiser and Self-Quizzing Book	23. IT	Critical Success Factor
2. How do I complete Knowledge Organiser homeworks?	24. IT	The Project Life Cycle
3. Literacy Fundamentals	25. Literacy	Up-levelling your writing
4. Literacy Fundamentals	26. Literacy	High-frequency words
5. Whole Academy Reading - Lord of The Flies	27. Mathematics	Definitions
6. Whole Academy Reading - Lord of The Flies	28. Mathematics	Metric conversions
7. Art	29. Mathematics	Circles
8. Art	30. Music	Live Lounge Ensemble
9. Drama	31. Music	Live Lounge Ensemble
10. Drama	32. PE	Cardiorespiratory System
11. English	33. PE	Muscoskeletal System
12. English	34. PRE	Essential Knowledge
13. English	35. PRE	Judaism
14. English	36. Science	Biological Systems and Processes 9BB
15. French	37. Science	Energetics and Rates 9CE B
16. French	38. Science	Sound 9PS
17. Geography	39. Science	Looking Ahead to GCSE
18. Geography	40. Science	Looking Ahead to GCSE
19. German	41. Spanish	Structures, sentence starters, tenses...
20. German	42. Spanish	Key vocab per module
21. History		The Causes of WW2 and Nazi Germany
22. History		The Holocaust

Your Knowledge Organiser and Self-Quizzing Book



Knowledge Organisers

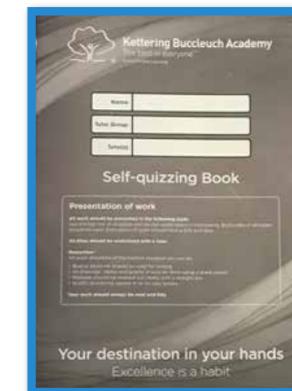
Knowledge Organisers contain critical, fundamental knowledge that you MUST know in order to be successful in Year 9 and subsequent years.

They will help you recap, revisit and revise what you have learnt in lessons in order to move the knowledge within from your short-term memory to long-term memory.

Self-Quizzing Book

This is the book that all Knowledge Organiser homework is to be completed in.

You must follow the simple rules as to how they are to be used.



You **MUST** bring your Knowledge Organiser and Self-Quizzing Book to **EVERY** lesson and place it on your desk at the beginning of each lesson.

You **MUST** keep all of your Knowledge Organisers and Self-Quizzing Books because the fundamental knowledge required in Year 9 will also be required in years 10 and 11.

Knowledge Organisers are **NOT** a replacement for revision guides but they include the fundamental knowledge that ALL students in Year 9 require.



How do I complete Knowledge Organiser homeworks?

You will be set a **MINIMUM** of 2 Knowledge Organiser homeworks in every subject each half term

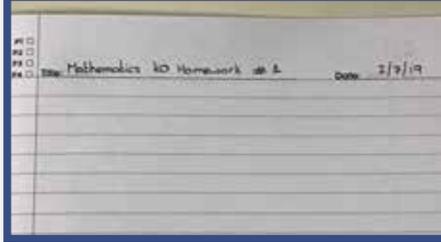
STEP 1

Check SMHW and identify what words/ definitions/facts you have been asked to learn.



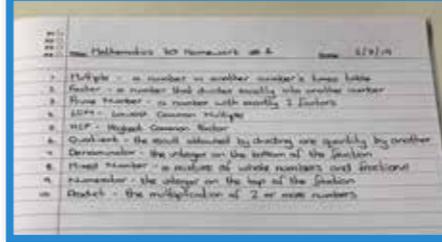
STEP 2

Write today's date and the title from your Knowledge Organiser.



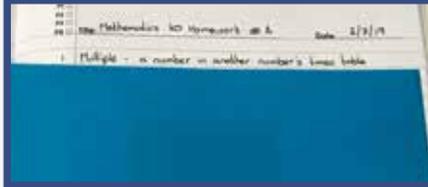
STEP 3

Write out the keywords/definitions/facts you have been set from SMHW in **FULL**.



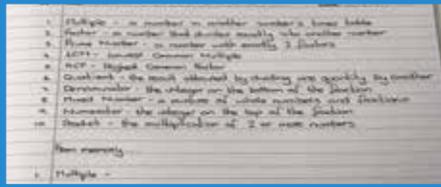
STEP 4

Cover the definitions in your SELF-QUIZZING BOOK, apart from the first. **Read it, Cover it, Say it** in your head, check it... **REPEAT** until confident.



STEP 5

Cover up ALL the definitions/facts and write them out **from memory** in your SELF-QUIZZING BOOK.



STEP 6

Check your answers and correct where required. Repeat Steps 4 to 6 until you are confident.

You will be **tested** on the words/definitions/facts as a starter activity in your lesson on the day that the homework is due.

This will be completed in your normal exercise book and you will mark it in class.

Can I write in paragraphs?

The TIPTOP rule

You move onto a new paragraph when you change Time, Place, Topic or Person.

1. I always start an essay with **an introduction** which addresses the question.
2. I finish an essay with **a conclusion** to summarise the main points of my argument and to address the question again.
3. I use **connectives** in each paragraph to link my ideas and to put them in a logical order.

Furthermore
Whereas
Nevertheless
Alternatively
Consequently

But
Since
Yet
Therefore
Besides

Meanwhile
Nonetheless
However
Although
Moreover

Have I used the correct grammar?

I am aware that I must use language that is appropriate to my reader.

- **No slang** that lesson was ~~beginn~~^{ing}
- **No informal language** I'm ~~gonna~~ do my homework now

Other things to consider:

- ✓ I am clear about the **purpose** of this piece of writing
- ✓ I know who my **audience** is
- ✓ I will use a suitable **layout** and **text type**

Literacy Fundamentals
1 of 2

I am proud of my work because...

- I have written clearly so that my reader can understand my writing easily.
- I have checked my **spelling** and corrected any errors.
- I have used full sentences with a subject and a verb.
- I have used correct **punctuation** and **grammar**.
- I have paragraphed my work using **TIPTOP**.
- My writing is suitable for the person I am writing for.

Can I spell familiar words accurately?

Common contractions

We must use an apostrophe to replace any letter(s) we have left out.

11 o'clock	How's	They'd	Where'll
Aren't	I'd	They'll	Where's
Can't	I'll	They're	Who'd
Couldn't	I'm	Wasn't	Who'll
Didn't	Isn't	We'd	Who's
Doesn't	It'd	We'll	Why'd
Don't	It'll	We're	Why'll
Hadn't	It's	Weren't	Why's
Hasn't	Mightn't	What'd	Won't
Haven't	Mustn't	What'll	Wouldn't
He'd	Shan't	What's	You'd
He'll	She'd	When'd	You'll
He's	She'll	When'll	You're
How'd	She's	When's	
How'll	Shouldn't	Where'd	

Can I use different sentence types?

Simple sentences: Contains a subject and a verb and can contain an object.

- Sarah likes to read in the library.
- Tom enjoys reading at home.

Compound sentences: Joins two simple sentences using the connectives: *for, and, nor, but, or, yet, so*.

- Sarah likes to read in the library but Tom prefers to read at home.

Complex sentences: A complex sentence contains a conjunction such as *because, since, after, although, or when*.

- Because Robert felt tired, he only studied for an hour.
- Although the rain had stopped, the pitch was still water-logged.
- Paul enjoys Music, however, he is more proficient in Art.

Homophones

I have checked that I have not mixed up my homophones.

Affect/effect	One/won
Bare/bear	Passed/past
Brake/break	Peace/piece
Buy/by	Practice (n)/practise (v)
For/four	Read/red
Flour/flower	Sea/see
Grate/great	Sight/site
Hair/hare	Son/sun
Hole/whole	To/too/two
Hour/our	Wait/weight
Knight/night	Weak/week
Know/no	Wear/where
Meat/meet	

Basics:

- Every sentence must start with a capital letter.
- Every sentence must finish with some form of punctuation: .?!
- Proper nouns need capital letters. These are **unique** people, places or things e.g. *there are many cities so 'city' doesn't take a capital letter. However there is only one London, therefore it takes a capital letter.*
- When writing titles of works such as books, films or plays:
 - Capitalise the first word
 - Capitalise any main/important words
 - Don't capitalise minor words such as 'and', 'of' or 'the' e.g. The Sound of Music, The Wizard of Oz, Harry Potter and the Goblet of Fire
- When writing speech:
 - ✓ Go to a new line when a different person speaks e.g. "Good morning" said the Headteacher.
 - "It's the afternoon!" replied the student.
 - ✓ Each person's speech is marked with speech marks e.g. "Walk on the left" said Mr Mathews.

Can I spell accurately?

1. Sound out the word
2. Think about how it looks
3. Think about a similar word
4. Is there a memory sentence for this word? (e.g. big elephants cannot always use small exits)
5. Find the word in a list –
 - Key words list
 - Frequently used words list
 - Your own word bank
6. Look it up in a dictionary/spellchecker
7. Ask a friend or teacher
8. To learn it: look, cover, write, check
9. Once you've solved it, add the correct spelling to your own word bank.

Can I use punctuation?

The Apostrophe

I always aim to use apostrophes correctly.

There are two main reasons why we use apostrophes: for **possession** and to replace a letter or letters

Note: Apostrophes are NEVER used to denote plurals

Full stop	.	Indicates that a sentence has finished
Comma	,	Indicates a slight pause in a sentence, separates clauses in a complex sentence and items in a list
Question mark	?	Goes at the end of a question
Exclamation mark	!	Goes at the end of a dramatic sentence to show surprise or shock
Apostrophe	'	Shows that letter(s) have been left out or indicates possession
Speech marks	""	Indicate direct speech, the exact words spoken or being quoted
Colon	:	Introduces a list, a statement or a quote in a sentence
Semicolon	;	Separates two sentences that are related and of equal importance
Dash / hyphen	-	Separates extra information from the main clause by holding words apart
Brackets	()	Can be used like dashes, they separate off extra information from the main clause
Ellipsis	...	To show a passage of time, to hook the reader in and create suspense

Literacy Fundamentals
2 of 2

Apostrophe for Possession

(To show that something belongs to another)

If a single thing/person owns anything, add an apostrophe + 's'.

- The dog's bone
- The boy's homework
- Jones's bakery
- Yesterday's lesson

However, if it is plural (more than one), an apostrophe comes after the 's'.

- The dogs' bones
- The boys' homework
- Joneses' bakeries (lots of Jones families)
- Many websites' content is educational

There/their/they're

Note: special care must be taken over the use of there, their and they're as they sound the same but are used quite differently:

- **There** shows position *Your seat is over there*
- **Their** shows that **'they' own something** *Their blazers are navy blue*
- **They're** is short for **they are** as in *They're revising every day*

Its

Note: its, which shows that something owns something (like our, his etc), **does not** take an apostrophe: the dog ate its bone and we ate our dinner.

Your/you're

Note: special care must be taken over the use of **your** and **you're** as they sound the same but are used quite differently:

- **Your** is possessive as in *this is your pen*
- **You're** is short for **you are** as in *you're coming over to my house*

Lord of the Flies

Plot Summary

Vocabulary

1	Schoolboys have crash landed on a deserted island. The reader meets Ralph and Piggy. Piggy has asthma. They find a conch and use it to summon any other survivors including twins SamnEric, Jack and Simon.	efflorescence, enmity, decorous, chorister, bastion, hiatus
2	The boys focus on short term pleasure and fun. Ralph suggests building a fire to be rescued. Jack just wants to hunt. A boy with a birth mark tells of 'the beast.' He goes missing after the fire and the boys are ashamed.	Ebullience, recrimination, tumult, tirade
3	Ralph wants to build shelters but only Simon helps whilst the others play and Jack hunts. The fire has been allowed to go out. Simon slips away to meditate.	oppressive, inscrutable, vicissitudes, declivities, tacit
4	Island life gets a rhythm. Mornings are pleasant because it is cool but evening is not because people worry about the beast. A boat goes past but there is no fire to attract it. Piggy is laughed at for sundials. Jack pants his face and hunts and kills a pig chanting "Kill the Pig. Cut her throat. Spill her blood." Ralph walks away.	blatant, taboo, malevolently, sinewy
5	Ralph calls a meeting to get people to follow the rules, but he and Jack are more apart than ever. There is talk of the beast, a little un suggesting it comes from the ocean at night. Jack just wants to hunt and won't listen to the rules of the conch. Ralph wishes for adults.	blatant, taboo, malevolently, sinewy
6	A dead parachutist floats on to the Island. No one sees because the fire is out. When they awake, SamnEric light the fire and see him but they think it is a beast. Jack finds a rock and some boulders.	leviathan, clamour, mutinously
7	Jack and Ralph continue to clash as they search for the beast. Ralph kills a boar and is flushed with excitement. Robert is almost killed in the reenactment. Later they head up the mountain and see the beast and are terrified.	crestfallen, impervious, enterprise
8	Jack declares himself chief of his own group. Simon meditates alone and leans what the beast is. Piggy tries to cheer Ralph up with talk of a new fire. The savages dance around as they kill a sow with Roger being very brutal.	glowered, rebuke, demure, fervour
9	A storm comes and they have no shelter. Simon emerges from the forest and is killed by the other boys who think he is the beast. Ralph acts like a king.	corpulent, sauntered
10	Jack's gang have moved to castle rock. Ralph, Piggy and SamnEric remain but cant keep the fire going alone. Jack steals Piggy's glasses whilst the others protect the conch.	compelled
11	The boys go to castle rock to confront Jack. Piggy is killed by a boulder pushed by Roger. Jack attempts to kill Ralph with a spear. He flees. Jack's group torture SamnEric to join them.	luminous, myopia, snivelling, quavered, talisman
12	SamnEric are tortured into revealing Ralph's hiding place. Jack vows to burn down the forest to find him. The smoke attracts a boat. The officer finds the boys and asks if they are playing at war. All of the boys cry whilst the officer looks back at his ship.	acid, cordoned, elephantine, epaulettes

Lord of the Flies

Characters
Ralph : the largest and most physically powerful. Wants to plan and follow rules, but even he is sometimes seduced by savagery. Symbolises: law, government and civil society.
Piggy : the smartest boy but has asthma and is fat so bullied. Has a tendency to lecture and is ridiculed. Symbolises: science and rationality.
Jack : Leader of the hunters. Loves to hunt and kill gets angry when he doesn't get his way. Believes a leader should be obeyed. Symbolises: dominance and power.
Simon : Dreamy, dark haired boy prone to fits. He recognises that the beast is within them. He is unafraid and meditates. Symbolises: Religion and spirituality.
Roger: Quiet and intense at first then becomes more evil. He tortures SamnEric, kills Piggy and likes to inflict pain . Symbolises: Sadism
Little 'uns: Not easy to distinguish. They are fearful, terrified of the beast and just want to play. Symbolises: every day people who are manipulated by leaders.

Themes
HUMAN NATURE : the book is an allegory for human nature and society.
CIVILIZATION and SAVAGERY : the boys descend into brutality as they become further removed from civilization.
LOSS OF INNOCENCE: usually a symbol of naivete and innocence, the boys become increasingly brutal.
THE WEAK & THE STRONG: The big 'uns prey on the little 'uns as the island becomes survival of the fittest.
SPIRITUALITY & RELIGION: Simon is a christ like figure who sacrifices himself so the boys can know the truth.

Context
Golding's experiences in WW2 showed him the evils of human nature.
During the cold war fears of nuclear annihilation gripped society.
British public schools emphasized civility and 'stiff upper lip'.
Totalitarian governments such as Nazi Germany and Stalinist Russia controlled people through fear

Terms	
Scar	Symbolism
Conch	Garden of eden
Allegory	Temptation
Irony	Authority
Foreshadowing	Civilized
Metaphor	Savage

Symbols
The conch
The lord of the flies
Piggy's glasses
The island
The 'beast'
Fire

Important quotations
Within the diamond haze of the beach something dark was fumbling along... Then the creature stepped from the mirage on to clear sand, and they saw that the darkness was not all shadow but mostly clothing.
You got your small fire all right." [...] the boys were falling still and silent, feeling the beginnings of awe at the power set free below them.
Roger gathered a handful of stones and began to throw them. Yet there was a space round Henry, perhaps six yards in diameter, into which he dare not throw. Here, invisible yet strong, was the taboo of the old life. Round the squatting child was the protection of parents and school and policemen and the law.
Fear can't hurt you any more than a dream. There aren't any beasts to be afraid of on this island... Serve you right if something did get you, you useless lot of crybabies!"
"There isn't anyone to help you. Only me. And I'm the Beast. . . . Fancy thinking the Beast was something you could hunt and kill! . . . You knew, didn't you? I'm part of you? Close, close, close! I'm the reason why it's no go? Why things are the way they are?"
"I just take the conch to say this. I can't see no more and I got to get my glasses back. Awful things has been done on this island. I voted for you for chief. He's the only one who ever got anything done. So now you speak, Ralph, and tell us what. Or else.
The rock struck Piggy a glancing blow from chin to knee; the conch exploded into a thousand white fragments and ceased to exist. Piggy, saying nothing, with no time for even a grunt, traveled through the air sideways from the rock, turning over as he went [...]. Piggy fell forty feet and landed on his back across the square red rock in the sea. His head opened and stuff came out and turned red. Piggy's arms and legs twitched a bit, like a pig's after it has been killed.
Ralph wept for the end of innocence, the darkness of man's heart, and the fall through the air of a true, wise friend called Piggy.

The Formal Elements

Line	Defines shape; the outer edge of something. It can vary in width, direction and length.
Tone	How dark or light a shape is.
Pattern	A repeated shape or line.
Texture	The feel or appearance of a surface; how rough or smooth it is.
Shape	Can be in the form of squares, circles, triangles, rectangles, and ovals.

Additional Key words

Organic	Free flowing or rounded, seemingly natural.
Geometric	Refers to the shapes such as triangles, squares, etc.
Symmetry	Meaning it is equal on both sides.
Flat tones	No tonal effect in the colour.
Distorted	A shape that is changed and no longer looks proportioned.

Key Terms specific to: 3D

Sculptor: An artist who works in 3D.

Carving: The sculptor removes unwanted material to create the form. Materials such as a block of wood, stone, soap and other hard materials are used.

Modelling: The sculptor creates a form by building it up. Clay, paper maché, and other soft materials are modelled into a sculpture. Modelling with clay is generally the first process for creating a cast metal sculpture.

Assembly or construction: The sculptor joins materials together. This is also additive sculpture. Materials such as steel, wood, and found materials are glued, welded, or connected in some way to create a sculpture.

Bas Relief: Low level carving, modelling or assembling that is designed to be viewed from one angle.

Techniques specific to: Textiles

Applique: A decoration made by cutting shaped of fabric and sewing them to another piece of fabric with a zig zag stitch.

Collage: Layering fabric and papers together to create an image, different textures or pattern.

Embellishment: a decorative detail or feature added to something to make it more attractive.

Stitch: A loop of thread that can connect fabric pieces together.

Fabric: Cloth produced by weaving or knitting textile fibres.

Surface decoration: Applying decorative stitches and other embellishments to the surface of fabric.

Fabric manipulation: Altering and changing the appearance of fabric by using different methods such as pulling the fibres, twisting and stitching.

Colour Theory

Colour: When light is reflected off an object, colour is what the eye sees. There are primary colours and secondary colours.

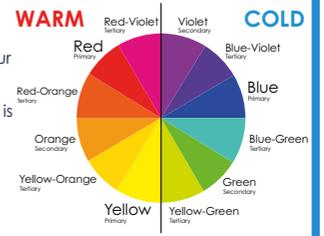
Warm colours: Colours that give the feeling of warmth – red, orange, yellow.

Cool colours: Colours that give a cool feeling – blue, green purple.

Complementary colours: Opposite colours on the colour wheel.

Shade: When black is mixed with a colour to make it darker.

Tint: When white is mixed with a colour to make it lighter.



Composition

Composition: The arrangement/layout of shapes/objects on the page.

Proportion: The size and shape of one object in comparison to another.

Foreground, mid-ground, background: The areas at the front middle or back of a drawing or painting.

Focal Point: The part of the artwork which stands out and draws the eye.

Perspective: The way of showing that objects appear to get smaller and closer together the further away they are from the viewer.

Symbol: A picture of an image that tells a story of what it is without using word.

Depth: The illusion of space.

Key Terms specific to: Art

Mark making	The different line, patterns and textures we create in a piece of art.
Medium	The media used to create the artwork.
Observational	Closely studying objects.
Collage	An image that is created by using layers of other images and/or materials.
Mixed Media	Using a variety of different media to create an artwork.
Sculpture	A 3D piece of artwork.
Realism	Painted realistically.
Abstract	Art which does not represent images of our everyday world.

Three Words to Critique Movement

Movement is seen in every piece of art. Movement helps to create or define a piece of art.

1. Swirling
2. Flowing
3. Dramatic

Four Words to Critique Tone

When it comes to tone in art there are four words that can help you when critiquing. None of the words are fancy; however they may not all be used in your everyday conversations with friends.

1. Subtle
2. Contrasting
3. Muted
4. Dramatic

Five Words to Critique Shape

Art comes in various shapes whether it is a painting or a sculpture. Therefore, there are specific words to describe each piece of art.

1. Organic
2. Curvaceous
3. Geometric
4. Angular
5. Elongated

Five Words to Critique Scale

Scale is basically the size of the art. The words used to critique scale are common words that are already in our vocabulary.

1. Large
2. Small
3. Intimate
4. Miniature
5. Monumental

Techniques specific to: Photography

Aperture	The size of the hole which controls how much light is allowed into the camera when taking a photograph. The higher the aperture the smaller the hole (less light).
Focus	Areas of an image may be in focus (clear and sharp) and some areas may be out of focus (blurry and difficult to see).
Focal Point	The part of the photograph that the eye is immediately drawn to.
Rule of thirds	A technique used to create a successful composition. The rule states that the focal point should not be dead centre.
Leading lines	The viewer's eyes are naturally drawn along vertical and parallel lines.

Six Words to Critique Colour

In art colour is very important. This is what helps each piece of art stand out. The colour, no matter what type of artwork helps define the piece and the artist. A lot of artwork can be determined on who did the work just by looking at the colours, because certain artists use specific colours in every piece of their work.

1. Bold
2. Vibrant
3. Subtle
4. Pale
5. Earthy
6. Naturalistic

Three Words to Critique Contrast

Two out of the three words for contrast have already been used to critique other elements of art. Therefore, it should not be hard to remember these words on a list of descriptive words to critique art. The only other word you need to remember here is the word strong and that is a pretty common word.

1. Dramatic
2. Subtle
3. Strong

Five Words to Critique Texture

Texture is a very common element with and often used when referring to clothing, furniture and hair. Also, if you have ever painted a wall in your home you are most likely familiar with the following words.

1. Rough
2. Fine
3. Smooth
4. Coarse
5. Uneven

War Project-Devised



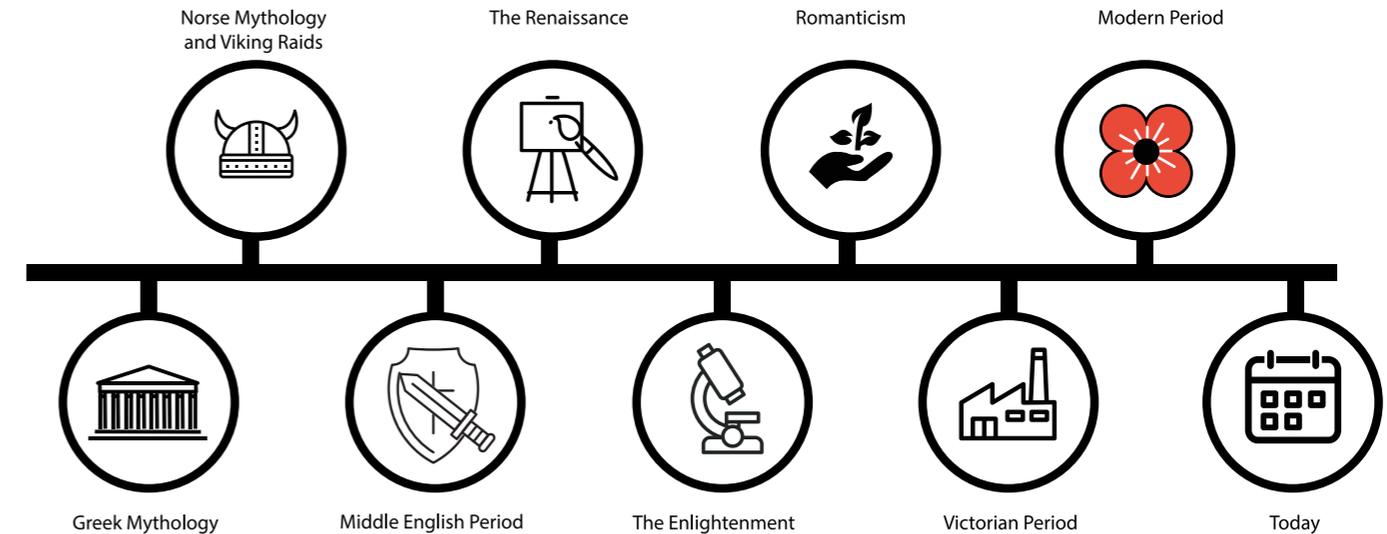
Pantomime Project-Devised



Stimulus	A starting point for your devised piece that should inspire the performance.
Structure	The shape of a play's narrative including the order in which it's shown.
Style	The way in which a director chooses to interpret a performance text on stage.
Symbolism	The use of props, gestures, setting, lighting etc to represent other things and create meaning.
Form	The type of written drama.
Chorus	A group of third-person narrators who provide extra information about the plot and comment on the action or characters. Originally a feature of Ancient Greek theatre.
Comedy	A genre of drama which features humour and a happy ending.
Commedia dell'arte	A type of comedy popular in 16th to 18th century Italy that makes use of stock characters.
Cue	A signal that tells the actors or technicians when a certain action needs to take place.
Dialogue	The general term for any lines spoken between characters.
Duologue	A scene or section of dialogue which only involves two actors.
Flashback/flash-forward	A scene which shows events from before or after the main action of the play. It can give extra information about the plot or help to develop characters.

Genre	The type of story a play is telling (e.g. comedy, tragedy).	Protagonist	The main character in a story.
Gesture	A movement made by part of the body (e.g. arms, head) to convey a character's emotions.	Proxemics	The use of physical space between the actors on stage to create meaning.
Improvisation	When drama is made up on the spot by performers without using any prepared material.	Slapstick	A type of comedy that features exaggerated movements and physical humour.
Mannerism	A repeated physical or vocal habit that contributes to characterisation.	Stage directions	Any instructions written in a script by the playwright to explain how a play should be performed.
Minimalist theatre	A genre of theatre which uses a basic set and very few props or simple costumes.	Stimulus	A starting point for your devised piece that you should use to inspire your performance.
Minor character	A character who isn't important to the plot but who adds depth to the world of the play.	Stock character	A character who is based on a stock personality.
Musical theatre	A style of theatre that uses song and dance to develop the plot and entertain the audience.	Structure	The shape of a play's narrative, including the order in which it's shown to the audience.
Narrator	A character who comments on the action and the plot to the audience. The narrator can be first-person (involved in the action) or third-person (set apart from the action).	Style	The way in which a director chooses to interpret a performance text on stage.
Physical theatre	A non-naturalistic style of theatre which uses physical movements to tell stories.	Supporting character	A character who is important to the plot but isn't the audience's main focus.
Plot	The series of events that take place in a play.	Tableau	A moment in a performance when the action stops and the characters freeze in position.
Posture	The position a character holds themselves in when sitting or standing.	Thought tracking	When a character tells the audience their thoughts during a pause in the action.
Promenade Theatre	A style of theatre that requires the audience to follow the actors between different performance spaces over the course of the play. This usually takes place outdoors.	Tragedy	A genre of play which features a serious plot and an unhappy ending.
Proscenium Arch stage	A box-shaped stage which is set back from the audience so that only the front-end is open to them, framed by the proscenium arch itself.	Tragic hero	The protagonist of a tragedy, whose flaws lead to their downfall (or death).
		Wings	The space to the side of a stage which is used for storage and as a waiting area for the actors.

The Literary Timeline



Sherlock Holmes

Context

Author: Arthur Conan Doyle (1859-1930)

Nationality: Scottish

Other notable works: 'The Hound of the Baskervilles', 'The Sign of Four', 'A Study in Scarlet', 'The Lost World'

Dates: 'Scandal in Bohemia' published in 1891

Era: Victorian

Genre(s): Crime/Detective/Mystery Fiction

Set: London, England

Form: Short stories

Author biography

• Arthur Ignatius Conan Doyle was born on May 22, 1859, in Edinburgh, Scotland to a prosperous Irish-Catholic family.

• Attended a Jesuit boarding school in England from the age of nine.

• At school, he rebelled against the harsh regimes and corporal punishment typical of the English education system in that era.

• Discovered his talent for storytelling at school, he would make up exciting stories to entertain the younger students, which offered an escape from the brutality of school life.

• Despite his obvious creative flair, Doyle chose to study medicine at Edinburgh University.

• At university, he met one of the most influential figures in his life, Dr. Joseph Bell.

• Bell was a master at observation, logic, deduction, and diagnosis; qualities which were later to be found in the character of Sherlock Holmes.

• After medical school, he spent time travelling the world as a ship's surgeon on a whaling boat.

• In 1879, his first stories were published. In 1887, his first Sherlock Holmes story, 'A Study in Scarlet', was published in Mrs. Beeton's Christmas Annual.

• Sherlock Holmes stories were a huge success, making Doyle a household name.

• In 1893, Doyle killed off Holmes but a public outcry later made him bring him back to life.

• Knighted following the publication of a pamphlet he had written justifying Britain's involvement in the Boer War, a war that had killed his son, brother and two nephews.

• In his later life he became very interested in spiritualism.

• Died on 7th July 1930.

Social, Historical & Literary context

Literary Context: Detective Fiction

• Edgar Allan Poe's 'The Murders in the Rue Morgue' (1841) is considered the earliest origins of detective fiction in the English speaking world.

• Others have argued that the first true detective novel was Wilkie Collins 'The Moonstone' (1868).

• Conan Doyle cemented the popularity of the genre with Sherlock Holmes. Holmes appeared in 56 short stories and 4 novels.

Common features of detective fiction:

- A celebrated, skilled and professional detective.
- Ineffective and bungling local police.
- An 'inside' job
- Red herrings
- The 'least likely suspect'.
- A large number of false suspects
- The 'least likely suspect'.
- A 'locked room' murder
- A reconstruction of the crime
- A final twist in the plot.

Key Characters - Scandal in Bohemia

Sherlock Holmes: a consulting detective who resides at 221b Baker Street. Assisted in his cases by his friend Dr. Watson.

Dr. Watson: the narrator of the story, Sherlock Holmes' friend who assists him with his cases. Recently married to a woman named Mary.

Irene Adler: a central character who is respected for her intellect and integrity.

Count Kramm / King of Bohemia: a man of royal blood who hires Sherlock Holmes.

Mr. Godfrey Norton: a gentleman and a lawyer.

Key Terminology

Detective Fiction: A sub-genre of crime fiction and mystery fiction in which an investigator or a detective (professional, amateur or retired) investigates a crime, often murder.

Literary Conventions: Defining features of particular genres such as novel, short story, ballad, sonnet, and play.

Third Person Limited Narrative: A type of narrative in which the narrator's thoughts, feelings, and knowledge of situations usually follow one character's perspective, usually the main character's but can switch between different characters in the text.

Protagonist: The central character or leading figure in a poem, narrative, novel or any other story. Sometimes can also be referred to as a "hero" by the audience or readers.

Antagonist: A person who actively opposes or is hostile to someone or something; an adversary.

Setting: The time and place in which the story takes place in a piece of literature. Setting can establish the mood or atmosphere of a scene or story.

Symbolism: The use of symbols to express ideas or qualities.

Tone: The choice of writing style the writer employs to convey specific feelings, emotions or attitudes.

Exposition: Refers to part of the story used to introduce background information about events, settings, characters etc. to the reader.

Rising Action: A related series of incidents in a literary plot that build toward the point of greatest excitement/interest.

Climax: The point of highest tension in a narrative.

Falling Action: Occurs immediately after the climax, when the main problem of the story has been resolved.

Key Vocabulary

Deduce: Arrive at a fact or a conclusion by reasoning; draw as a logical conclusion.

Deduction: The process of reaching a decision or answer by thinking about the known facts.

Reasoning: The action of thinking about something in a sensible and logical way.

Red Herring: A clue or piece of information which is or is intended to be misleading or distracting.

Suspect: A person thought to be guilty of a crime or offence.

Whodunit: A story or play about a murder in which the identity of the murderer is not revealed until the end.

Idiosyncratic: A word to describe behaviour which is considered to be distinctive or peculiar.

Incorrigible: Not able to be changed or reformed.

Temperament: A person's or animal's nature/traits of personality, which have a permanent impact on their behaviour.

Faculties: A natural physical or mental power/an aptitude for doing something.

Introspective: To look inward to examine or observe one's own mental and emotional processes.

Obstinacy: The quality or condition of being stubborn.

Indiscretion: Behaviour that is indiscreet or lacks good judgement.

Carte Blanche: Complete freedom to act as one wishes.

Inexorable: Impossible to escape from, or separate from.

Disreputable: Not considered to be respectable in character or appearance.

Preposterous: Utterly absurd or ridiculous; contrary to reason or sensible judgement.

Perpetrator: A person who carries out an illegal, harmful or immoral act.

Morose: Sullen and ill-tempered.

Vagabonds: People who wander from place to place without a home or job.

Convulse: To suffer violent involuntary contraction of the muscles, producing jerky movements of the body or limbs.

Notorious: Famous or well known, typically for some bad quality or deed.

Insolence: Rude and disrespectful.

Imprudence: Lacking discretion, wisdom, or good judgment.

Scrupulous: Careful, thorough, and extremely attentive to details.

Poetry – Relationships

Context

Writer/Poet: W.H. Auden (1907-1973)

Nationality: Anglo American

Poem: 'Funeral Blues'

Era: 20th Century

Other notable poems/collections:

Biography:

Wystan Hugh Auden was born in York on 21 February 1907.

Graduated from Oxford University in 1928 and then became a teacher.

In 1935, Auden married Erika Mann, the daughter of the German novelist Thomas Mann.

It was a marriage of convenience for her to gain British citizenship and escape Nazi Germany. Auden was gay and homosexuality was illegal at the time.

In 1939, Auden and his friend, novelist Christopher Isherwood, emigrated to the United States. This was controversial as some saw this as them fleeing from danger before the outbreak of war.

In New York, Auden met poet Chester Kallman who he was in a relationship with until his death.

Auden taught at a number of American universities and, in 1946, took US citizenship.

He continued to publish poetry and was awarded the Pulitzer Prize.

In 1972, with his health declining, Auden left America to return to Oxford.

He died in his second home in Austria on 29 September 1973.

Poet: Sylvia Plath (1932-1963)

Nationality: American

Poem: 'Mushrooms'

Other notable poems/collections:

Era: 20th Century

Biography:

Born in Boston, USA in 1932.

Published her first poem at the age of eight - the year her father died.

In 1950, received a scholarship to Smith College, Massachusetts and then went to study at Cambridge University.

Suffered from mental health issues and spent time in a psychiatric hospital, which formed the basis of her semi-autobiographical novel 'The Bell Jar'.

Met fellow poet Ted Hughes at a party in Cambridge; they were married within three months.

The couple went to teach in America, before deciding to commit to writing full-time.

In 1960, gave birth to her first child, Frieda, and published her first book of poetry, 'The Colossus'.

The poems she is best remembered for were written in the last few months of her life.

She took her own life in her London flat, aged 30.

Her last collection, 'Ariel', was published to critical acclaim after her death.

Key Vocabulary

Alliteration The repetition of the same consonant sound, often at the beginning of words.

Allusion An expression designed to call something to mind without mentioning it explicitly.

Assonance The repetition of a vowel sound for emphasis.

Blank Verse Poetry without rhyme but where the lines are always of the same number of syllables; it is usually written in iambic pentameter.

Contrast Placing words, lines, verses etc. together to emphasise their differences.

Couplet Two successive lines of verse of which the final words rhyme with another.

Dialect A particular form of a language which is used by people in a specific region or social group.

Dialogue A conversation between two or more people.

Diction A poet's choice of words such as verbs, adjectives to create a particular effect.

Enjambment The overlapping of a sentence onto the following line, usually to emphasise a word or phrase at the start of a line or verse.

Extended Metaphor A metaphor that is developed throughout a poem.

Form The way a poem is set out, or a term used to categorise poems which follow particular conventions.

Free Verse Poetry that does not have a regular pattern of rhyme.

Half-Rhyme Partial rhyme, which occurs when similar but not identical sounds are repeated.

Iambic Pentameter A line of verse with five metrical feet, each consisting of one short (or unstressed) syllable followed by one long (or stressed) syllable, with the accent (or emphasis) placed on the second syllable.

Image A picture created with words, usually used to describe an imaginative comparison often using a simile or metaphor.

Irony The use of words to imply the opposite of, or something different from what is being said.

Juxtaposition When two or more ideas, images, words etc. are placed side by side to develop comparisons and contrasts.

Metaphor A comparison in which one thing is said to be another.

Onomatopoeia The use of a word that sounds like its meaning.

Pace The speed at which a poem flows.

Persona The 'speaker' in a poem who is a created character, not the poet.

Personification The attribution of human feelings, emotions, or sensations to an inanimate object.

Refrain A recurring phrase or set of lines.

Rhyme Scheme The pattern of a poem's rhyme, often identified using letters e.g. ABABCC

Rhythm The 'movement' of the poem as created through the meter and the way that language is stressed within the poem.

Setting The description of the place in which a poem is set.

Simile A comparison that uses 'like' or 'as'.

Standard English The form of the English language which is widely recognised as acceptable wherever English is spoken and understood.

Stanza A group of lines forming a unit in a poem.

Structure The way a poem is organised.

Symbolism The use of symbols to express ideas or qualities.

Syntax The way in which sentences are structured.

Tone Feelings or ideas suggested by the language used by the poet.

Verse Another word for poetry; a group of lines forming a unit in a poem, also known as a stanza.

Volta A 'turning point' in a poem.

FORM

A nineteen line poem consisting of five units of three lines, rhymed or unrhymed, followed by a quatrain.

Sonnet A poem that has 14 lines and a particular pattern of rhyme (ABAB CDCD EFEF GG)

Elegy A poem of serious reflection, typically a lament for the dead

Ballad A narrative poem which is typically written in short stanzas.

Dramatic Monologue A poem in which an imagined speaker addresses a silent listener, usually not the reader.

Romeo & Juliet

Plot

Act 1 – In Italy two noble families, the Montagues and Capulets, have much bad blood between them. Romeo, son of old Montague, is in love with Rosaline, who disdains his love. As a result, Romeo is depressed. To cure him of his love, his friend Benvolio induces him to attend a masked ball at the Capulets, where he could encounter other beauties and forget Rosaline. At the ball, Romeo is attracted by a girl who he learns is Juliet, daughter of the Capulets. They seal their love with a kiss.

Act 2 – Romeo lingers in Capulet's garden, standing in the arched beneath Juliet's balcony. He sees Juliet leaning over the railing, hears her calling out his name, and wishes that he were not a Montague. He reveals his presence, and they resolve, after an ardent love scene, to be married secretly.

Act 3 – Tybalt encounters Romeo returning from Friar Lawrence's cell. Romeo, softened by his newfound love and his marriage to Juliet, refuses to be drawn into a quarrel with Tybalt, now his kinsman by marriage. Mercutio grapples with Tybalt and is killed. Aroused to fury by the death of his friend, Romeo fights with Tybalt and kills him and takes shelter in the Friar's cell.

Act 4 – In despair, Juliet seeks Friar Lawrence's advice. He gives her a sleeping potion, which for a time will cause her to appear dead. Thus, on the day of her supposed marriage to Paris, she will be carried to the family vault. By the time she awakens, Romeo will be summoned to the vault and take her away to Mantua.

Act 5 – The Friar's letter fails to reach Romeo. When he hears of Juliet's death Romeo procures a deadly poison from an apothecary and secretly returns to Verona to say his last farewell to his deceased wife and die by her side. At Juliet's side, Romeo drinks the poison and dies. When Juliet awakens from her deep sleep, she realises Romeo's error and kills herself with his dagger. The Capulets and the Montagues decide to reconcile as a result of the deaths of their children.

Symbols

Light/dark and day/night

Romeo and Juliet is filled with imagery of light and dark. But while light is traditionally connected with "good" and dark with "evil", in Romeo and Juliet the relationship is more complex. Romeo and Juliet constantly see each other as forms of light. In the balcony scene, Romeo describes Juliet as the sun, while Juliet describes Romeo as stars. But the relationship between light and dark is complicated by the lovers' need for the privacy of darkness in order to be together.

Characters

Romeo Montague	Intense, intelligent, quick witted, and loved by his friends.
Juliet Capulet	Naive and sheltered at the beginning, develops into a woman with strength. Grounded.
Mercutio	Romeo's close friend. Wild, playful and sarcastic.
Tybalt	Juliet's cousin. A hotthead consumed by issues of family honour. Hates the Montagues.
Benvolio	Romeo's cousin. Less quick witted than Romeo and Mercutio, tries to keep the peace.
Friar Lawrence	A Franciscan monk and a friend to both Romeo and Juliet.
Nurse	Juliet's best friend and confidante, and in many ways is more her mother than Lady Capulet is.
Prince Escalus	Leader of Verona, concerned with keeping order between the warring families.

Themes and context

Love – The love Romeo and Juliet share is beautiful and passionate. It is pure, exhilarating, and transformative, and they are willing to give everything to it. But it is also chaotic and destructive, bringing death to friends, family, and to themselves.

Fate – No matter what the lovers do, what plans they make, or how much they love each other, their struggles against fate only help fulfil it. But defeating or escaping fate is not the point. No one escapes fate. It is Romeo and Juliet's determination to struggle against fate in order to be together, whether in life or death. That shows the fiery passion of their love, and which makes that love eternal.

Individuals v society – Because of their forbidden love, Romeo and Juliet are forced into conflict with the social world around them: family, friends, political authority, and even religion.

Language and word play – Romeo and Juliet constantly play with language. They pun, rhyme, and speak in double entendres. All these word games may seem like mere fun, and they are fun. The characters that pun and play with language have fun doing it. But word play in Romeo and Juliet has a deeper purpose: rebellion.

Key Quotes

Prologue – "Two households, both alike in dignity, in fair Verona, where we lay our scene, From ancient grudge break to new munity, where civil blood makes civil hands unclean. From forth the fatal loins of these two foes, a pair of star-crossed lovers take their life".

Romeo and Mercutio – A1 "Romeo: I dream'd a dream to-night.
Mercutio: And so did I.
Romeo: Well, what was yours?
Mercutio: That dreamers often lie."

Juliet – A1 "My only love sprung from my only hate! Too early seen unknown. And known too late!"

Romeo – A2 "But, soft! What light through yonder window breaks? It is the east, and Juliet is the sun!"

Juliet – A2 "O Romeo, Romeo! Wherefore art thou Romeo? Deny thy father and refuse thy name; or, if thou wilt not, be but sworn my love, and I'll no longer be a Capulet."

Tybalt – A3 Romeo, the hate I bear thee can afford no better term than this: thou art a villain."

Romeo and Mercutio – A3 "Romeo: Courage, man; the hurt cannot be much.
Mercutio: No, 'tis not so deep as a well, nor so wide as a church-door; but 'tis enough, 'twill serve: ask for me to-morrow, and you shall find me a grave man."

Juliet – A4 "Or bid me to go into a new-made grave, And hide me with a dead man in his shroud."

Juliet – A5 "Yea, noise, then I'll be brief; O, happy dagger! This is thy sheath; there, and let me die."

Romeo – A5 "O true apothecary! Thy drugs are quick. – Thus with a kiss I die. "

English
4 of 4

French
1 of 2

Adverbs

Lentement	Slowly
Joyusement	Happily
Etonnamment	Surprisingly
Précipitamment	Hurriedly
Brutalement	Brutally
Sans problème	Smoothly
Prudemment	Carefully
Avec impatience	Eagerly
Tranquillement	Leisurely
Extrêmement	Extremely

Wonderful 'wow' words

Intelligent	Intelligent
Joyeux	Cheerful
Radieux	Radiant
Grincheux/euse	Grumpy
Effrayé	Frightened
Animé	Bustling
Utile	Useful
Passioné	Passionate
Ponctuel	Punctual

Time connectives

Premièrement	Firstly	Deuxièmement	Secondly
Après	Next	Brèvement	Briefly
Après	After	La semaine dernière	Last Week
Puis / Ensuite	Then	Bientôt	Soon
Soudainement	Suddenly	Il y a 2 ans	Two years ago
Pendant ce temps	meanwhile	Il y a 2 jours	Two days ago
Quand	When	Finalement	Eventually
Depuis	Since	Au Final	Finally
Avant	Before		

Time connectives

Addition

Et	And
Aussi	Also
De plus	In addition to
En outre	Furthermore
Encore	Again
Suivant(e)	The following

Cause/effect

Alors	Consequently
Ainsi	Thus
Donc	So
Par Conséquent	Therefore / As a result
Jusqu'à	Until

Emphasis

Surtout	Above all
En particulier	In particular
Particulièrement	Notably / Especially
Considérablement	Significantly
En fait / En réalité	In fact

Contrast/Balance

Mais	But
Cependant	However
Néanmoins	Nonetheless
Ou bien/ Ou sinon	Alternatively
Malgré	Despite
Toujours	Still
Au lieu de	Instead of..

D'un côté...d'un autre côté
On one hand...On the other

Module 4

Je vais en vacances	I go on holiday
au bord de la mer	to the seaside
à la campagne	countryside
à la montagne	mountains
J'y vais...	I go there...
avec ma famille	with my family
J'y reste...	I stay there ...
une semaine/	one week
Je pars en colo	I go to a holiday camp
Je pars en classe de neige	I go on a winter camp
On fait du camping	We go camping

<u>Les activités vacances</u>	<u>Holiday activities</u>
Je fais...	I do/go...
du canoë-kayak	canoeing
du VTT	mountain-biking
du ski nautique	water-skiing
du snowboard	snowboarding
de la plongée sous-marine	scuba diving
de la voile	sailing
de la planche à voile	wind-surfing
de l'équitation	horse-riding
de l'escalade	climbing
des randonnées dans la forêt	hiking in the forest
Je vais à la pêche	I go fishing
Je prends des cours de ski	I have skiing lessons
J'ai fait un stage de (voile)	I did a (sailing) course
Il n'y a pas grand-chose à faire	There's not much to do

<u>Les affaires de vacances</u>	<u>Holiday items</u>
un adaptateur	an adaptor
un chargeur (pour mon mp3)	a charger (for my mp3)
un chapeau de paille	a straw hat
un tuba	a snorkel
un sac à dos	a rucksack
une lampe de poche	a torch
de la crème solaire	sun cream
des lunettes de plongée (fp)	swimming goggles
des palmes (fp)	flippers

Module 5

<u>Mes droits</u>	<u>My rights</u>
j'ai le droit de/d'	I am allowed to....
aller au MacDo avec mes copains	go to McDonald's with my friends
aller sur des forums	go onto forums
aller sur Facebook	go on Facebook
jouer à des jeux vidéo	play video games
regarder la télé jusqu'à 11 heures	watch TV until 11pm
sortir seul(e)	go out by myself
surfer sur internet une heure par jour	surf the net for one hour per day
<u>Les conditions</u>	<u>Conditions</u>
si j'ai aidé à la maison	if I have helped around the house
si j'ai fini mes devoirs	if I have finished my homework
si j'ai mon portable sur moi	if I have my phone on me
si je renter avant dix heures du soir	if I get back by 10pm
si je veux	if I want
si mes parents savent avec qui je suis	if my parents know who I am with
si mes parents savent où je vais	if my parents know where I am
<u>Les reactions</u>	<u>Reactions</u>
Mais ce n'est pas juste!	But it's not fair!
C'est tout à fait normal	That's quite right
Ce n'est pas du tout normal	That's not right at all
C'est fou!	That's crazy!
On te traite comme un enfant	They are treating you like a child
Mais révolte - toi!	Rebelle!
Tes parents exagèrent!	Your parents are going too far
<u>Les expressions avec avoir</u>	<u>Expressions with avoir</u>
avoir envie de	to want to
avoir faim	to be hungry
avoir le droit de	to be allowed to
avoir raison	to be right
avoir soif	to be thirsty
avoir tort	to be wrong
en avoir marre de	to be fed up of
<u>Des verbes utiles</u>	<u>Useful verbs</u>
acheter	to buy
adopter	to adopt

Module 6 Révision

<u>Les mots essentiels</u>	<u>High frequency words</u>
car	for
comme	as
lorsque	when
par contre	on the other hand
par exemple	for example
puisque	since/as
si	if
surtout	especially
avec qui?	with whom?
combien de?	how much/how many?
que? / qu'est-ce que?	what?
pourquoi?	why?
y	there
quel(le)(s)	which?/what
toujours	always
prochain(e)(s)	next
à mon avis	in my opinion
au lieu de	instead of
avant tout	above all
comment	how
complètement	completely
être d'accord	to agree
franchement	frankly
malheureusement	unfortunately
malgré	in spite of
même	even
plein de	loads of
pour (+ infin)	in order to
pourtant	however

French
2 of 2

Newly Emerging Economies

NEE: Newly Emerging Economy (those moving from LIC to HIC).

HIC: Higher Income Country (e.g. Australia/Canada).

LIC: Lower Income Country (e.g. Somalia/Sierra Leone).

Development: The progress made over time by a country.

Poverty: People living without basic needs or income.

Corruption: Dishonest or wrong doings by those in power.

Quality of life: The social, economic and environmental factors of life (E.g. health, employment, income, building quality etc).

Sanitation: The provision of, and access to, flushing toilets, clean water etc.

India as an NEE

Bollywood: The Indian film industry (the biggest film industry in the world)

Dharavi: The largest slum in Asia, located in Mumbai.

Caste system: The traditional class structure, determined by birth.

Social segregation: The gap between the rich and the poor (seen in many urban areas).

Economic development: The progress that India are countries.

Industrialisation: The focus of the economy on industry and manufacturing.

Globalisation: The increased interconnectivity of the world, linked to TNCs.

TNCs: Trans-national corporations. Large companies who work on a global scale. E.g. Nike or BT.

Supporting countries to develop

Aid: Help.

Emergency aid: Help given for short term, often after natural disasters or outbreaks of diseases.

Development aid (long-term aid): Help given for a longer time, often focusing on areas of need e.g. health, education.

International aid: Aid sent from abroad. E.g. UK sending international aid to Nigeria.

Bilateral aid: Help given from one country to another. E.g. UK sending aid to India.

Multilateral aid: Help given when organisations work together. E.g. The Disaster Emergency Committee who collected donations from countries to support after Nepal's earthquake.

Self help schemes: Schemes that provide training and materials to encourage people to improve their own standards of living.

Appropriate technology: Providing communities with resources that are appropriate for their level of development. E.g. A water pump to an LIC.

Remittances: The money sent home – often from migrants.

Debt relief: The partial or total wiping off of any debts paid (has been given to many Highly Indebted Poor Countries – HIPC – globally e.g. Ghana, Ethiopia and Haiti)

Trade: Transfers of goods and services from one country to another.

Trading agreements: A deal made between countries.

Trading blocs: A group of countries or organisations who work together to create deals for trade.

Investment: Money that is put into a country to support with business etc.

Geography
1 of 2

Consequences of the development gap

Inequality: Gap between rich and poor.

Slums: Informal housing, often made from scrap material on undesirable land (also known as shanty towns).

Migration: The movement of people from one area to another (often linked with rural to urban migration in NEEs).

Urbanisation: The growth in the proportion of people who live in urban areas (linked to migration).

Disparities in health: Gaps in health as poorer people are unable to access vaccines or medicines.

India's Industrial structure

Primary: Work relating to raw materials.

Secondary: Manufacturing and industrial jobs.

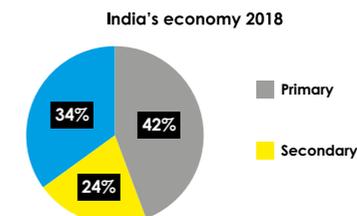
Tertiary: Jobs that provide a service.

Quaternary: Research and development.

Industrial structure: The break down of the economy into each sector (primary, secondary, tertiary, quaternary).

Exports: The goods that are traded out of a country.

Imports: The goods that are traded into a country.



Resource Management

The UK's resources

- Consumption:** How much is used (E.g. water, energy and food consumption).
- Water deficit:** When demand for water is greater than supply. There is deficit in the South and East of the UK.
- Water surplus:** When supply of water is greater than demand. There is surplus in the North and West of the UK.
- Water security:** Availability of a reliable water supply.
- Water stress:** When there is a greater demand than supply of clean water - when water is restricted. This is sometimes experienced in the South and East of the UK.
- Water transfer schemes:** The movement of water from areas of surplus to areas of deficit (E.g. Eian Valley in Wales to Birmingham).
- Carbon footprint:** The amount of carbon dioxide released per person (can link to food miles).
- Seasonal food production:** A focus on seasonal crops rather than imported crops
- Arable farming:** Crops. Popular areas in the UK are Lincolnshire and East Anglia.
- Pastoral farming:** Animals.
- Agribusiness:** Intensive farming used to maximise profits.
- Organic farming:** Farming without chemicals.
- Energy demand:** The amount of energy needed to provide for a population.
- Energy security:** Having enough energy to provide for a population.
- Fossil fuels:** Coal, gas and oil. These are non-renewable.
- Renewable energy:** Energy that doesn't run out (e.g. solar, wind, biomass, tidal, hydro).
- Fracking:** The process used to source shale gas from rocks under the ground.

Managing food insecurity

- The Green Revolution:** Water harvesting, soil conservation, using science to improve the quality of crops and livestock, mechanisation.
- Appropriate technology:** Using cheap materials to support LICs (E.g. Bicycle used to dehusk coffee beans, or drip irrigation used in LICs).
- Biotechnology:** Using living organisms to increase crop output/yields. E.g. GM.
- Aeroponics:** Spraying plants with fine water containing nutrients constantly and reusing water.
- Hydroponics:** Constant supply of water and light. No soil needed - mineral wool used instead.
- The Indus Basin Irrigation System:** The largest irrigation system (watering) in the world - it consists of 3 large dams, and over a hundred smaller dams that regulate water flow.

Impacts of food insecurity

- Famine:** Widespread shortage of food - often leading to starvation and death.
- Rising prices:** Demand on food increases which rises prices of food, which leads to people being unable to afford it.
- Soil erosion:** Overuse of the soil by farmers growing crops & grazing animals means the soil loses fertility and is unusable.
- Undernutrition:** Lack of a balanced diet leading to illnesses (negative multiplier)
- Social unrest:** Rioting or arguments over resources as there is not enough of them.

Sustainable food supply

- Sustainable food supply:** Producing food in a way that fertile soils, water and environmental resources are available for future generations.
- Fish from sustainable sources:** Set catch limits (quotas), monitor breeding.
- Meat from sustainable sources:** Free range, small scale, organic.
- Permaculture:** Permanent farming. Encouraging bees, harvesting rainwater, crop rotation.
- Urban farming:** Using land/space in settlements to grow food (good for community).
- Magic stones:** Lines of stones are placed in fields (arid/ LICs) to stop surface runoff - low tech management technique.
- Sand dams:** Small scale dams built to collect sediments eroded during rainfall, these sediments contain water for later use - low tech management technique.

Global food resources

- Food security:** Access to sufficient, safe, nutritious food to maintain a healthy life.
- Food Insecurity:** Being without a reliable access to enough affordable nutritious food.
- Food surplus:** When countries produce more food than the population needs.
- Food deficit:** When countries do not produce enough for their population.
- Food Miles:** The distance travelled by food.
- Irrigation:** How we water crops. This can be large scale with dams and reservoirs, or small scale with drip irrigation.

Adverbs

Langsam	Slowly
Glücklich	Happily
Überraschen	Surprisingly
Eilig	Hurriedly
Brutal	Brutally
Problemlos	Smoothly
Vorsichtig	Carefully
Eifrig	Eagerly
Gemächlich	Leisurely
Irrsinnig	Insanely

Wonderful 'wow' words

Intelligent	Intelligent
Fröhlich	Cheerful
Strahlend	Radiant
Schimmernd	Shimmering
Mürrisch	Grumpy
Erschrocken	Frightened
Trubelig	Bustling
Nützlich	Useful
Leidenschaftlich	Passionate
Pünktlich	Punctual

Time connectives

Erstens	Firstly	Kurzzeitig	Briefly
Danach	Next	Letzte Woche	Last Week
Nachdem	After	Nach Einiger Zeit	After A While
Dann	Then	Bevor	Before
Bald	Soon	Vor 2 Jahren	Two Years
Plötzlich	Suddenly	Ago	
Inzwischen	Meanwhile	Vor 2 Tagen	Two Days Ago
Wann	When	Letztendlich	Eventually
Seit	Since	Schließlich	Finally
Zweitens	Secondly		

Time connectives

Addition

Und	and
Auch	also
Außerdem	furthermore
Zusätzlich	in addition to
Wieder	again
Nachfolgend	the following

Cause/effect

Infolgedessen	consequently
Dadurch	thus
So	so
Deshalb	therefore
Demzufolge	as a result
Bis	until

Emphasis

Vor Allen Dingen	above all
Besonders	in particular
Insbesondere	notably
Hauptsächlich	especially
Bedeutend	significantly
Sogar	in fact

Contrast/Balance

Aber	but
Jedoch	however
Nichtsdestotrotz	nothingless
Beziehungsweise	alternatively
Trotz	despite
Trotzdem	still
Stattdessen	instead of...
Zum eine	on one hand...on the other

Module 4

Meine Kindheit	My childhood
Als ich fünf Jahre alt war, ...	When I was five years old
Als ich klein, ...	When I was little
Als ich jünger war	When I was younger
Hatte ich ein tolles Rad	I had a great bike
Hatte ich eine komische Mütze	I had a funny cap
Hatte ich einen kleinen VW	I had a small VW
Hatte ich viele Kuscheltiere und Puppen	I had many soft toys and dolls
War ich nicht modisch	I was not fashionable
War mein Teddybär mein Lieblingsspielzeug	my teddy was my favourite toy
Mein Lieblingsessen	my favourite food
Mein Lieblingshobby	my favourite hobby
Mein Lieblingskleidungsstück	my favourite item of clothing
Erinnerungen	memories
Früher und heute	then and now
Mit welchem Alter konntest du...?	At what age could you...?
Mit sechs Monaten ...	At six months old ...
Mit einem Jahr ...	At one year old ...
Mit zwei Jahr ...	At two years old ...
Konnte ich	I could
Lächeln	smile
Laufen	walk
Sprechen	talk
Meinen Namen schreiben	write my name
Lesen	read
Rad fahren	ride a bike
Die Uhr lesen	tell the time
Was durftest du machen	What were you allowed to do?
Ich durfte ...	I was allowed to ...
Ich durfte nicht ...	I was not allowed to ...
Ich musste ...	I had to ...
Ich durfte alleine in die Schule gehen	I was allowed to go to school on my own
Ich durfte nicht alleine in die Stadt gehen	I was not allowed to go to town on my own
Ich durfte (k)ein Handy haben	I was (not) allowed to have a mobile phone
Ich durfte keine Schokolade essen	I was not allowed to eat chocolate

Module 5

Ab...jahren darf man ...	From...are you allowed to ...
Paintball spielen	Go paintballing
Einen teilzeitjob haben	have a part time job
Einen lottoschein kaufen	buy a lottery ticket
Den namen ändern	change your name
Die Schule verlassen	leave school
Ein piercing haben	have a piercing
Ein mofa fahren	ride a moped
Ein kind adoptieren	adopt a child
Bis 24 uhr in discos oder clubs bleiben	be out at a disco or a club until midnight
Blut spenden	give blood
Ohne Eltern in den Urlaub fahren	go on holiday without your parents
Sich tätowieren lassen	have a tattoo
Heiraten	get married
Mit Einwilligung der Eltern	with parental consent
Ohne Einwilligung der Eltern	without parental consent
Es gibt keine Altersgrenze	There is no age limit
Welches ist das glücklichste land?	Which is the happiest country?
Das glücklichste land	the happiest country
Das reichste land	the richest country
Das sicherste land	the safest country
Das gesundest land	the healthiest country
...hat den besten lebensstandard	...has the best quality of life
Was ist dir wichtig?	What is important to you?
...ist mir das wichtigste	...is the most important thing to me
...ist mir wichtig	is important to me
gute noten	good grades
Mein hund	my dog
ausschlafen	to lie in
...ist mir wichtig, weil...	...is important to me, because
Ich Arzt werden möchte	I want to become a doctor
Sie mich glücklich macht	it makes me happy
Es spaß macht	it's fun
Ich fit bleiben will	I want to stay fit
Er mein bester freund ist	he's my best friend
Meine Freunde sind mir das wichtigste	My friends are the most important thing to me
Meine Freunde sind mir wichtig	my friends are important to me
Die sicherheit	security/safety

Module 6 (Revision)

Als	when
Jünger	younger
Hatte/hatten	had
War/waren	was/were
Es gab	there was/were
Musste/mussten	had to
Durfte/durften	was allowed to/were allowed to
Konnte/konnten	could
Grundschule und sekundarschule	Primary and secondary
Wir haben viele Hausaufgaben	we have lots of homework
Wir hatten keine Hausaufgaben	we had no homework
Wir mussten das Klassenzimmer bleiben	we had to stay in one classroom
Es gibt ein schwimmbad	there's a swimming pool
Es gab kein schwimmbad	there's was no swimming pool
Die sekundarschule hat	the secondary school has
Die Lehrer und lehrerinnen sind streng	The teachers are strict
Die klassenzimmer sind größer	The classrooms are bigger
Die klassenzimmer waren bunter	The classrooms were more colourful
Meine klassenkameraden	My classmates
Er war der ...	He was the ...
Sie war die ...	She was the ...
Älteste	oldest
Größte	tallest
Kleinste	smallest
Intelligenteste	most intelligent
Sportlichste	sportiest
Lauteste	loudest
Musikalischste	most musical
Ungepflegteste	scruffiest
Frechste	cheekiest

German
2 of 2

The Causes of WW2 and Nazi Germany

Appeasement	Allowing something to happen or accepting demands to avoid conflict.
Aryan Race	Hitler believed some Europeans (Germans) were descended from the ancient 'Aryan' race, which he believed was racially superior.
Chancellor	Like a prime minister.
Dictator	A single strong leader who has complete power
Fascism	A political belief that includes ideas such as democracy is weak, there should be no elections. Fascists are also nationalistic, militaristic and against communism.
Gestapo	Nazi secret police.
Goebbels	Head of Nazi propaganda.
Lebensraum	'living space'. Hitler believed Germany should take back land lost in the Treaty of Versailles.
Militaristic	Prioritising the armed forces over other parts of society.
Nationalist	Believing strongly in your own country.
Nazi-Soviet Pact	23 August 1939, Hitler and Stalin made a promise not to go to war with each other and (secretly) promised to invade Poland and split it between them.
NSDAP	Nationalist Socialist German Worker's Party (Nazi Party).
Police State	A country where the government uses the police to spy on people and stamps out any opposition.
Propaganda	Communications designed to mislead people by giving a very biased view e.g. posters/films.
Reichstag	The name given to the German parliament.
Remilitarisation	Building up military resources.
Rhineland	An area of Germany bordering France.
SS	Schutzstaffel (protection squad). Elite Nazi troops who also helped to run concentration and extermination camps in Nazi Germany.

Key Dates

1929	The Wall Street Crash = Great Depression
30 Jan 1933	Hitler becomes Chancellor of Germany
Aug 1934	Hitler becomes dictator 'führer' of Germany
1935	Hitler carries out a rally to show off how he has built up his armed forces
March 1936	Hitler remilitarises the Rhineland
March 1938	Hitler successfully joined with Austria (Anschluss)
1938	Hitler invades the Sudetenland of Czechoslovakia
March 1939	Hitler invades the rest of Czechoslovakia
1 September 1939	Hitler invaded Poland
3 September 1939	France and Britain declare war on Germany

History
1 of 2

The Holocaust

History
2 of 2

Anti-Semitism	Hostility directed against Jewish people.
Boycott	When people refuse to buy or use something to make a point.
Blood Libel	The accusation in the Middle Ages that Jews had committed ritualistic murders.
Bystander	Someone who has seen or heard an event but not actively took part.
Concentration camps	A prison usually for political prisoners or members of persecuted minorities e.g Jews. In Nazi Germany, they were overcrowded with poor conditions and prisoners had to do hard labour.
Death camps	Camps like Auschwitz-Birkenau where prisoners were often murdered using gas chambers.
Einstazgruppen	SS killing squads who were given the task of murdering Jews and other minorities/ political opponents.
Final Solution	The term given to the Nazi plan to murder all European Jews.
Ghettos	Walled off areas of cities in which Jews were made to live in terrible, overcrowded conditions e.g. Warsaw Ghetto where there were 400,000 Jews in 1.3 square miles.
Genocide	The deliberate killing of a group of people e.g. of a specific nation or race.
Heinrich Himmler	Head of the SS and later the all police forces in Germany. Worked closely with Hitler and made the decisions that led to the Holocaust.
Kindertransport	A rescue attempt by the British government (1938-39) that brought about 10,000 Jewish children to Britain.
Kristallnacht	'Night of Broken Glass'. Nazi thugs robbed and smashed 7,000 Jewish businesses, homes, schools. 250 synagogues burned down.
Nuremberg Laws	Laws passed by the Nazis that put restrictions on Jews. E.g. forbidden from marrying Aryans, stripped of their right as German citizens.
Perpetrator	A person who played a role in the formulation or carrying out harmful actions (against Jews).
Persecution	Mistreatment of an individual or group.
Pogrom	Violent attacks directed against an ethnic minority, such as Jews.
Synagogue	A Jewish place of worship.
Reinhard Heydrich	Oversaw the development of the 'Final Solution' and chaired the Wansee Conference.

Key Dates

1190 Jews were blamed for a fire in York and sought refuge in Clifford's Tower. There was a massacre of the Jews who were inside the castle by angry Christians
1290 King Edward I ordered all Jews to leave England (Edict of Exclusion). They were only allowed to return in 1656
1905 The 'Aliens Act'. Britain tried to reduce the number of Jewish migrants into Britain
30 January 1933 Hitler became Chancellor of Germany
1 April 1933 When the Nazis ordered a boycott of all Jewish shops
1935 The Nuremberg Laws
1936 Berlin Olympic Games
1938 Jews had to have a 'J' stamped on their passport
7 November 1938 Kristallnacht (See glossary)
September 1939 WW2 began
September 1941 Jewish people over 6 years old had to wear a yellow star
January 1942 Wansee Conference. Nazi officials met to work out the 'Final Solution' of the 'Jewish Problem'. This led to the final stage of the Holocaust
April 1943 Warsaw Ghetto Uprising
27th Jan 1945 Russia liberates (frees) Auschwitz
1945-1949 Nuremberg War Crimes Trials
1991 War Crimes Act. Those who became British citizens after the war could be tried for any alleged war crimes between 1933-1945

Critical Success Factor

A **CSF** is a critical factor or activity required for ensuring the success of a company or an organisation.

A sources table would include the following:

Examples of a **Critical Success Factor**:

- One critical success factor is to ensure that my background colour is the same on every slide. To meet this success factor, I will use slide master.
- Another critical success factor is to ensure that there is no spelling mistakes. To meet this success factor, I will use the spell checker.
- Another critical success factor is to ensure that I have a suitable font in my work. To meet this success factor, I will use the same font throughout my work.

- Date
- Web address
- If the image was copyrighted
- What to do if it is copyrighted

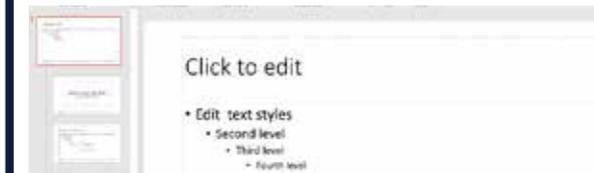
Copyright Act Law

The Copyright Act law states that an original piece of work is covered by copyright. It could be a piece of music, a play, a novel, photos or a piece of software. Copyright can be enforced by law.

It is against the law to copy and distribute copyrighted material without the copyright owner's permission.

Slide Master

Slide Master is a feature in PowerPoint that allows you to be consistent with the colour scheme, layout and font



Features of a Powerpoint

Features of a Powerpoint that makes it eye catching and appealing

- Bright colours
- Gifs
- Animations
- Transitions
- Loop

IT
1 of 2

HTML

HTML stands for **Hyper Text Markup Language**

How does HTML work?

- HTML uses tags.
- The tags tell the computer where all the different information should go and what it should look like

Websites are broken down into 3 parts:

1= The Head 2= The Body 3=The Footer

Tags used in HTML

Bold	example
Center	<center>example</center>
Heading	<h1> example</h1>
Image	
Italic	<i>example </i>
Numbered List	 example 1 example 2
Paragraph	<p>
Underline	<u>example</u>
Hyperlink	mywebsite
Font Style	example

The Project Life Cycle

The Project Life Cycle refers to the four-step process that is followed by nearly all project managers when moving through stages of project completion.

Phases of a Project Life Cycle

1. Initiation
2. Planning
3. Execution
4. Evaluation



You must perform a phase review for Initiation, Planning and Execution

Why do we use the Project Life Cycle?

It is important to ensure the project life cycle used on your project is appropriate to the work being carried out and split into distinct and manageable phases. This is a tried and tested method for delivering projects on time, within budget and to the expected quality targets.

Key Words

Contingency: Time in a project plan that has no tasks assigned. This is used if tasks are not completed on time, to make sure the project still meets the final deadline.

Milestone: A given point in time when a task is expected to be started or completed.

Interaction: How the phases link together.

Iteration: The repeating of a phase. Each repetition of a phase, when amendments will be made, is called an iteration. The results of an iteration are used as the starting point of the next.

Dependency: A dependent task is one that cannot be started until a previous, specified task has been completed.

Concurrent: Tasks which can be completed at the same time.

Critical path: The sequence of tasks that shows the shortest time taken for completion of a project.

Inputs & Outputs of the Project Life Cycle

	Inputs	Outputs
Initiation	User requirements	Feasibility report Legislation implications Phase review
Planning	Feasibility report Legislation implications	Project plan Test plan Constraints list Phase review
Execution	Project plan Test results Constraints list	Deliverable product Test results Phase review
Evaluation	Deliverable product Test results	Release of deliverable product User documentation Final evaluation report

Planning

SWOT: Analysis to find out the Strengths, Weaknesses, Opportunities and Threats of/to a project.

Asset log: A list of all the resources used in a project

Visualisation Diagram: Provide a visual view of the product – graph, webpage

Gantt chart: A visual method of showing the proposed timing of each task needed to complete a project.

Data dictionary: A description of the structure, contents and format of a spreadsheet or database. The relationships within the database are also included.

Flow Chart: A flow chart can be defined as a step by step process to solve a task.

IT
2 of 2

What is SMART

To make sure your goals are clear and reachable, each one should be:

- Specific** (simple, sensible, significant).
Measurable (meaningful, motivating).
Achievable (agreed, attainable).
Relevant (reasonable, realistic and resourced, results-based).
Time bound (time-based, time limited, time/cost limited, timely, time-sensitive).



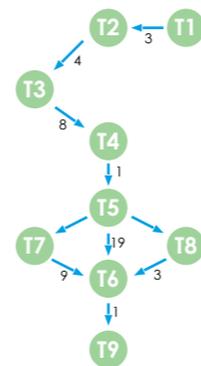
Constraints to consider in the Project Life Cycle

Time, Resources, Cost, Hardware and Software, Regulations, Security/Risk Management.

PERT Charts: Project Evaluation and Review Technique

Advantages of the Project Life Cycle

- Provides a structured approach
- Can see how the project is progressing
- Clearly defined tasks
- Roles and responsibilities are clearly defined
- Resources can be allocated in advance
- The project manager can monitor the progress of the project
- The end of phase reviews can be carried out to make sure that the project is meeting the success criteria, objectives and client-defined constraints.



To up-level your writing, you must

- Use a wide range of punctuation
- Organise sentences into clearly-structured paragraphs, linking ideas in a sophisticated way
- Include longer sentences with appropriate connectives
- Include description, choosing 'wow' words to describe things (think of the 5 senses)
- Use a variety of simple, compound and complex sentences - try some adverbial openers

Rhetorical Questions

Do you think that...?
 Don't you think that...?
 Isn't it time to...?
 Have you ever thought about...?
 Haven't you always longed for...?
 Why is it (that)...?
 When should we...?

Complex sentence openers

- Although (it was incredibly cold...),
- Even though Sam was in the company of his family,
- Despite achieving 100% in the exam,
- When there was torrential rain,
- Since I began my journey,
- If you build this house using only wood,
- As soon as he finished the chapter,

Literacy
1 of 2

Adverbial openers + comma

Slowly	Immediately
Briefly	Eagerly
Happily	Tenderly
Clumsily	Strictly
Rudely	Cautiously
Surprisingly	Regretfully
Patiently	Thankfully
Anxiously	Horrendously
Enthusiastically	Suspiciously
Mournfully	Unbelievably
Gradually	Leisurely
Hurriedly	Insanely
Wearily	Majestically
Erratically	Recently
Brutally	Graciously
Smoothly	Savagely
Sweetly	Lovingly
Hatefully	Longingly
Carefully	Meekly

Wonderful 'Wow' Words

Wonderful	Important	Bustling
Splendid	Useful	Noxious
Fantastic	Useless	Fragrant
Marvellous	Incredible	Shadowy
Valuable	Bustling	Icy
Blissful	Deafening	Fiery
Elated	Rowdy	Punctual
Cheerful	Blaring	Infantile
Quick-witted	Thunderous	Mature
Intelligent	Putrid	Colourful
Smooth	Faraway	Colourless
Luscious	Remote	Odourless
Appetising	Loathsome	Painful
Delectable	Grainy	Painless
Radiant	Polished	Magnified
Shimmering	Mediocre	Gigantic
Transparent	Sweltering	Enormous
Translucent	Frosty	Miniscule
Triangular	Steamy	Worthless
Spherical	Frightened	Impatient
Elliptical	Petrified	Surprising
Sizzling	Miserable	Glorious
Scented	Grumpy	

Time Connectives for Sequencing

Firstly/First of all	When	(Four) years ago
Then	Since	Eventually
Next	Secondly	Finally
After	Briefly	Last week/year
Soon	After a while	
Suddenly	Before	
Meanwhile	(Two) years ago	

Said Words

Shouted	Pleaded	Confessed
Exclaimed	Assured	Declared
Whispered	Pleaded	Grumbled
Bellowed	Advised	Insisted
Highlighted	Boasted	Joked
Addressed	Bragged	Muttered
Answered	Cautioned	Remarked

Connectives

Addition	Cause/Effect	Emphasis	Contrast/Balance	
And	Consequently	Above all	But	As for
Also	Thus	In particular	However	The opposite
Too	So	Notably	Nevertheless	Still
Furthermore	Hence(forth)	Specifically	Alternatively	Instead of
Moreover	Therefore	Especially	To turn to	On the other hand
In addition (to)	Accordingly	Significantly	Yet	Whereas
Again	Since	More importantly	Despite this	Otherwise
The following	Until	Indeed	On the contrary	Apart from
	As a result	In fact	As for	Although

-ing words (as openers)

Seething	Looking	Skimming
Fuming	Planting	Touching
Watching	Running	Painting
Glancing (around)	Walking	Fleeting
Raging	Dancing	Rushing
Grabbing	Singing	Dreaming
Grasping	Scanning	Creating

High frequency words - Year 9 Literacy 'Must Know' words

Ask	Asked	Began	Being	Brought	Can't
Change	Coming	Didn't	Does	Don't	Found
Goes	Gone	Heard	I'm	Jumped	Knew
Know	Leave	Might	Opened	Show	Started
Stopped	Thing	Thought	Told	Tried	Turned
Used	Walk	Walked	Walking	Watch	Write
Woke	Woken	Almost	Always	Any	Before
Better	During	Every	First	Half	Morning
Much	Never	Number	Often	Only	Second
Sometimes	Still	Suddenly	Today	Until	Upon
While	Year	Young	Above	Across	Along
Also	Around	Below	Between	Both	Different
Following	High	Inside	Near	Other	Outside
Place	Right	Round	Such	Through	Together
Under	Where	Without	Baby	Balloon	Birthday
Brother	Children	Clothes	Garden	Great	Happy
Head	Something	Sure	Swimming	Those	Word
Work	World	Earth	Eyes	Father	Fair
Friends	Important	Lady	Light	Money	Mother
Own	Paper	Sister	Small	Sound	White
Whole	Why	Window			

Will	With
Wednesday	Thursday
February	March
August	September
Yellow	Blue
Would	Your
Friday	Saturday
April	May
October	November
Green	Orange
Monday	Tuesday
Sunday	January
June	July
December	Red
Pink	Purple

Notation

$$a \times a \times a = a^3 \quad \text{and} \quad a + a + a = 3a$$

$$3ab \times 4a^2 = 3 \times 4 \times a^2 \times a \times b = 12a^3b$$

Simplifying

Collecting like terms

Remember to take signs in front of terms with the term

Example:

Expanding brackets

Single bracket

Multiply all terms inside the bracket by the term on the outside

Example: $2x(5 + 3a)$

$$2x \times 5 = 10x$$

$$2x \times 3a = +6ax \quad \text{so: } 10x + 6ax$$

Double bracket

$$(x + 3)(x - 4)$$

Factorising

Into single brackets

Look for the highest common factors of all terms:

EXAMPLE: $16x^2 + 12x$ $4x$ is the HCF of both terms

So: $4x(4x + 3)$

Into double brackets

Look what multiplies to make the number, and what adds to give the 'x' coefficient

EXAMPLE: $x^2 + 9x + 20$ $+4x + 5 = 20$ $+4 + 5 = 9$

So: $(x+4)(x+5)$

Collect like terms $\rightarrow x^2 - x - 12$

Definitions

Equation

An equation is a mathematical statement that two things are equal. It consists of two expressions, one on each side of an 'equals' sign.

Identity

Identities are true for any value of the variables

Example: $0.5a = \frac{a}{2}$

Expression

An expression is numbers, symbols and operators (+, -, x, ÷) grouped together that show the value of something.

Example: $3a + 5b - 7$

Formula

A formula is a rule or fact written with mathematical symbols.

It usually has:

- an equals sign (=)
- two or more variables (x, y, etc)

Example: The formula for the volume of a cuboid is $V = l \times w \times h$

Index laws

When dividing, subtract the powers:

$$\frac{a^7}{a^2} = a^{7-2} = a^5$$

When multiplying, add the powers:

$$a^3 \times a^5 = a^{3+5} = a^8$$

When brackets are involved, multiply:

$$(a^2)^3 = a^{2 \times 3} = a^6$$

Expressions and substitution

Creating expressions

Following the order of events in the text in order to write your expression/s correctly

Example:

The cost of a badger is b pence.

A raccoon is 5 pence more expensive than a badger and a beaver three times as expensive as a badger.

a) cost of a raccoon? $b + 5$

b) cost of a beaver? $3(b + 5)$

c) cost of a raccoon and 8 badgers?

$$b + 5 + 8b = 9b + 5$$

Substitution

Swap all unknown values into the expression to find the value

EXAMPLE:

If $a = 3$, $b = 2$ and $c = -2$ find $2ab + 4c$

$$2 \times (3) \times (2) + 4 \times (-2) = 12 + -8 = 4$$

Perimeter, Area and Measures

Perimeter

The total distance around the outside of a shape.

5cm
2cm
2cm
3cm
3cm
5cm

Add up the lengths of ALL sides:
 $2+2+3+3+5+5=20\text{cm}$

Area formulae (Area is given in the units '2')

Rectangle L W
Area = length x width = $L \times W$

Triangle
Area = $\frac{1}{2} \times \text{base} \times \text{height} = \frac{1}{2}bh$

Parallelogram
Area = base x height = bh

Trapezium
Area = $\frac{1}{2}(a+b) \times \text{height} = \frac{1}{2}(a+b)h$

Metric conversions

1cm3 = 1ml
10mm = 1cm
100cm = 1m
1000m = 1km
100cl = 1L
1000ml = 1L
1000g = 1kg

The area of this shape → Equals → The area of these two

The area of this shape:
 $= (6 \times 4) + (2 \times 3) = 24 + 6 = 30\text{cm}^2$

The area of these two:
 $6 \times 4 = 24\text{cm}^2$
 $2 \times 3 = 6\text{cm}^2$
 $24 + 6 = 30\text{cm}^2$

Area conversions

$\times 100$ $\div 100$

$1\text{cm}^2 = 100\text{mm}^2$ $\text{cm}^2 \rightarrow \text{mm}^2$ $\text{mm}^2 \rightarrow \text{cm}^2$

$1\text{m}^2 = 10\,000\text{cm}^2$ $\text{m}^2 \rightarrow \text{cm}^2$ $\text{cm}^2 \rightarrow \text{m}^2$

$1\text{km}^2 = 1\,000\,000\text{m}^2$

A square 1cm by 1cm is equivalent to a square with 10mm by 10mm

Time conversions

Example: Convert 1 hr 36 mins into hrs.
 $60\text{ mins} + 36\text{ mins} = 96/60 = 1.6\text{hrs}$

Solving Linear equations

Multistep solving

$7x + 4 = 25$ Write the equation
 $7x + 4 - 4 = 25 - 4$ Subtract 4 from both sides
 $7x = 21$ Simplify
 $7x \div 7 = 21 \div 7$ Divide both sides by 7
 $x = 3$ Simplify

Unknowns on both sides

$9x + 14 = -7x + 12$
 $9x + 7x + 14 = -7x + 7x + 12$ Add 7x to both sides
 $16x + 14 = 12$
 $16x + 14 - 14 = 12 - 14$ Take 14 from both sides
 $\frac{16x}{16} = \frac{-2}{16}$ Divide both sides by 16
 $x = -\frac{1}{8}$

Solving equations with fractions involved

Aim to get rid of the denominator first by multiplying

$\frac{(2x+5)}{3} = 17$
 $\frac{(2x+5)}{3} \times 3 = 17 \times 3$ Multiply both sides by 3
 $(2x+5) = 51$
 $(2x+5) - 5 = 51 - 5$ Subtract 5 from both sides
 $2x = 46$
 $2x \div 2 = 46 \div 2$ Divide both sides by 2
 $x = 23$

Angle fact

Regular polygons
One exterior angle of a regular polygon = $\frac{360^\circ}{\text{number of sides}}$

Interior angle + exterior angle = 180° so to find the value of one interior angle $180^\circ - \text{exterior angle}$

Parallel lines: Corresponding angles are equal

Parallel lines: Alternate angles are equal

Parallel lines: Co-interior (supplementary) angles add up to 180 degrees

Parallel lines: Alternate angles are equal

Angles in a triangle add up to 180 degrees

$a + b + c = 180^\circ$

Vertically opposite angles are equal

Angles around a point add up to 360 degrees

Angles on a straight line add up to 180 degrees

Linear inequalities

These are solved like linear equations

$2x - 4 < 18$
 $+4 \quad +4$

$2x < 22$
 $x < 11$

When you have two inequality signs used you must balance all involved

$31 < 3x + 1 \leq 49$
 $-1 \quad -1 \quad -1$ Subtract 1 from each part

$30 < 3x \leq 48$
Divide each part by 3
 $10 < x \leq 16$

This can be placed on a number line

Mathematics
2 of 3

Circles

Circumference: distance around the outside of a circle

Radius: distance from the centre of the circle to the circumference

Diameter: distance across the width of the circle through the centre

Chord: line segment with two endpoints on the circle

Tangent: straight line that touches the circle at a single point

Area and circumference

Area of a circle = $\pi \times \text{radius}^2$

Circumference of a circle = $\pi \times \text{diameter}$

Remember that the diameter = 2 x radius

Formula: Area = πr^2 Diameter = πd or $2\pi r$

Length of arc and area of sector

Arc Length = $\frac{\theta}{360} \times 2\pi r$
 $\frac{30^\circ}{360} \times 2 \times \frac{22}{7} \times 7\text{cm} = 3.667\text{cm}$

Area of Sector = $\frac{\theta}{360} \times \pi r^2$
 $\frac{30^\circ}{360} \times \frac{22}{7} \times 7^2 = 12.83\text{cm}^2$

Mathematics
3 of 3

Pythagoras' Theorem

Formula

$A^2 + B^2 = C^2$

Finding the missing sides:
To find the hypotenuse (opposite the right angle, always the longest side) you square the two shorter sides, ADD them and square root.

$\text{leg}^2 + \text{leg}^2 = \text{hypotenuse}^2$
 $a^2 + b^2 = c^2$
 $144 + 81 = c^2$
 $225 = c^2$
 $\sqrt{225} = \sqrt{c^2}$
 $15 = c$

Hypotenuse = 15 inches

$A^2 = 4 \times 4 = 16$
 $B^2 = 3 \times 3 = 9$
 $C^2 = 5 \times 5 = 25$

He found that the Areas of the two side squares add up to equal the Area of the long sloping "Hypotenuse" square.

E.g. $16 + 9 = 25$

Finding missing sides:
To find a shorter side:
Hypotenuse² - short side²
Example: $x^2 = 10^2 - 8^2$
 $x^2 = 100 - 64$
 $x^2 = 36$
 $x = \sqrt{36} = 6\text{cm}$

Volume

Volume of a cuboid
Length x width x depth

Volume of a triangular prism:
Area of the triangular face x depth

Volume of a cylinder:
 $\pi r^2 \times \text{height}$

Volume of a sphere:
 $\frac{4}{3}\pi r^3$

Pythagoras' Theorem in isosceles triangles

Use Pythagoras' Theorem to calculate the height h of this isosceles triangle.

Using Pythagoras' Theorem in half of the isosceles triangle, we have...

$h^2 + 4^2 = 5.8^2$
 $h^2 = 5.8^2 - 4^2$
 $h^2 = 33.64 - 16$
 $h^2 = 17.64$
 $h = \sqrt{17.64}$
 $h = 4.2\text{cm}$

Live Lounge Ensemble Project

Music
1 of 2

Form and Structure	The different sections of a piece of music or song and how they are ordered.
Intro	The introduction sets the mood of a song, it is often instrumental but can occasionally start with lyrics.
Verses	Verses introduce the song's theme. They are usually new lyrics for each verse which helps to develop the song's narrative, but the melody is the same in all verses.
Pre-Chorus	A section of music that occurs before the CHORUS which helps the music move forward and "prepare" for what is to come.
Chorus	All the choruses have the same lyrics. This section relays the main message of the song and this part of the song is repeated identically each time with the same melody and music (although this sometimes changes key before the CODA to add drama).
Modulates	Change key.
Middle 8/Bridge	This section adds some contrast to the verses and choruses by using a different melody and chord progression.
Instrumental Solo	Solos are designed to show off instrumentalists' skills. Rock, jazz and blues often feature solos on instruments such as piano, saxophone, guitar and drums. Sometimes the Middle 8/Bridge features an instrumental solo.
Coda/Outro	The final section of a popular song which brings it to an end (Coda is Italian for "tail").
Melody	The main tune of a popular song, often sung by the LEAD SINGER or sometimes played on instruments within the band e.g. LEAD GUITAR. A melody can move by STEP using notes that are next to or close to one another, this is called CONJUNCT MOTION, or a melody can move by LEAPS using notes that are further apart from one another which is called DISJUNCT MOTION. The distance between the lowest pitched and highest pitched note in a melody is called the MELODIC RANGE.
Chord	A group of two or more pitched notes played at the same time.
Bass Line	The lowest pitched part of a song, often performed by bass instruments such as the BASS GUITAR. The bass line provides the harmonies on which the chords are constructed.
Accompaniment	Music that accompanies either a lead singer or melody line – often known as the "backing" – provided by a band or BACKING SINGERS.
Lyrics	The words of a song performed/sung by the singer or backing singers.
Texture	Layers of sound combined to make music – in a pop song this could be the bass line, chords and melody.
Hook	A 'musical hook' is usually the 'catchy bit' of the song that you will remember. It is often short and used and repeated in different places throughout the piece.
Riff	A repeated musical pattern often used in the introduction or in the MIDDLE 8/BRIDGE or INSTRUMENTAL SOLOS of a song. RIFFS can be rhythmic, melodic or lyrical, short and repeated.
Instrumentation	Pop Bands often feature a DRUM KIT to provide the rhythm along with ELECTRIC GUITARS (LEAD GUITAR, RHYTHM GUITAR and BASS GUITAR) and KEYBOARDS. Sometimes ACOUSTIC INSTRUMENTS are used such as the PIANO or ACOUSTIC GUITAR. ORCHESTRAL INSTRUMENTS are often found in pop songs such as the STRINGS, SAXOPHONE, TROMBONE and TRUMPET. Singers are essential to a pop song - LEAD SINGER – Often the "frontline" member of the band (most famous) who sings most of the melody line to the song. BACKING SINGERS – Support the lead singer providing HARMONY and don't sing all the time but just at points within a pop song.

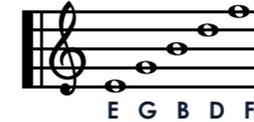
Live Lounge Ensemble Project

Music
2 of 2

Typical pop song structure:

- Intro
- Verse 1
- Verse 2
- Chorus
- Verse 3
- Chorus
- Bridge/middle 8
- Chorus
- Coda

Every Green Bus Drives Fast



Notes in the SPACES spell "FACE"



Notes from MIDDLE C going up in pitch (all of the white notes) are called a SCALE



The Elements of Music

Pulse: The beat of music. Every piece of music has a heartbeat. It doesn't need to be played by drums - you can 'feel' the beat.

Rhythm: Notes have different lengths, some long, some short. When we combine long and short sounds it creates a pattern, which is a rhythm.

Pitch: Pitch is a variation of high and low sounds. Pitch increases and decreases by step of a scale. Scales are Major and Minor.

Tempo: Tempo means the speed of the music. Music can change tempo within a piece. We describe tempo using Italian words.

Dynamics: Dynamics means the volume of the music. Music can change dynamics within a piece. We describe dynamic using Italian words.

Structure: Music is divided into sections. The order of these sections creates a structure. Song structure includes Chorus, Verse, Instrumental etc.

Texture: A single melody creates a thin sound. Adding more parts/layers creates a bigger sound. These layers can interact with each other.

Timbre: Each instrument has a unique sound and sounds different to others. This individual sound quality is called Timbre.

Tempo in Italian

Largo	Adagio	Andante	Allegro	Presto
Very Slow	Slow	Walking Pace	Fast	Very Fast

Dynamics in Italian

<i>pp</i>	<i>p</i>	<i>mp</i>	<i>mf</i>	<i>f</i>	<i>ff</i>
Planissimo Very Quiet	Piano Quiet	Mezzo Piano Medium Quiet	Mezzo Forte Medium Loud	Forte Loud	Fortissimo Very Loud

Crescendo Gradually getting louder

Diminuendo Gradually getting quieter

Rhythm Symbols and Values

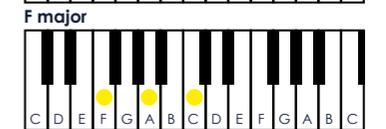
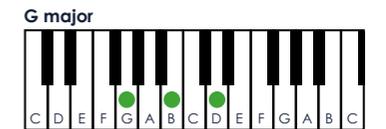
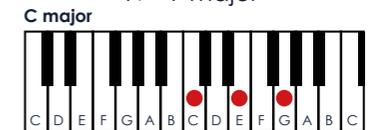
Semibreve 4 beats	Minim 2 beats	Crotchet 1 beats	Quaver 1/2 beat	Semiquaver 1/4 beat

Rhythms into Syllables

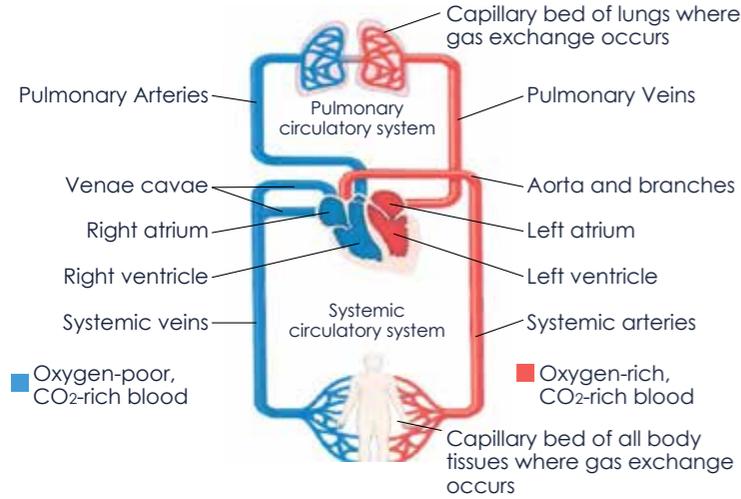
Tea	Coffee	Lemonade	Coca-Cola	Pineapple

The 4 chords commonly used in pop songs are:

- I - C major
- V - G major
- VI - A minor
- IV - F major



KPI 8 - Cardiovascular system



The cardiovascular system is made up of 3 main parts:

- The heart
- Blood
- Blood Vessels

Functions of the system:

- Deliver oxygen and nutrients to the body
- Remove waste products such as carbon dioxide and lactic acid
- Thermoregulation to maintain body temperature

Stroke Volume:

volume of blood pumped of the heart per beat.

Heart rate: Number of beats per minute

Cardiac Output: volume of blood pumped by the heart per minute.

$$SV \times BR = CO$$

All **increase** during exercise

How to remember the facts -

it's a letter game:

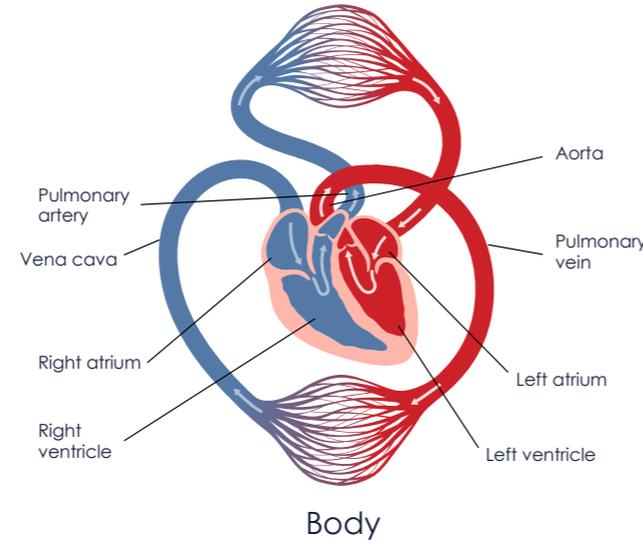
arteries = **a**way

(from the heart)

The main **a**rtery is the **a**orta

The main **v**ein is the **v**ena cava

Lungs



PE

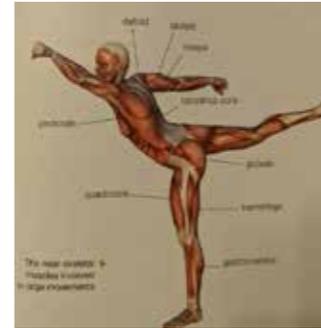
2 of 2

The muscular skeletal system allows body movement. What holds the muscles/skeleton together?

1. **Ligament:** attaches bone to bone to give joints stability
2. **Tendons:** attach muscle to bone to create a lever (allow movement)

Functions of the skeleton:

- Movement
- Support
- Protection
- Production of red blood cells



Muscle Fibres

Type 1:
Slow twitch

Type 2:
Fast Twitch

Characteristic

	Type 1	Type 2
Colour	Red	White
Energy System	Aerobic	Anaerobic
Fatigue Resistance	High	Low
Speed of Contraction	Slow	Fast
Force of Contraction	Low	High

MUSCOSKELETAL SYSTEM

Long Distance Runner

- Would use slow twitch fibres
- Needs to run for long periods
- So works aerobically
- So needs good Cardiovascular endurance
- Need good oxygen supply
- So will be red (o2 rich)
- Take longer to tire (fatigue) so can keep running for longer without stopping
- So speed and force of contract will be low as need to contract repeatedly



Sprinter

- Would use fast twitch fibres
- Needs to short for long periods but very fast and powerful
- So works anaerobically
- So needs good Speed/Power
- Does not need good oxygen supply (compared to slow)
- So will be white (o2 low)
- Fatigue (tire) quickly as working to maximum
- So speed and force of contract will be high as need to contract as strong and quickly as possible



PE

1 of 2

Evil and Suffering - Essential Knowledge

Evil	Wickedness, the absence of good, a cause of human suffering.
Natural evil	Natural disasters that cause suffering.
Moral evil	Acts of humans that cause suffering.
The problem of evil	The question of how to reconcile the existence of evil with an omnipotent, omnibenevolent, and omniscient God.
An argument from evil	The argument that because evil exists, either God does not exist or does not have all the qualities he is believed to have.
Omniscient	All-knowing.
Omnipotent	All-powerful.
Omnibenevolent	All-loving.
Theodicy	An answer to the problem of evil (why God allows evil).
Augustine's Theodicy	The argument that humans use free will to sin, which takes the responsibility for suffering away from God.

Hick's Theodicy	Humans were created as imperfect. Suffering helps humans gain virtues to develop into the 'likeness of God'.
Free will	The idea that humans are free to make their own choices.
The Fall	Adam and Eve defied God and would have to suffer in life as a punishment.
Original sin	The tendency to sin in all human beings, believed to be inherited from Adam.
The Christian Golden Rule	The teaching to 'Do to others as you would have done to you' (treat others as you would want to be treated").
The Four Noble Truths	The Buddha's teachings about suffering, its cause and the solution to it.
Dukkha	Buddhist term meaning suffering.
Tanha	Buddhist term meaning desire or craving.
The Eightfold Path	The Buddha's solution to suffering, eight practices to help avoid/reduce suffering.

Judaism	
Adonai	Name for God (means Lord).
Torah	Books of 'law' or 'teaching'.
Tenakh	The Jewish Bible.
Covenant	A pact/special relationship between God and the Jewish people.
Orthodox	Jews who believe God gave the complete Torah to Moses, and therefore live according to its laws and traditions.
Reform	Jews who believe the Torah was inspired by God and developed historically so will set aside Jewish law/traditions if they feel they are not relevant to modern life.
Rabbi	A Jewish teacher.
Shema	Statement about Jewish beliefs about god, said as a prayer and included in mezuzah and tefilin.
Mezuzah	A decorative case fixed to doorposts containing a parchment with the Shema written on.
Pesach	Festival of Passover celebrating the freeing of the Jews from slavery in Egypt.
Kosher	In accordance with Jewish law; mostly used in reference to food.

Purim	Celebration of the time when Jewish people living in Persia were saved from extermination by a young Jewish woman called Esther.
Shavuot	Celebration of the belief that G_d gave Moses the Ten Commandments.
Holocaust	The persecution and attempt to murder all Jews in Europe by the Nazis.
Shoah	'Calamity' - Hebrew term used by JEws to describe the Holocaust
Genocide	The deliberate killing of a large group of people, especially those of a particular nation or ethnic group.
Anti-semitism	Prejudice or discrimination against Jews
Prejudice	Unjustified dislike, often based on race, religion or gender, not rooted in fact
Persecution	Ill-treatment based on prejudice
Scapegoat	Person/people made to take blame for others
Yom Hashoah	'Holocaust Day' - day of remembrance for those who died in the Shoah
Liberation	Freedom from slavery, oppression or imprisonment
Universal Declaration of Human Rights	A list of fundamental human rights to be universally protected – proclaimed by the United Nations in 1948

SCIENCE: BIOLOGICAL SYSTEMS AND PROCESSES 9BB

1	Skeleton Functions	<ul style="list-style-type: none"> protection of vital organs. support. making blood cells in the bone marrow. movement.
2	Muscles	<ul style="list-style-type: none"> are attached to bones with tendons. muscle contracts causing the bone to move.
3	Antagonistic Muscle Pairs	<ul style="list-style-type: none"> a pair of muscles that work against each other. when one muscle contracts, the other relaxes.
4	Joint	<ul style="list-style-type: none"> Structure between bones.
5	Hinge joint	<ul style="list-style-type: none"> Movement is backwards and forwards in one direction. Examples include the knee and the elbow .
6	Ball and Socket joint	<ul style="list-style-type: none"> Full movement through 360°. Examples include the hip and the shoulder.
7	Fixed joint	<ul style="list-style-type: none"> The bones are fused together so no movement. Examples include the skull and the pelvis.
8	Pivot joint	<ul style="list-style-type: none"> Rotation movement around a fixed point The neck is an example.
9	Tendon	<ul style="list-style-type: none"> Fibres made of collagen which attach muscle to bone.
10	Ligaments	<ul style="list-style-type: none"> Fibres made of collagen which hold bones together with joints.
11	Diffusion	<ul style="list-style-type: none"> The movement of particles from an area of high concentration to a low concentration.
12	Drug	<ul style="list-style-type: none"> A chemical that affects how the body works.
13	Recreational drug	<ul style="list-style-type: none"> A drug which is not taken for medical reasons.
14	Medicinal drug	<ul style="list-style-type: none"> A drug which is taken for medical reasons, such as paracetamol.
15	Tar	<ul style="list-style-type: none"> A chemical found in cigarette smoke which paralyses cilia in the airways.
16	Cilia	<ul style="list-style-type: none"> Tiny hairs on cells in the airways which move mucus away from the lungs (help keep dust and bacteria out of the lungs).
17	Carbon Monoxide	<ul style="list-style-type: none"> Toxic chemical found in cigarette smoke which binds with red blood cells, meaning they carry less oxygen around the body.
18	Nicotine	<ul style="list-style-type: none"> An addictive chemical found in cigarette smoke. Causes blood vessels to become narrower, which increases blood pressure.
19	Foetus	<ul style="list-style-type: none"> A developing baby in the mother's uterus.
20	Placenta	<ul style="list-style-type: none"> An organ that connects the foetus to the wall of the uterus. Substances such as drugs can cross the placenta.
21	Nucleus	<ul style="list-style-type: none"> Part of a cell that controls cell activity.
22	Chromosomes	<ul style="list-style-type: none"> Long lengths of tightly-coiled DNA.
23	DNA	<ul style="list-style-type: none"> Chemical that genes are made of Made of two strands twisted into a double helix .
24	Gene	<ul style="list-style-type: none"> Section of DNA that codes for one particular protein.
25	Crick and Watson	<ul style="list-style-type: none"> Scientists that first built a model of DNA.
26	Wilkins and Franklin	<ul style="list-style-type: none"> Provided the data that helped the model of DNA to be developed.
27	Inheritance	<ul style="list-style-type: none"> Passing on genes from parents that determine our characteristics.
28	Characteristics	<ul style="list-style-type: none"> The features that we have, e.g. eye colour or an inherited disorder.

SCIENCE: ENERGETICS AND RATES 9CE

1	Atom	<ul style="list-style-type: none"> The smallest unit that makes up matter. Contains protons, neutrons and electrons.
2	Element	<ul style="list-style-type: none"> Substance made up of only one type of atom.
3	Compound	<ul style="list-style-type: none"> Two or more elements chemically bonded together.
4	Mixture	<ul style="list-style-type: none"> Different elements, compounds or molecules mixed together but not chemically bonded.
5	Law of conservation of mass	<ul style="list-style-type: none"> In a chemical reaction, atoms are not created or destroyed only re-arranged.
6	Thermal decomposition	<ul style="list-style-type: none"> A chemical reaction where a substance is broken down by heating.
7	Combustion	<ul style="list-style-type: none"> A reaction between a fuel and oxygen, the scientific name for burning.
8	Oxidation	<ul style="list-style-type: none"> A reaction where oxygen is added to a reactant.
9	Rate of reaction	<ul style="list-style-type: none"> The speed at which reactants turn into new products.
10	Effect of temperature on rate of reaction	<ul style="list-style-type: none"> The higher the temperature the faster the rate of reaction.
11	Effect of concentration on the rate of reaction	<ul style="list-style-type: none"> The higher the concentration the higher the rate of reaction.
12	Chemical reaction	<ul style="list-style-type: none"> In a chemical reaction reactants turn into products and a new product is formed.
13	Reactants	<ul style="list-style-type: none"> The substances which react together in a chemical reaction.
14	Products	<ul style="list-style-type: none"> The new substance(s) formed in a chemical reaction.
15	Effect of surface area	<ul style="list-style-type: none"> The greater the surface area, the higher the rate of reaction.
16	Catalyst	<ul style="list-style-type: none"> Substance that speeds up the rate of a reaction without being used up or changed in the reaction.
17	Endothermic reaction	<ul style="list-style-type: none"> A reaction that takes in energy.
18	Exothermic reaction	<ul style="list-style-type: none"> A reaction that releases energy.
19	Activation energy	<ul style="list-style-type: none"> The amount of energy needed to start a chemical reaction.
20	Reaction profile	<ul style="list-style-type: none"> A diagram which compares the amount of energy stored in the reactants and products of a chemical reaction.
21	Exothermic reaction profile	<p>The graph shows Potential Energy on the y-axis and Reaction pathway on the x-axis. The energy starts at a constant level, rises to a peak (activation energy), and then falls to a lower constant level than it started at. The title is 'Exothermic Reaction'.</p>
22	Endothermic reaction profile	<p>The graph shows Potential Energy on the y-axis and Reaction pathway on the x-axis. The energy starts at a constant level, rises to a peak (activation energy), and then falls to a higher constant level than it started at. The title is 'Endothermic Reaction'.</p>

1	Waves	• Transfer energy without the particles moving position.
2	(Longitudinal Wave)	• A wave in which the vibrations are left to right and in the same direction as the energy is travelling.
3	Sound wave	• An example of a longitudinal wave, which is caused by the vibration of air particles.
4	(Transverse Wave)	• A wave in which the vibrations are up and down and at right angle to the direction of energy travel.
5	Light wave	• An example of a transverse wave. Produced by luminous objects. Does not need particles to travel, so can travel through space.
6	Vacuum	• Region where there are no particles (such as space). • Sound cannot travel through a vacuum but light can.
7	Peak	• The highest part of a transverse wave.
8	Trough	• The lowest part of a transverse wave.
9	Amplitude	• The maximum displacement of the wave. • Measured as the distance between the centre and the peak of a wave. • If you increased the amplitude of a sound wave, the volume would increase.
10	Wavelength	• The distance between two peaks of a wave.
11	Frequency	• The number of waves passing a certain point each second. Measured in Hertz (Hz). • If you increased the frequency of a sound then it would be very high pitched.
12	Speed equation	• Speed (m/s) = Distance (m) ÷ Time (s).
13	Wave speed equation	• Wave speed = frequency X wavelength. • (m/s) (Hz) (m)

14	Absorption	• When a wave is absorbed by a material, the material's internal energy stores increase.
15	Reflection	• When a wave hits a surface and is sent back.
16	Refraction	• When a wave enters a new material, it changes speed. This causes it to change direction, which is known as refraction.
17	Superposition	• When two waves meet they affect each other.
18	Constructive interference	• When two waves meet and add together. They produce a wave with a greater amplitude.
19	Destructive interference	• When two waves meet out and cancel each other out.
20	Echo	• The reflection of a sound wave.
21	Hearing range	• The range of frequencies an organism can detect.
22	Ultrasound	• Sound waves with a frequency above 20,000 Hz (above human hearing range).
23	Uses of ultrasound	• Pregnancy scans. • Cleaning jewellery. • Detecting cracks in pipes.
24	Auditory canal	• Part of the ear where sound travels until it reaches the ear drum.
25	Ossicles	• Tiny bones found in the middle ear which pass on vibrations from the ear drum.
26	Cilia	• Tiny hairs which hang down in the liquid of the ear which respond to vibrations from sound.
27	Ear drum	• Sound waves travel through the ear canal into the ear drum, which vibrates.
28	Cochlea	• This contains tiny hairs and liquid that vibrate at the same time as bones in the ear, generating electrical signals.
29	Auditory nerve	• Transmits electrical impulses from the cochlea to your brain.

Cell Biology - Paper 1		
1	Prokaryotic	A cell with no nucleus.
2	Eukaryotic	A cell with a nucleus.
3	Ribosome	Part of a cell that makes proteins.
4	Mitochondria	The site of aerobic respiration.
5	Nucleus	In a cell, contains genetic information.
6	Cytoplasm	Where the chemical reactions happen in a cell.
7	Semi-permeable	Allows small soluble particles to pass through.
8	Mitosis	Cell division for growth.
9	Duplicate	Creating copies.
10	Osmosis	The movement of water across a membrane.
11	Active Transport	The movement of particles from low to high concentration using energy.
12	Stem cell	An unspecialised cell.
13	Diffusion	The movement of particles from high to low concentration.
14	Cloning	Creating identical copies.
15	Therapeutic	Used as a medicine.
16	Net	Overall.

Organisms & Disease - Paper 1		
1	Tissue	A group of cells working together.
2	Organ	A group of tissues working together.
3	Epidermis	Tissue that covers a plant.
4	Glandular	Tissue that produces chemicals.
5	Xylem	Tissue that carries water & ions.
6	Phloem	Tissue that carries sugar solution.
7	Epithelium	Tissue that covers animal organs.
8	Mesophyll	Tissue that carries out photosynthesis.
9	Atrium	The top chamber(s) in the heart.
10	Ventricle	The bottom chamber(s) in the heart.
11	Artery	A vessel carrying blood away from the heart.
12	Vein	A vessel carrying blood back to the heart.
13	Plasma	This carries CO ₂ and other molecules in the blood.
14	Trachea	Takes air into the lungs.
15	Stent	Holds arteries open.
16	Correlation	When 2 data sets follow the same pattern.
17	Benign	A type of tumour that does not spread.
18	Malignant	A type of tumour that can invade other tissues.
19	Transpiration	The evaporation of water from the stomata.
20	Translocation	The movement of sugar in a plant.

Atomic Structure & Bonding - Paper 1		
1	Atom	The smallest piece of an element. Has a radius of 0.1 nm.
2	Rutherford	The scientist who developed the nuclear model of an atom.
3	Element	A substance containing only one type of atom.
4	Isotope	Atoms of an element with the same number of protons but different numbers of neutrons.
5	Compound	Two or more different atom bonded together.
6	Molecule	Formed when the same or different atoms are bonded.
7	Proton	Subatomic particle in the nucleus, charge of +1, mass of 1.
8	Neutron	Subatomic particle in the nucleus, no charge, mass of 1.
9	Electron	Subatomic particle found in orbits around nucleus, charge of -1, mass of 1/2000.
10	Ion	A charged particle.
11	Ionic	Bond formed by transfer of electrons.
12	Covalent	Bond formed by sharing electrons.
13	Alloy	Mixture containing different metals.
14	Polymer	Large molecule made up of repeating units.
15	Electrostatic Attraction	Force between 2 oppositely charged.
16	Inter-molecular	Between molecules e.g. a weak force.
Nanoscience		<i>Structures that are 1–100nm in size, of the order of a few hundred atoms.</i>

The Periodic Table - Paper 1		
1	Group	Vertical column.
2	Period	Horizontal row.
3	Alkali metals	Elements in Group 1.
4	Halogens	Elements in Group 7.
5	Noble gases	Elements in Group 0.
6	Acid	Substance that dissolves in water to produce H ⁺ ions.
7	Base	Substance that can neutralise an acid.
8	Alkali	Soluble base that contains OH ⁻ ions.
9	Neutralisation	Reaction between an acid & a base.
10	Acidic	Solution with pH lower than 7.
11	Neutral	Solution with a pH of 7.
12	Alkaline	Solution with a pH above 7.
13	Filtrate	Solution produced after filtering.
14	Excess	More than is required.
15	Insoluble	Will not dissolve.
16	Mendeleev	A scientist who developed an earlier version of the periodic table.
Transition metals		<i>The metals between group 2 & 3. Form ions of different charges & coloured compounds.</i>

Energy Transfers & Particle Model - Paper 1		
1	Density	How much mass in a given volume.
2	Displaced	Moved out of position.
3	Conservation	The principle that the total energy of a system stays the same, that energy cannot be created or destroyed (only stored or transferred).
4	Internal energy	The total kinetic energy and potential energy of the particles in an object
5	Kinetic energy	The energy particles have due to their movement. Related to temperature.
6	Potential energy	The total energy related to the position of particles within a substance.
7	Conduction	The transfer of energy through a material by kinetic energy passing from one particle to another by vibration.
8	Specific heat	The amount of energy needed
9	capacity	to raise the temperature of 1 kg of substance by 1°C.
10	Specific latent heat	The amount of energy needed to melt or vaporise 1 kg of a substance without changing the temperature.
11	Insulator	Material that does not allow charge or energy to pass through it easily.
12	Pressure	Caused by the collision of particles with a surface.

Changes in Energy Stores - Paper 1		
1	Chemical store	Energy stored in chemical bonds e.g. food, fuel, glycogen in muscles.
2	Gravitational potential store	The energy stored by an object lifted up against gravity.
3	Kinetic store	Energy which an object possesses by being in motion.
4	Elastic potential store	Energy stored in squashed, stretched or twisted materials.
5	Dissipation	The spreading out/transfer of energy into less useful forms and to the surroundings.
6	Lubricant	A lubricant is anything which reduces the friction between two surfaces.
7	Power	The amount of energy transferred each second, measured in watts (W).
8	Efficiency	A measure of how much energy is transferred into a useful store.

Adverbial Openers + Comma

Despaciosamente	Slowly
Alegremente	Happily
Sorprendentemente	Surprisingly
Con prisa	Hurriedly
Brutalmente	Brutally
Con suavidad	Smoothly
Con cuidado	Carefully
Con impaciencia	Eagerly
Sin prisa	Leisurely
Locamente	Insanely

Wonderful 'wow' words

Inteligente	Intelligent
Alegre	Cheerful
Radiante	Radiant
Brillante	Shimmering
Gruñón	Grumpy
Asustado	Frightened
Atestado	Bustling
Útil	Useful
Pasional	Passionate
Puntual	Punctual

Time connectives

Por primero	Firstly	Antes	Before
Segundo	Secondly	De repente	Suddenly
Luego	Next	Hace 2 años	Two Years Ago
Brevemente	Briefly	Mientras	Meanwhile
Después	After	Hace 2 días	Two Days Ago
La semana pasada	Last Week	Cuando	When
Entonces	Then	Finalmente	Eventually
Después un rato	After A While	Desde	Since
Pronto	Soon	Al final	Finally

Time connectives

Addition

Y	And
También	Also
Además de	In Addition To
Además	Furthermore
Otra vez	Again
El siguiente	The Following

Cause/effect

entonces	consequently
por consiguiente	thus
así	so
por eso	therefore
como consecuencia	as a result
hasta	until

Emphasis

sobre todo	above all
en particular	in particular
principalmente	notably
especialmente	especially
considerablemente	significantly
de hecho	in fact

Contrast/Balance

pero	but
sin embargo	however
aún así	nonetheless
alternativamente	alternatively
a pesar de	despite
todavía	still
en lugar de	instead of...
por un lado...por el otro	on one hand...on the other

Notes



A series of 20 horizontal grey lines providing a space for writing notes.