Curriculum Companions

Year 8

Term Three

Name:

Tutor Group:

Stmarks ACADEMY

Art | Botanical Art |Topic Dictionary

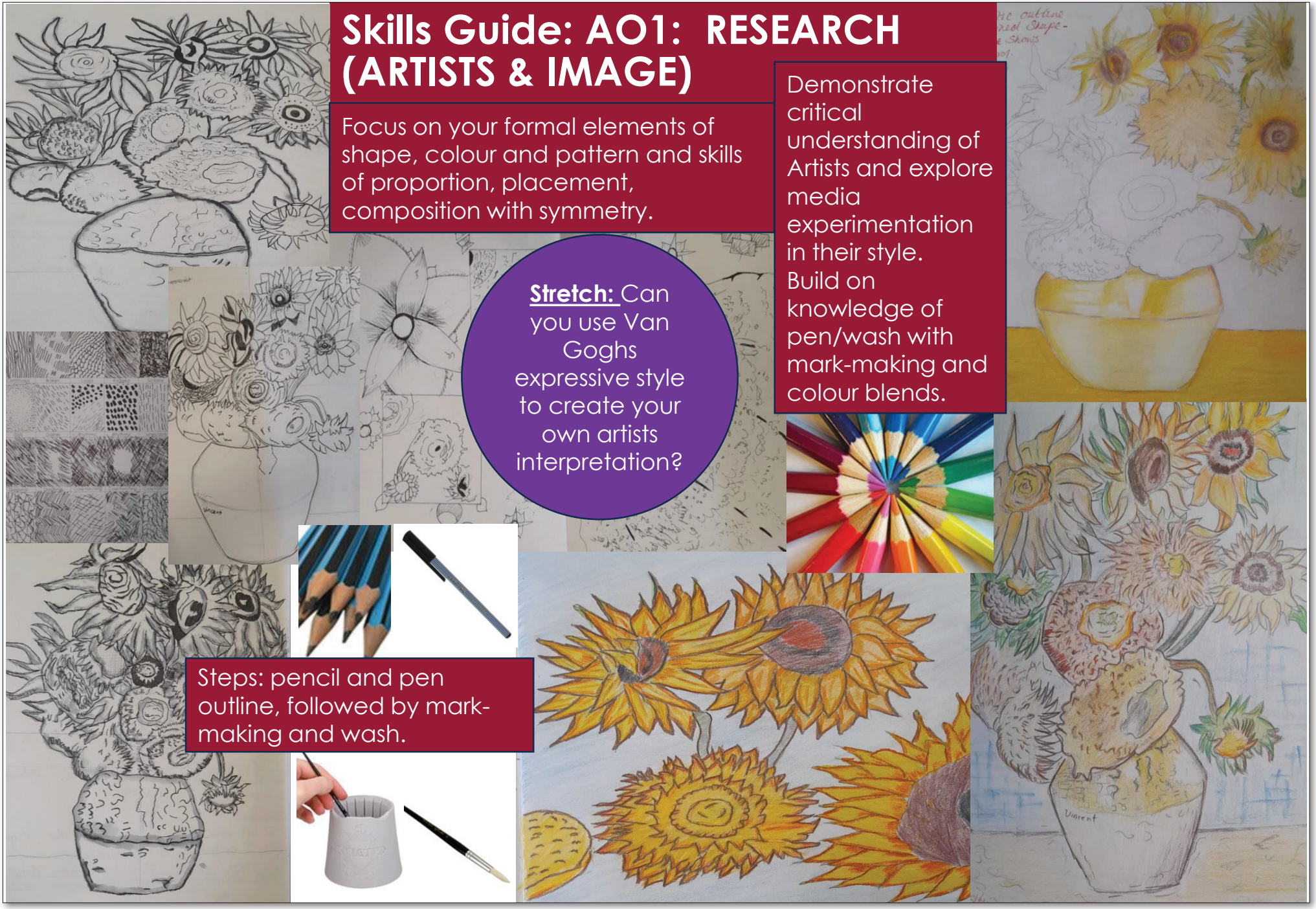
Image	Word	Definition	In a sentence...
	**botanical art**	A representation of a plant or fungi or lichen, which is scientifically and botanically correct but not necessarily 'complete' as a scientific recording.	**Botanical** artists at Kew Gardens work faithfully with the scientists to draw a true likeness of plants and flowers, connecting science and art.
	**complementary colours**	Colours that sit across from each other on the colour wheel. These are often referred to as **opposite colours** and even **contrasting colours**. The three different names all mean the same thing. When complementary colours are placed next to each other, a very strong contrast is created. The colours appear more vivid and brighter.	The **complementary colours** used in Van Gogh's botanical art are vivid and contrasting. He uses colour schemes of blues and oranges.
	**composition**	Composition is the sum of how you place all the parts within an image: the use of the edges of the frame, use of shapes within the frame, the prominence of any foreground or background details, the position of the subject within the frame, even the shape of the frame itself.	Fitch draws our eye to the central feature of a large oversized flower, framed by cropped elements of pond life, in a **composition** that is balanced with symmetry.
	**form**	In relation to art the term form has two meanings: it can refer to the overall form taken by the work – its physical nature; or within a work of art it can refer to the element of shape among the various elements that make up a work.	In my botanical tonal drawing, I have shown a range of tone from dark to light tones to create a 3D **form** in a 2D drawing.
	**mood**	The atmosphere in a painting, or the feeling expressed. Is the art tranquil, or is it dark and disturbing? Tone refers to the lightness or darkness of colours used, which can help to create a sense of depth or distance in art. Artists use light and dark colours to convey a mood or an emotion.	The tranquil setting that Fitch's white flower occupies creates a peaceful, calming **mood.**
	**scale**	the overall physical size of an artwork or objects in the artwork. We always relate scale to the size of the human body - how big or small the piece is in relation to us. An artist may decide to use a scale which is different from life-sized and this will have an impact on how it feels.	The size and **scale** of the central white flower draws your eye into the botanical illustration.
	**tint**	Where an artist adds a colour to white to create a lighter version of the colour. An example of a tint is pink. Pink is a tint created by adding white to red.	In Fitches botanical illustration he uses pink **tints** in the background flowers that have sculptural forms.
	**white**	A colour associated with purity, innocence, and simplicity in art. It can evoke feelings of cleanliness, brightness, and calmness, and is used to create space and balance or to enhance other colours' brightness.	Fitch's **white** flower reflects tone and colour back into it.

Skills Guide: AO1: RESEARCH (ARTISTS & IMAGE)

Focus on your formal elements of shape, colour and pattern and skills of proportion, placement, composition with symmetry.

Demonstrate critical understanding of Artists and explore media experimentation in their style. Build on knowledge of pen/wash with mark-making and colour blends.

Stretch: Can you use Van Goghs expressive style to create your own artists interpretation?

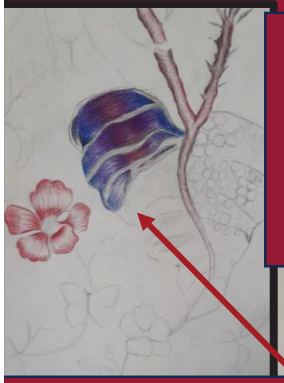


Steps: pencil and pen outline, followed by mark-making and wash.

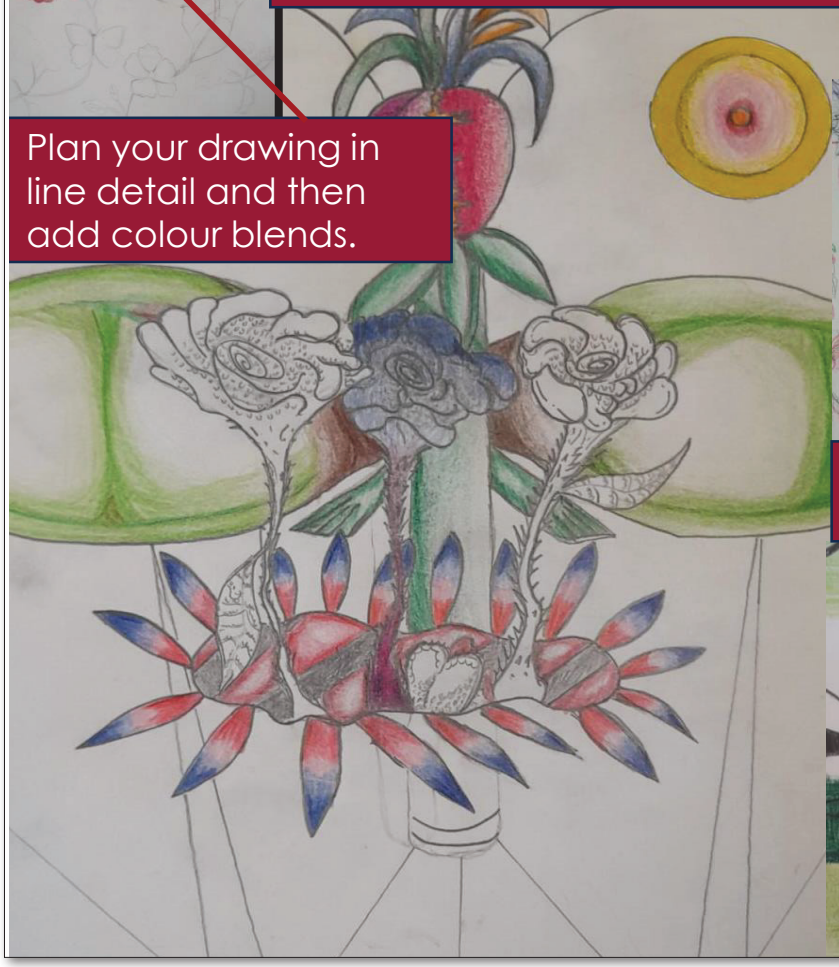
AO4: Final Outcome

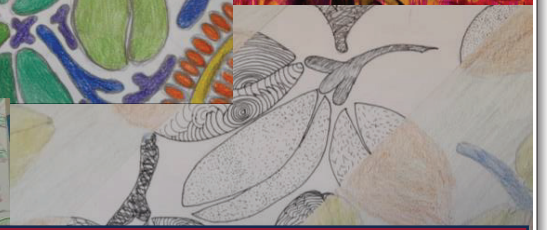
Present a personal and meaningful response that realises intentions and demonstrates understanding of visual language in response to Trisha Guild and Althea McNish

Using Natural Forms reference material students have used these female designers to influence their designs. **What key skills have they used?**



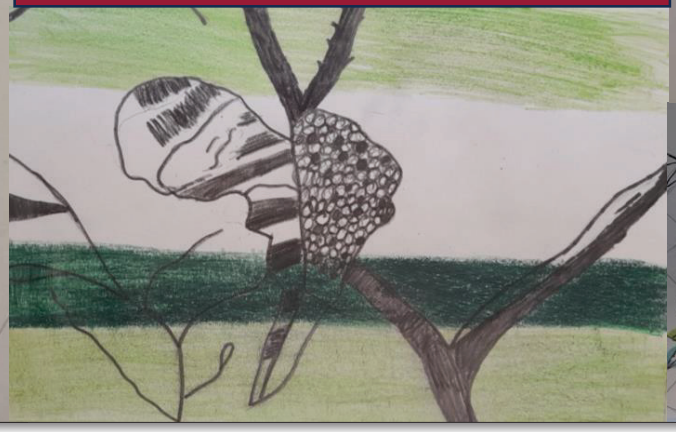
Plan your drawing in line detail and then add colour blends.

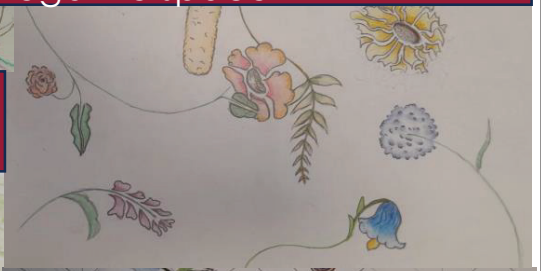




In your planning consider: composition, layout, symmetry, positive and negative space

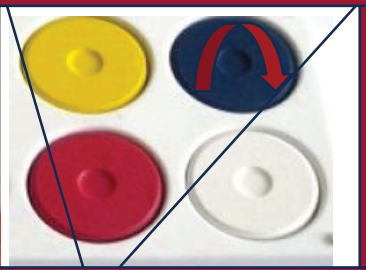
Which Formal Elements do these designs showcase?





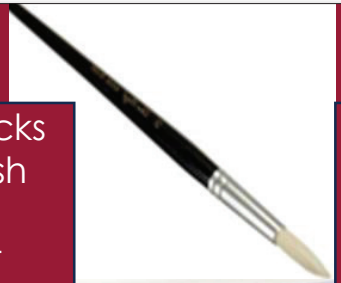
AO2: EXPERIMENTS WITH MEDIA(Refine)

Mix primary colours to create variations of secondary colours.



Tempera block paints

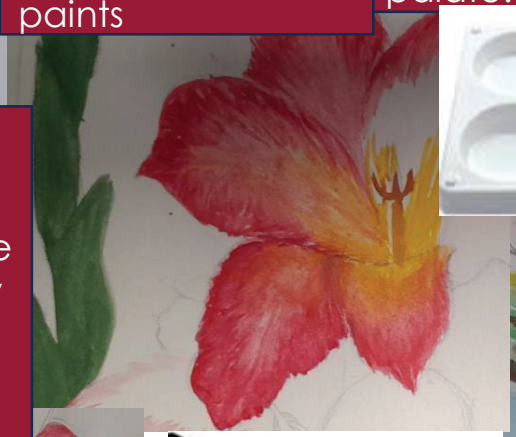
Wind tempera blocks clockwise with brush to create bubbles, this will be the right consistency. Mix primary colours together to create secondary colour in empty spaces in palate.

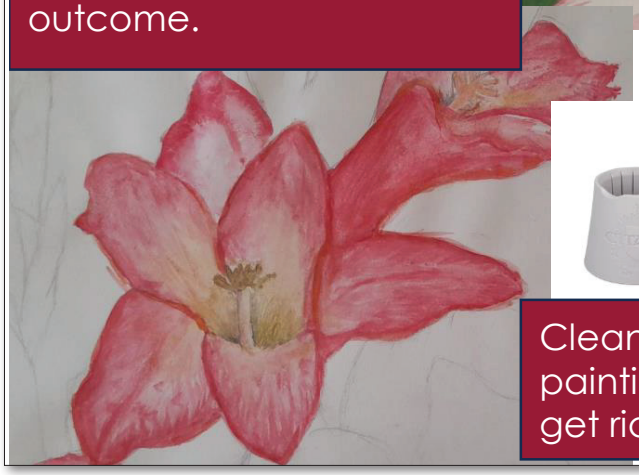


Skills Guide

Watercolour: move brush backwards and forwards on colour, the more you move the brush the more pigment you pick up (colour). Move to lid to mix, add water for more translucent (soft see through layers).

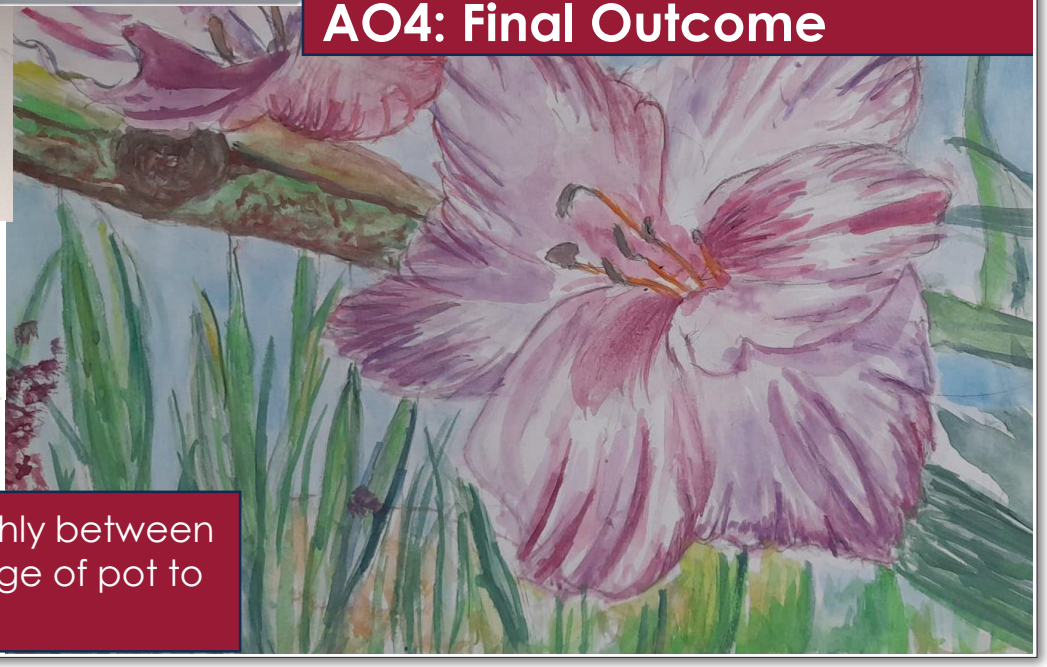
Once you are secure in applying paint and have successfully completed the colour wheel, start to softly draw out your outline for your painted AO4 outcome.





Clean your brush thoroughly between painting, tap brush on edge of pot to get rid of excess water.

AO4: Final Outcome



Drama | What skills do I need to be successful in Drama? | Skills Organiser

Drama: Term 2 – Skills Dictionary:

Rank yourself based on your confidence in each skill in week 1 and in week 12
4= Excellent understanding (no areas for development, fully consistent)
3= Good understanding (many strengths and a few areas for development, consistent)
2=Basic understanding (some strengths and some areas for development, mostly consistent)
1=No understanding (few strengths and many areas for development, inconsistent)

Vocal Skill	Definition	Examples of how to improve	1	12
projection	Using the voice to fill the performance space. E.g: An actor working in the hall will have to project more than an actor performing in the studio. **Projection** is important because the audience need to hear you.	. Diaphragm exercises. Breathing exercises Vocal warm ups.		
articulation	Speaking clearly so the dialogue can be understood.	Vocal Warm Ups Tongue twisters Focus on consonants		
tone	Communicating emotion with the voice	Knowing character and their motivation: Units and objectives Subtext Given Circumstance Opera exercise.		
pace (voice)	How fast or slow you speak.	Recording dialogue. Extreme Slow down Extreme Speed up		
volume	How loud or quiet you are.	Play with volume, Extremely loud/ quiet. Note impact.		
pitch	How high or low the voice is	Scales		

Physical Skill	Definition	Examples of how to improve	1	12
gesture	Using the body to communicate character/ emotion.	Exaggeration Selecting key words Mime		
facial expression	Using the face to communicate character/ emotion.	Facial warm ups – chewing toffee etc Rehearsing with a mirror.		
pace (movement)	How fast or slowly you move	Jacques LeCoq's 7 levels of tension.		
levels	How high or low you are compared to something/someone else	Utilising blocks/chairs etc		
space	The distance between two people or things.	Draw the stage out using masking tape.		

Term 3 | Responding to a Brief | Knowledge Organiser

The Suitcase

An old suitcase is found at a bus stop.

Inside, are a range of objects – each with a story to tell.

Week	Stimulus
1	The photo
2	The bear
3	The blanket
4	The song
5-8	Rehearsal
9	Performance

To explore Stanislavski we will be using drama games and scripts to help us develop our understanding of key principals of acting.

Half term 1 Key Words: The suitcase (Devising)	
Devising	True to life
Stimulus	A starting point
Plot	The story line
Dialogue	The conversation between two or more characters
Monologue	A solo speech

Half term 1 | How can I track my development in Drama? | Knowledge Organiser

	Checkpoint 1	Checkpoint 2	Checkpoint 3
	❑ I lead my ensemble and ensure everyone's ideas are heard. ❑ I am always focused in rehearsal and **encourage others to do so as well.** ❑ I apply a range of practitioner's techniques effectively. ❑ I include physical and vocal skills to enhance the performance. ❑ I interpret the characters with innovation and creativity	❑ I lead my ensemble and ensure everyone's ideas are heard. ❑ I am always focused in rehearsal and **encourage others to do so as well.** ❑ I apply a range of practitioner's techniques effectively. ❑ I include physical and vocal skills to enhance the performance. ❑ I interpret the characters with innovation and creativity	❑ I lead my ensemble and ensure everyone's ideas are heard. ❑ I am always focused in rehearsal and **encourage others to do so as well.** ❑ I apply a range of practitioner's techniques effectively. ❑ I include physical and vocal skills to enhance the performance. ❑ I interpret the characters with innovation and creativity
	❑ I contribute ideas to my ensemble and encourage others to share their ideas. ❑ I am **always** focused in rehearsal. ❑ I apply some practitioner's techniques effectively. ❑ I use physical and vocal skills creatively to communicate with the audience. ❑ I face the audience during my performance.	❑ I contribute ideas to my ensemble and encourage others to share their ideas. ❑ I am **always** focused in rehearsal. ❑ I apply some practitioner's techniques effectively. ❑ I use physical and vocal skills creatively to communicate with the audience. ❑ I face the audience during my performance.	❑ I contribute ideas to my ensemble and encourage others to share their ideas. ❑ I am **always** focused in rehearsal. ❑ I apply some practitioner's techniques effectively. ❑ I use physical and vocal skills creatively to communicate with the audience. ❑ I face the audience during my performance.
	❑ I contribute ideas to my ensemble. ❑ I am **mostly** focused in rehearsal. ❑ I apply a few practitioner's techniques effectively. ❑ I use physical and vocal skills to communicate with the audience. ❑ I mostly face the audience during my performance.	❑ I contribute ideas to my ensemble. ❑ I am **mostly** focused in rehearsal. ❑ I apply a few practitioner's techniques effectively. ❑ I use physical and vocal skills to communicate with the audience. ❑ I mostly face the audience during my performance.	❑ I contribute ideas to my ensemble. ❑ I am **mostly** focused in rehearsal. ❑ I apply a few practitioner's techniques effectively. ❑ I use physical and vocal skills to communicate with the audience. ❑ I mostly face the audience during my performance.
	❑ I attempt to work effectively as an ensemble member. ❑ I **attempt** to stay focused in rehearsal. ❑ I attempt to apply practitioner's techniques effectively. ❑ I attempt to use physical and vocal skills to communicate with the audience. ❑ I attempt to face the audience during my performance.	❑ I attempt to work effectively as an ensemble member. ❑ I **attempt** to stay focused in rehearsal. ❑ I attempt to apply practitioner's techniques effectively. ❑ I attempt to use physical and vocal skills to communicate with the audience. ❑ I attempt to face the audience during my performance.	❑ I attempt to work effectively as an ensemble member. ❑ I **attempt** to stay focused in rehearsal. ❑ I attempt to apply practitioner's techniques effectively. ❑ I attempt to use physical and vocal skills to communicate with the audience. ❑ I attempt to face the audience during my performance.

Knowledge Organiser | Macbeth | Spring 2

Plot

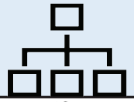
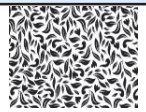
- Macbeth and Banquo meet three witches, who prophesise that Macbeth will become King and Banquo's son will be king.
- The witches' first prophecy comes true and King Duncan makes Macbeth Thane of Cawdor.
- Lady Macbeth persuades Macbeth to murder King Duncan in his sleep.
- Lady Macbeth's and Macbeth frames King Duncan's servants as the murderers. Malcolm and Donalbain leave Scotland for their own safety.
- Macbeth becomes king.
- Macbeth worries about the witches' third prophecy and sends murderers to kill Banquo and his son.
- Macbeth is haunted by visions of Banquo's ghost.
- Macbeth visits the witches and they tell him: the only person he needs to beware of is Macduff, no one a woman has given birth to can harm him and he won't be defeated until Birnam Wood moves. He thinks he's unbeatable.
- Macbeth has Macduff's family murdered.

- Macduff and Malcolm arrive in Scotland with an army. On their way to attack Macbeth's castle they cut down branches from the trees in Birnam Wood to use as camouflage. When the wood moves, one of the witches' prophecies come true.
- Macduff reveals that he was born by a caesarean birth and kills Macbeth, fulfilling the final prophecy.

Characters

Assessment Questions:
Baseline: How is Macbeth presented in Act One of 'Macbeth'?
Final: How far does Shakespeare present Macbeth as a violent character?

English | Macbeth | Topic Dictionary

Image	Word	Definition	In a sentence
	**ambition**	If you have an ambition to do something, you very much want to achieve it.	**Ambition** drove him to greatness, but also to ruin.
	**fate**	An unstoppable power which some believe controls what happens in people's lives.	She believed **fate** had already decided her destiny.
	**heir**	If you are someone's heir, you will receive what they have after they die.	The young **heir** was unprepared for the responsibilities of the throne.
	**hierarchy**	A system of organizing people into levels of importance.	The **hierarchy** of the company left little room for innovation.
	**manipulate**	If you manipulate someone, you control their actions by persuading them to do what you want.	He tried to **manipulate** the situation to his advantage.
	**masculinity**	Masculinity means the qualities which are believed to make someone a man.	His exaggerated **masculinity** masked deep insecurity.
	**motif**	A motif is a pattern or a repeating idea or image in a piece of writing.	The colour red became a recurring **motif** in the novel.
	**soliloquy**	When a character speaks their thoughts aloud while they are alone on the stage.	In his final **soliloquy**, the villain revealed his true intentions.
	**tragedy**	A genre of play where the main character has a downfall ending in their death.	Shakespeare's **tragedies** include *Macbeth* and *Romeo and Juliet*.
	**transgress**	To cross a line that you shouldn't, or break a rule of behaviour.	If you **transgress**, you will get a detention.
	**treason**	The crime of betraying your country or king.	His act of **treason** cost him his life.

Y8 English | Macbeth | Assessment Guide

Baseline Assessment: How is Macbeth presented in the Captain's speech?

For brave Macbeth (well he deserves that name),
Disdaining Fortune, with his **brandished steel**,
Which **smoked** with bloody execution,
Like Valor's minion, **carved out his passage**
Till he faced the slave;
Which ne'er shook hands, nor bade farewell to him,
Till he **unseamed him** from the nave to th' chops,
And **fixed his head upon our battlements**.

Step 1: Annotate the question
- Focus on key word – Underline or Circle them.
- Look for the **key theme** that is the focus of the question.

Step 2: Read the extract
- Bullet point your ideas about the **key theme** in the text.

Step 3: Thesis Statement
- Summarise your ideas from your bullet points to detail your opinion of how the question focus is outlined in the text.

Step 5: Paragraph Planning
- Number your bullet points
- Choose which quotes you will use to support each point

Step 6: Writing
- Use your plan to begin writing with a layered analysis of quotes.

You will write your **baseline assessment** answering this question.

For your **final assessment**, you will answer a question about Macbeth using a different extract.

Analysis Skills Guide

Use the questions below to generate ideas for your What / How / Why paragraph.

<u>*What* is Shakespeare saying about the theme/character in the question?</u>

- How could I reuse the words in the question to give myself a topic sentence?

<u>*How* does Shakespeare convey/ present/ develop this?</u>:

- What quotation proves your idea?
- What tone is the quotation spoken in?
- Why did the writer choose this tone?
- Which are the powerful words or techniques that convey the most meaning?
- What different connotations do these words have? What do they make you imagine, think about or feel?

<u>*Why* did Shakespeare write it? What was his intention/purpose?</u>

- What attitudes or feelings are revealed by the quotation?
- What was happening at the time that is mirrored in the poem?
- Is the writer trying to create shock or sympathy/ to expose or criticise/ to warn or challenge?

Annotated Example

How does Shakespeare portray Macbeth as ambitious in Act 1 Scene 7?

Topic sentence

Technique

Powerful word

Tone

Shakespeare portrays Macbeth as ambitious by emphasising Macbeth's own realisation that he has no grudge against Duncan and no valid reason to kill him. Shakespeare demonstrates this in the quote 'I have no spur / To prick the sides of my intent, but only / Vaulting ambition'. Shakespeare uses the metaphor of a sharp metal spur for making horses go faster to show that Duncan has not injured Macbeth and Macbeth's 'intent' to kill him has no justification. Instead, Macbeth only has 'vaulting' ambition, a word which connotes jumping extremely, dangerously high. This further suggests Macbeth knows his ambition is foolish to the extent that he could cause himself harm. The tone, therefore, is guilty and uncertain. Shakespeare wanted to criticise excessive ambition, particularly ambition that might lead to regicide. Regicide would have been viewed as a religious sin and an enormous disruption of social order, so Shakespeare intended his audience to view Macbeth's ambition with unease and disapproval.

Quote

Effect of technique

Connotations

Author's intention

Social attitudes

As a Year 8 English student I know:	
The structure and features of a tragedy.	
The definition and effects of hierarchy and patriarchy.	
Jacobean society, attitudes and big ideas.	
A range of dramatic and literary techniques.	
The structure of a What / How / Why paragraph.	

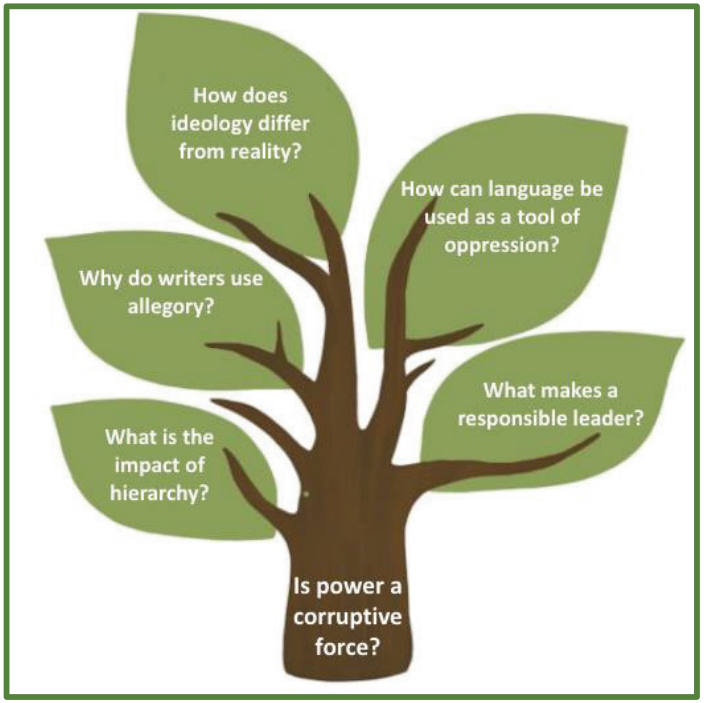
As a Year 8 English student I can:	
Identify tragic elements in a text.	
Consider how hierarchy and patriarchy are portrayed.	
Make links between text and context.	
Analyse techniques.	
Write a What / How / Why paragraph.	

Knowledge Organiser | Animal Farm | Spring 2

Context – Power Imbalances: *Animal Farm* explores power and control. Mr. Jones rules through force, just as the Russian ruling class controlled the poor before 1917. The animals unite to overthrow him, showing power can be used for change. However, the pigs take control through rhetoric and propaganda.

Context – Class: *Animal Farm* explores how class structures re-emerge after revolution. The animals overthrow Mr. Jones, but over time, the pigs rise to power and become the new ruling class. Orwell highlights how even among the oppressed, divisions and hierarchies can form, preventing true equality.

Context – Corruption: *Animal Farm* critiques Soviet communism. Orwell supported socialist ideals but condemned how leaders abused them. The gradual destruction of the Seven Commandments symbolizes this betrayal. The pigs, once revolutionaries, become corrupt, using their power to manipulate and exploit the other animals.



Quote Bank

- 'Four legs good, two legs bad.'
- 'All animals are equal, but some animals are more equal than others.'
- 'The pigs did not actually work, but directed and supervised the others. With their superior knowledge it was natural that they should assume the leadership.'
- 'Is it not crystal clear, then, comrades, that all the evils of this life of ours spring from the tyranny of human beings?'
- '"If you have your lower animals to contend with," he said, "we have our lower classes!"'

Characters

Assessments will be **extract based questions**.

Baseline Assessment – Extract from Old Major's Speech. "How does Orwell present Old Major as a wise and persuasive leader?"

Final Assessment – Extract from one of Squealer's speeches.

English | Animal Farm | Topic Dictionary

Image	Word	Definition	In a sentence
	**allegory**	Story with a hidden meaning, often political or moral.	Animal Farm is an **allegory** for the Russian Revolution.
	**capitalism**	Economic system based on private ownership and profit.	In **capitalism**, businesses compete to make a profit.
	**class**	Social grouping based on wealth or status.	The animals were divided into different **class** groups.
	**corruption**	Dishonest or unfair behaviour by those in power.	Napoleon's **corruption** led to the animals' suffering.
	**communism**	System where property is shared and wealth is distributed equally.	Old Major believed in **communism** and equality for all animals.
	**grievance**	Complaint about unfair treatment.	The animals had a **grievance** about their poor living conditions.
	**novella**	Short novel.	Animal Farm is a **novella**, not a full-length novel.
	**oppression**	Cruel or unfair control over others.	The pigs used fear and **oppression** to control the farm.
	**rhetoric**	Persuasive or impressive speech or writing.	Squealer's **rhetoric** convinced the animals to obey Napoleon.
	**tyranny**	Cruel and unfair rule by a leader or government.	Napoleon's **tyranny** was worse than Jones's rule.

English | Animal Farm | Rhetorical Terms Dictionary		
Word	**Definition**	**Example**
direct address	Words such as 'we', 'us', and 'ours' which link the speaker and audience.	We must unite, comrades, or Jones will return!
dishonesty	Using lies and deception to convince.	Napoleon never took the milk; it simply vanished.
emotive language	Words or phrases used to manipulate the audience into feeling a certain emotion.	The poor, starving animals shivered in the bitter cold of winter.
ethos	Establishing your authority and credibility.	I, Comrade Napoleon, have always worked tirelessly for your welfare.
logos	Logic and facts.	Production has increased by 50% since we took control of the farm.
pathos	Appealing to the audience's emotions.	Do you want to see Boxer sent to his death?
repetition	The same words or phrase used near one another for effect.	Napoleon is always right, always right!
rhetorical question	A question which does not require an answer.	Surely, no one wants the humans back?
triplet/tricolon	Three words or phrases that are related in some way.	Work harder, obey orders, trust Napoleon!

Analysis Skills Guide

Use the questions below to generate ideas for your What / How / Why paragraph.

***What* is Orwell saying about the theme/character in the question?**

- How could I reuse the words in the question to give myself a topic sentence?

***How* does Orwell convey/ present/ develop this?**:

- What quotation proves your idea?
- What tone is the quotation spoken in?
- Why did the writer choose this tone?
- Which are the powerful words or techniques that convey the most meaning?
- What different connotations do these words have? What do they make you imagine, think about or feel?

***Why* did Orwell write it? What was his intention/purpose?**

- What attitudes or feelings are revealed by the quotation?
- What was happening at the time that is mirrored in the text ?
- Is the writer trying to create shock or sympathy/ to expose or criticise/ to warn or challenge?

Annotated Example

How does Orwell present Old Major as a wise and persuasive leader?

Topic sentence

Technique

Powerful word

Connotations

Author's intention

Orwell presents Old Major as a wise and persuasive leader by showing his rhetorical skills. This is evident in the quote 'Weak or strong, clever or simple, we are all brothers.' By portraying Old Major using the juxtaposing pairs of 'weak' versus 'strong' and 'clever' versus 'simple', Orwell shows that Old Major is a skilled speaker. Moreover, the juxtaposition implies that all animals are welcome, no matter what. Additionally, the word 'brothers' implies that all animals are loved and deserve one another's loyalty. As such, the reader understands how included and valued the other animals might feel and how loyal this might make them towards Old Major. Perhaps Orwell wanted demonstrate how important it is for wise leaders to challenge power imbalances and corruption as an allegorical warning against both capitalism and corrupted forms of socialism.

Quote

Effect of technique

Social attitudes

As a Year 8 English student I know:	
The impact of power imbalances, class hierarchies and corruption.	
The historical and social context of the early 20th century.	
A range of literary techniques.	
The structure of a What / How / Why paragraph.	
A range of rhetorical techniques.	

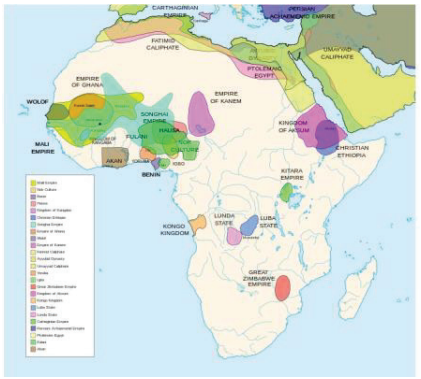
As a Year 8 English student I can:	
Consider how hierarchies, power imbalances and corruption are portrayed.	
Make links between text and context.	
Analyse techniques.	
Write a What / How / Why paragraph.	
Use rhetorical techniques in my writing	

Geography | Is Africa a changing continent (2)? | Topic Dictionary

Image	Key word	Definition	In a sentence
	**climate change**	When the Earth's weather patterns change a lot over a long time	The rapid **climate change**, caused by human activity, is having devastating consequences for ecosystems around the world.
	**colonialism**	When one country takes over another country and controls it, often to get its resources.	The impact of **colonialism**, evident in political boundaries and economic structures, can still be felt in many nations today.
	**culture**	The way of life of a group of people, including their traditions, art, and beliefs.	The vibrant **culture**, rich in traditions and artistic expression, contributes to the unique identity of the city.
	**desertification**	When good land turns into desert, so it's hard to grow anything there.	The process of **desertification**, exacerbated by climate change, threatens the livelihoods of millions of people.
	**develop**	To grow and get better, or to create something new.	Companies **develop** new products and services to meet the changing needs of consumers.
	**economic**	About money: how it's made, used, and shared.	The government's **economic** policies, designed to stimulate growth, have been met with mixed reactions.
	**education**	Learning at school or from experiences.	A quality **education**, accessible to all, is essential for building a strong and equitable society.
	**inequality**	When one group of people have a lot more than others.	The growing **inequality**, both within and between nations, poses a significant threat to social stability.
	**invest**	To put money or effort into something, hoping to get something good back.	Governments should **invest** heavily in renewable energy infrastructure to combat climate change.
	**social**	About people: how people live together in communities.	The **social** implications of technological advancements, such as artificial intelligence, are a subject of ongoing debate.
	**sustainable**	Meeting the needs of the present generation without compromising the needs of future generations.	Businesses must **sustainable** practices, like reducing waste and minimizing their carbon footprint, to protect the environment.

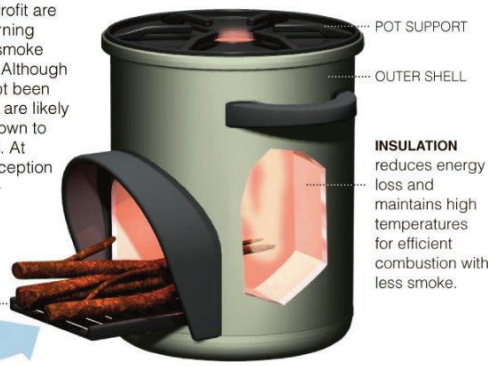
Geography | Is Africa a changing continent (2)? | Knowledge Organiser

In **200BC**, Africa contained small nations.



A Cleaner Stove

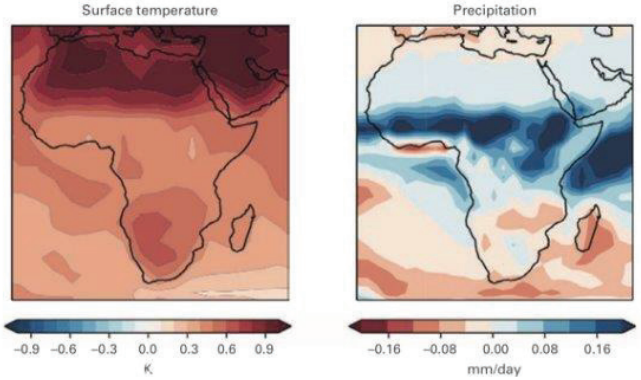
Researchers at Envirofit are designing clean-burning stoves that reduce smoke and use less wood. Although the designs have not been finalized, the stoves are likely to use principles known to work in other stoves. At right, an artist's conception of a compact clean-burning stove.

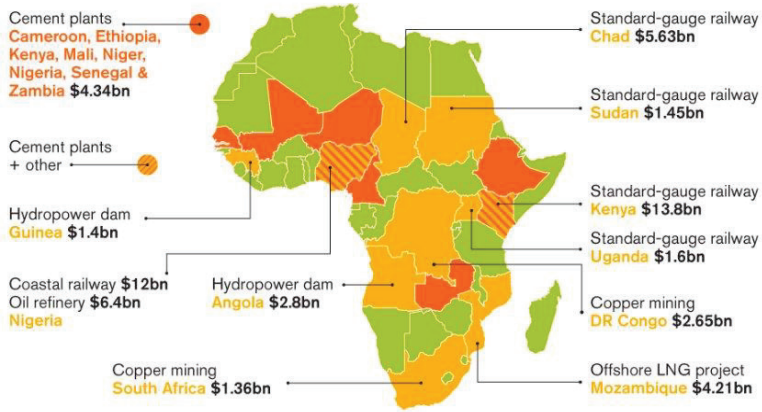


Sources: Envirofit; Aprovecho Research Center

THE NEW YORK TIMES

Predicted forecasts of surface temperatures and precipitation for 2020 – 2024.





China is heavily investing in Africa, for example, funding infrastructure implementation and natural resource projects. This means that China has greater influence over trade with Africa.

Colonial investment built infrastructure for Johannesburg's development, but colonialism also brought racial segregation, exploitation, and environmental damage.

The **Sahel** region is in the continent of Africa, south of the Sahara Desert.The Sahel goes through lots of countries, for example Senegal, Mali, Burkina Faso, Niger.

For many girls around the world, the most education they can expect is five years of schooling. However, across Africa, 28 million girls will never even set foot in a classroom.

As a Year 8 Geographer, I know…	
Does China want to help Africa develop?	
Why are girls left behind?	
How can a cooking stove change a life?	
How is the Sahel region impacted by climate change?	
How did one man stop the desert?	
Why is Johannesburg wealthy?	
Why are there still inequalities in Africa?	

Geography | Is Africa a changing continent (2)? | Skills guide

Interpreting a graph

If you are asked to explain a pattern on a graph, the following TEA structure will help you.

1. Trend – What is the overall pattern of the graph?
2. Examples – Pick out examples that support the overall pattern.
3. Anomalies – Is there any part of the data that doesn't fit the overall trend?

Overall, the amount of internally displaced people has increased in Africa. An example is in Burkina Faso it has risen from 100,00 people to over 1 million people. Compared to Mali and Niger, Burkina Faso has seen significantly more people have to leave, making it the anomaly.

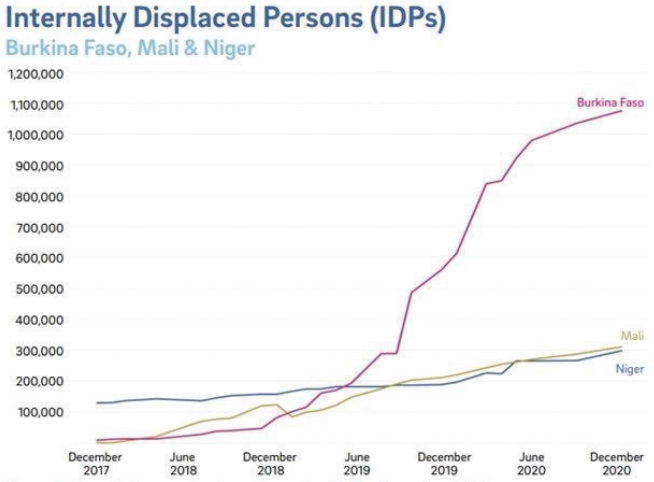


Figure 3. Monthly data ranging from December 2017 to December 2020.
Data source: UNHCR & IOM DTM

Answer the lesson question.

Why are there still inequalities in Africa?

Sentence starters

- Inequality is .....
- Africa has changed over history because....
- Colonialism is .....
- Colonialism has impacted Africa because...

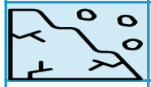
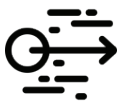
Challenge: Overall, why do you believe there are still inequalities in the continent of Africa.

Geography is an enquiry-based subject. Our lesson titles are big questions, and we work together in class by collecting evidence and information relating to each lesson question. By the end of the lesson, you are equipped to answer it! Using the success criteria and sentence starters on the last lesson slide, you are supported in synthesising your class work into an academic and informed response to the big lesson question.

Success criteria

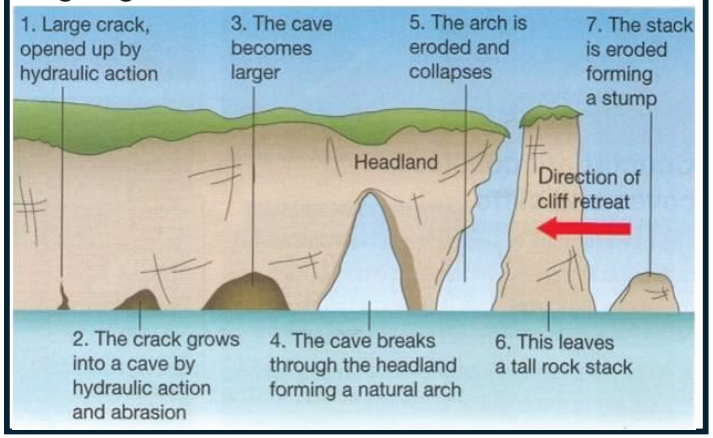
- ✓ **Explain** what inequality and colonialism are
- ✓ **Describe** how colonialism has changed Africa.
- ✓ **Explain** how colonialism has impacted Africa.

Geography | Are UK coastlines under threat? | Topic Dictionary

Image	Key word	Definition	In a sentence
	**biological weathering**	The actions of plants and animals on the land.	Roots of young plants can cause **biological weathering** by forcing their way into cracks which breaks up rocks.
	**chemical weathering**	Rocks and stone are dissolved by acid rain.	The stone statue in London was **chemically weathered** by acid rain.
	**coastline**	The line where the land meets the sea.	People might choose to go to the **coastline** on holiday so that they can enjoy the beaches and the sea!
	**deposition**	The dropping of sediment carried by wind, flowing water, the sea or ice	The rocks were **deposited** by the river. The sea **deposited** sand on the beach
	**erosion**	The natural process of materials becoming worn away by water and wind	The bank of the river was **eroded** by fast flowing water. This cliffs along the coastline are **eroded** by the sea.
	**hard (resistant) rock**	Hard/ resistant rock is rock that is more resistant to weathering and erosion.	It takes longer for **resistant rock** to wear away. An example is chalk.
	**hard engineering**	Hard engineering is usually a big, expensive project. It uses man-made materials to slow down erosion.	Examples of **hard engineering** at the coast include: Sea walls, groynes and rock armour.
	**human features**	Part of human Geography and are made by humans.	Coastal defences such as groynes are **human features**.
	**mass movement**	Mass movement occurs when weathered material moves downhill under the force of gravity (often lubricated by water).	Heavy rainfall can cause cliff to become saturated and heavy, which leads to cliff slumping as it collapses. This is an example of **mass movement.**
	**mechanical weathering**	The breaking down of rocks, caused by rainwater and temperature extremes.	The rock was eroded by **mechanical weathering:** rainwater froze in the crack of the rock causing the rock to crack open even more.
	**physical features**	Part of physical Geography and occur naturally.	The cliffs, stacks and stumps are all **physical features** of a coastline.
	**soft engineering**	Soft engineering methods are cheaper methods that work with nature and so are often sustainable and last a longer time.	Examples of soft engineering at the coast include: beach nourishment and cliff regrading
	**soft (less resistant) rock**	Soft/ less resistant rock is rock that is more vulnerable to weathering and erosion.	It takes less time for **soft rock** to wear away. An example is clay.
	**transportation**	The movement of material by water wind or ice.	The material was transported downstream by the river. The material was transported along the beach by the waves.

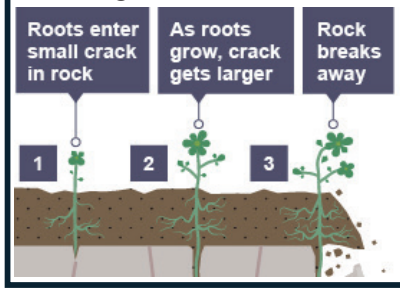
Geography | Are UK coastlines under threat? | Knowledge Organiser

Coastlines are constantly changing due to ongoing erosion. 3



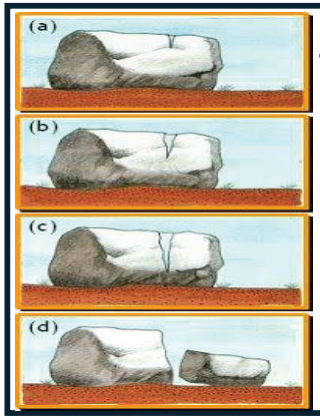
Chemical weathering happens to some rock types that react to acid rain. New, soluble substances are formed and wash away, leaving weathered rock. 2

Biological weathering is the action of animals and plants eroding the land. 2



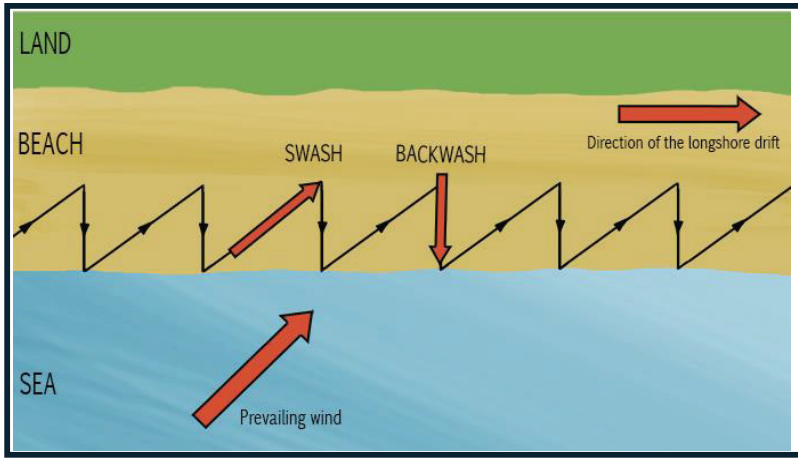
As a Year 8 Geographer, I know…	
1. Why coastlines are important.	
2. Geographical processes that shape the coastline.	
3. Why coastlines change overtime.	
4. How to manage coastal erosion.	

Approximately 3 million people in the UK live along the coastline. Some of the job opportunities include… 1



An example of mechanical weathering is freeze-thaw: 2

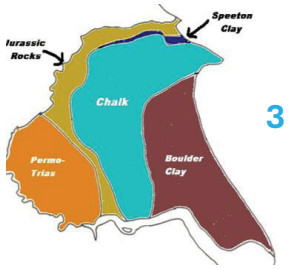
1) Precipitation (rain) enters a crack in a rock
2) The rainwater freezes overnight as temperatures cool
3) As the water turns to ice, it expands, enlarging the crack.
4) The ice melts away, leaving a larger crack in the rock.
5) This process repeats until the rock fully cracks open.



Once sediment is **eroded** off the coastline, it is **transported** along the beach by **longshore drift**. Here, the waves pick up the sediment and in a zigzag motion, carry it down the coastline. Eventually, the sediment will be **deposited** as the waves lose energy. 3

In attempt to prevent coastal erosion, coastal defences have been set up along the Holderness. 4

Hard engineering	Soft engineering
• Sea wall • Groyne • Rock armour	• Beach nourishment • Cliff regrading



3

Much of the Holderness Coastline is made up of Bolder Clay, which is a soft rock. Therefore people who live along the Holderness Coast are at risk of losing their homes/ land to coastal erosion.

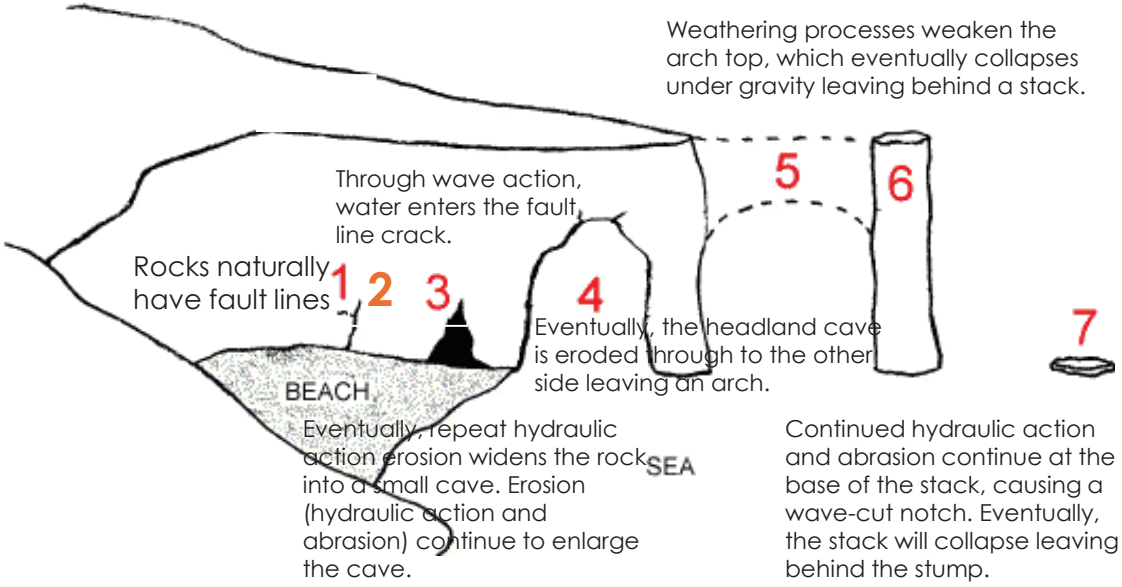
Geography | Are UK coastlines under threat? | Skills guide

Sketching in Geography

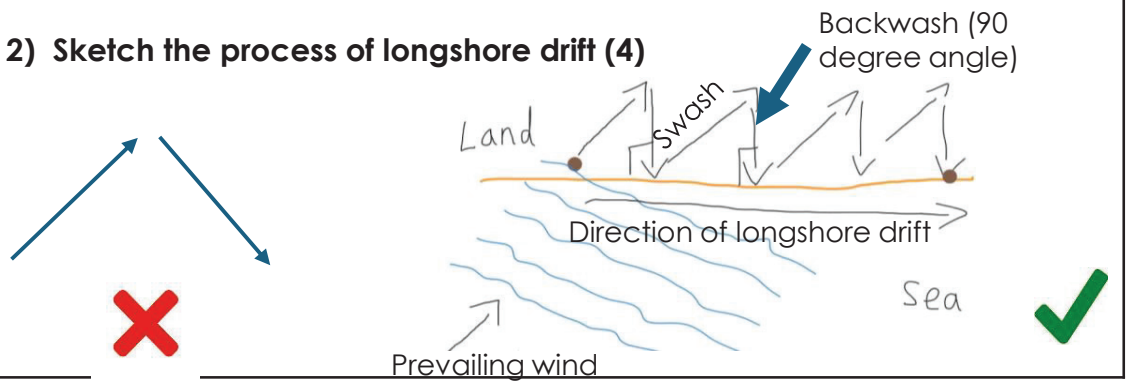
3

It is vital to always include annotations to your sketches to demonstrate and understanding of the physical geography theory.

1) Sketch the formation of a stump (6)



2) Sketch the process of longshore drift (4)



Potential 9-mark command words.

Image	Command words	What you need to do
	**Assess**	Make an informed judgement. Present both sides of an argument and use evidence to make your judgement.
	**Discuss**	Present key points about different ideas or strengths and weaknesses of an idea.
	**Evaluate**	Judge from available evidence. Present both sides of an argument and use evidence to make your judgement.
	**Explain**	Set out purposes or reasons/ Say why something happens.
	**Justify**	Support a case with evidence.
	**To what extent**	Judge the importance or success of something (strategy, scheme, project).

French | Lifestyle and Wellbeing | Topic Dictionary

Image	Key Word	Definition	In a Sentence
	**faire du patin à glace**	do ice skating	J'aime **faire du patin a glace** avec mes amis.
	**faire de la cuisine**	do cooking	Je déteste **faire de la cuisine.**
	**faire de la danse**	do dancing	Normalement je préfère **faire de la danse.**
	**faire de la gymnastique**	do gymnastics	Je n'aime pas **faire de la gymnastique.**
	**faire de l'athlétisme**	do athletics	J'adore **faire de l'athlétisme** pendant le week-end.
	**faire de l'équitation**	do horseriding	J'adore **faire de l'équitation** pour s'amuser.
	**faire des randonées**	do hiking	Je préfère **faire des randonées** comme l'exercise.
	**faire du ski**	do skiing	J'aime **faire du ski** avec ma famille.
	**faire du vélo**	do cycling	Chaque semaine j'aime **faire du vélo.**
	**faire du théâtre**	do drama	Tous les jours j'adore **faire du théatre.**

French | Lifestyle and Wellbeing | Topic Dictionary

Image	Key Word	Definition	In a Sentence
	**jouer au basket**	do basketball	Dans ma temps libre, j'aime **jouer au basket.**
	**jouer au foot**	play football	J'adore **jouer au foot** avec ma meilleure amie.
	**jouer au hockey**	play hockey	Le soir, j'adore **jouer au hockey.**
	**jouer au rugby**	play rugby	J'aime **jouer au rugby** parce que c'est facile.
	**jouer au tennis**	play tennis	J'adore **jouer au tennis** mais c'est difficile.
	**jouer aux cartes**	play cards	Tous les jours, ma mère aime **jouer aux cartes.**
	**jouer aux échecs**	play chess	Tous les soirs, mon frère aime **jouer aux échecs.**

French | Lifestyle and Wellbeing | Knowledge Organiser

Check for knowledge:

- ❑ I can say what I and others do (step 1)
- ❑ I can describe my daily routine (Step 2)
- ❑ I can give opinions on different hobbies and activities (step 3)
- ❑ I can use future tense (step 4)

Step 1: Saying what hobbies you do

j'énvoie des sms	*I send texts*	**je fais de la danse**	*I dance*
je fais du sport	*I do sport*	**je fais de l'athletisme**	*I do athletics*
je reste chez moi	*I rest at home*	**je prends des photos**	*I take photos*
je regarde des films	*I watch films*	**j'écoute de la musique**	*I listen to music*
je joue au tennis	*I play tennis*	**tous les jours**	*Every day*
je joue a l'ordinateur	*I play on the computer*	**chaque semaine**	*Every week*
je joue au rugby	*I play rugby*	**de temps en temps**	*From time to time*

Step 2: Giving opinions on hobbies

Je pense que		*I think that*	
Je dirais que		*I would say that*	
À mon avis		*In my opinion*	
c'est		*it is…*	
divertissant	*entertaining*	**intéressant**	*interesting*
ennuyeux	*boring*	**barbant**	*boring*
amusant	*fun*	**passionant**	*exciting*
relaxant	*relaxing*	**fantastique**	*fantastic*
affreux	*awful*	**nul**	*rubbish*
difficile	*difficult*	**palpitant**	*exciting*

Step 3: Describing your daily routine

Je me réveille	*I get up*	**Je mange le petit-déjeuner**	*I eat breakfast*
Je me douche	*I shower*	**Je fais mes devoirs**	*I do my HW*
Je m'habille	*I get dressed*	**Je vais à l'école**	*I go to school*
Je me brosse les dents	*I brush my teeth*	**Je mange le dîner**	*I eat dinner*
Le matin	*In the morning*	**À une heure**	*At 1 o'clock*
L'après-midi	*In the afternoon*	**À deux heures**	*At 2 o'clock*
Le soir	*In the evening*	**À trois heures**	*At 3 o'clock*

Step 4: Describing future plans

La semaine prochaine	*Next week*
Le lendemain	*Tomorrow*
L'année prochaine	*Next year*
je vais + infinitive	*I'm going to...*
on va + infinitive	*we're going to...*
sortir avec mes amis	*go out with friends*
aller au cinéma	*go to the cinema*
avoir une soirée	have a party
faire de la natation	go swimming

French | Lifestyle and Wellbeing | Skills Guide

Have you used...

A time marker?	A verb?	An activity?	A connective?	A opinion phrase?	An intensifier?	A reason?
Normalement (Normally) **Une fois par semaine** (Once a week) **Deux fois par semaine** (Twice a week) **Tous les jours** (Every day) **Tous les matins** (Every morning) **Tous les après-midis** (Every afternoon) **Tous les soirs** (Every evening) **Toujours** (Always) **Souvent** (Often) **De temps en temps** (From time to time)	**je fais** (I do) **il / elle fait** (he/she does) **ils / elles font** (they do)	**de l'équitation** (horse-riding) **de l'athlétisme** (athletics) **de la natation** (swimming) **de la voile** (sailing) **de la gymnastique** (gymnastics) **du ski** (ski) **du ballet** (ballet) **du cyclisme** (cycling) **du patin** (skating) **du yoga** (yoga) **du judo** (judo) **du surf** (surfing)	**parce que** (because) **car** (because) **mais** (but) **cependant** (however) **et** (and)	**selon moi** (in my opinion) **selon lui / elle** (in his / her opinion) **selon eux / elles** (in their opinion) **je pense que** (I think that) **il / elle pense que** (he/she thinks that) **ils / elles pensent que** (they think that) **je trouve que** (I think that) **il / elle trouve que** (he/she thinks that) **ils / elles trouvent que** (they think that) **je dirais que** (I would say that) **il / elle dirait que** (he / she would say that)	**très** (very) **un peu** (a bit) **assez** (quite) **trop** (too) **vraiment** (really)	**facile** (easy) **intéressant** (interesting) **génial** (great) **amusant** (fun) **relaxant** (relaxing) **palpitant** (exciting) **mauvais** (bad) **difficile** (difficult) **barbant** (boring) **dangereux** (dangerous) **fatigant** (tiring)
	je joue (I play) **il / elle joue** (he/she plays) **ils / elles jouent** (they play)	**au football** (football) **au volley** (volleyball) **au golf** (golf) **au basket** (basketball) **au cricket** (cricket) **au tennis** (tennis) **au badminton** (badminton) **au hockey** (hockey) **au rugby** (rugby)		**c'est** (it is) **ce n'est pas** (it isn't)		

Example: Normalement,je fais de l'équitation car selon moi c'est vraiment génial.

(Normally, I do horse-riding because according to me it is really great.)

French | Lifestyle and Wellbeing | Skills Guide

Success Criteria:

Have you **introduced yourself**?

- ❑ Can you describe **what** you like?
- ❑ **Why** do you like the sport?
- ❑ Can you describe your **dislikes?** Have you used a variety of **adjectives?** Could you add an **intensifier**?
- ❑ Can you describe **your friend's hobbies?** Have you included a range of **opinion phrases?**
- ❑ Can you include where you **would like** to do next weekend? Have you used any **complex structures?**

Simple answer:

Je m'appelle Léo. Je joue au volleyball et je fais de l'athlétisme. J'adore aussi les arts martiaux et tous les weekends, j'aime faire du judo avec mes amis.

Connectives used to link ideas

Variety of **adjectives**

Intensifiers used to add detail

Extended answer:

Je m'appelle Léo. Je suis assez sportif! En hiver, j'adore faire du ski, mais je n'aime pas faire du patin à glace parce que c'est trop difficile. J'ai une amie qui s'appelle Valentine. Elle joue souvent aux échecs et elle adore télécharger des chansons, surtout le hard rock! Cependant, elle déteste regarder la télé parce que selon elle c'est assez ennuyeux.

Fancy phrase used to upgrade answer.

French | Environmental problems | Topic Dictionary

Image	Key Word	Definition	In a Sentence
	l'environnement	the environment	Je m'inquiète beaucoup pour **l'environnement.**
	le climat	the climate	**Le climat** est touché par la circulation.
	la planète / la terre	the planet /the earth	**La planète** est en danger.
	la pollution	the pollution	Il faut organiser des manifestations contre **la pollution**.
	la circulation	the traffic	L'environnement est menacé par **la circulation.**
	la sécheresse	the drought	**La sécheresse** est le problème le plus important.
	les déchets / les ordures	the rubbish	On doit jeter **les déchets / les ordures** dans la poubelle.
	les inondations	the flooding	Dans mon pays, il y a beaucoup d' **inondations.**
	le changement climatique	the climate change	Comment s'organiser face au **changement climatique**?
	le réchauffement de la planète	the global warming	On peut arrêter **le réchauffement de la planète.**
	les animaux en danger	the animals in danger	Partout dans le monde **les animaux sont en danger** de disparition.

French | Solutions | Topic Dictionary

Image	Key Word	Definition	In a Sentence
	pour aider la planète	to help the planet	**Pour aider la planète**, on doit recycler plus.
	c'est nécessaire de reduire la pollution	It is necessary to reduce pollution	Pour sauver la planète, **c'est nécessaire de reduire la pollution.**
	je recycle plus	I recycle more	En ce moment, **Je recycle plus** et surtout le plastique.
	je trie mes déchets	I sort my rubbish	Tous les jours, **je trie mes déchets** pour sauver la planète.
	je protège la planète	I protect the planet	**Je protège la planète** en étant végétarien.
	je réutilise les sacs en plastique	I reuse plastic bags	Je protège la planète car **je réutilise les sacs en plastique.**
	j'achète des produits verts	I buy green products	Ma famille et moi, on **achète** toujours **des produits verts**.
	j'utilise les transports en commun	I use public transport	Pour aller au collège, **j'utilise les transports en commun**.
	je marche plus souvent	I walk more often	**Je marche plus souvent** pour réduire la pollution.
	je fais du bénévolat	I volunteer	Pour aider les gens, **je fais du benevolat.**

French | Environmental and Social Issues | KO

Check for knowledge:

- ❑ I can say what worries me (Steps 1+4)
- ❑ I can talk about problems and give solutions (Steps 1-4)
- ❑ I can give justified opinions (Step 1-4)
- ❑ I can use a range of time markers (Step 4)

Step 1: Say what worries you

Le plus grand problème		The biggest problem	
Ce qui m'inquiète		What worries me	
Maintenant, j'utilise / je fais / je vais		Now, I use / I do / I go	
Il y a des déchets partout		*There are rubbish everywhere*	
Les effets du changement climatique		*The* effects of climate change	
Les gens pensent que	*People think that*	**La destruction**	destruction
Lutter contre	Fight against	**La menace**	threat
Le recyclage	rcycling	**S'organiser**	To get organised
La protéction	protection	**En étant**	*By being*

Step 2: Talk about social issues

J'aide		I help	
Il faut aider		You must help	
Les gens	*people*	**Les sans abris**	*homeless*
La faim	*hunger*	**Le / la bénévole**	*volunteer*
La guerre	*war*	**Au chômage**	*unemployed*
La violence	*violence*	**La société**	*society*

Step 3: Giving solutions

Je fais beaucoup pour	*I do a lot to*
Pour sauver la planète	*To save the planet*
Pour protéger l'environnement	*To protect the environment*
On peut changer le monde	*We can change the world*
On peut améliorer la situation	*We can improve the situation*
Organiser des manifestations	*To organise protests*
Je fais de mon mieux	*I do my best*
J'ai l'intention de	*I intend to*

Step 4: Elevate your sentences with time markers

Maintenant	now
En ce moment	Right now.
Tous les jours	Every day
Pendant le weekend	At the weekend
La semaine dernière	Last week
L'année dernière	Last year
Récemment	recently
A l'avenir	In the future

French | Environment | KO

Have you used?

1. a time marker?	2 . a sentence starter?		3. a noun?	4. a connective?	5. reason?	6. a negative form?	7. a solution?	
En ce moment (At the moment) **Actuellement** (At the moment) **De nos jours** (Nowadays)	**le problème le plus important** (the most important problem)	**c'est** (is)	**la pollution** (pollution) **la circulation** (traffic) **les sacs en plastique** (plastic bags) **les papiers dans la rue** (papers on the street) **les déchets** (rubbish)	**car** (because) **parce qu'** (because) **puisqu'** (because / since) **étant donné qu'** (because)	**il y a (there is)** **trop de voitures dans la rue** (too many cars in the street) **trop de pollution dans les océans à cause du plastique.** (too much pollution in the oceans because of the plastic)	**il n'y a pas (assez) de (there isn't) (enough)** **centres de recyclage** (recycling centres) **poubelles** (bins) **transports en commun** (public transports)	**On doit** (we must) **On devrait** (we should) **On peut** (we can) **On pourrait** (we could) **Il faut** (you must) **Il faudrait** (you should)	**recycler plus.** (recycle(d) more) **utiliser les transports en commun.** (use(d) public transports) **marcher plus souvent.** (walk(ed) more often) **construire plus de centres de recyclage.** (build (built) more recycling centres) **utiliser plus de sacs pour la vie** (use(d) bags for life) **avoir plus de poubelles dans les rues** (have (had) more bins in the streets)
Past tense **Quand j'étais petite** (When I was little) **Quand j'étais jeune** (When I was young) **Quand j'avais 10 ans** (When I was 10)		**c'était** (was)			**il y avait (there was)** **trop de voitures dans la rue** (too many cars in the street) **trop de pollution dans les océans à cause du plastique.** (too much pollution in the oceans because of the plastic)	**il n'y avait pas (assez) de (there wasn't) (enough)** **centres de recyclage** (recycling centres) **poubelles** (bins) **transports en commun** (public transports)	**On aurait dû** (we should have) **On aurait pu** (we could have) **Il aurait fallu** (we should have)	

Example: En ce moment, le probleme le plus important c'est la circulation car il y a beacoup de voitures. On devrait marcher plus. Souvent.

(At the moment, the biggest problem is traffic because there are too many cars. We should walk more often.

French | Environment | Skills Guide

Success Criteria:

- ❑ Can you talk about environmental problems?
- ❑ Can you give **opinions** and **reasons** about **the environment?** Have you used the correct **word order** and **adjective endings**?
- ❑ Can you suggest **solutions**? Can you use justified opinions?
- ❑ Can you add another tense and time markers? Could you add an **intensifier**?

Simple answer:

Je m'intéresse beaucoup à l'environnement et j'adore aussi la nature. Dans ma ville, il y a beaucoup de pollution. J'essaie de recycler les déchets et j'utilise les transports publics. Je pense qu'on doit recycler plus.

Connectives used to link ideas

Intensifiers used to add detail

Fancy phrases to elevate your work

Time marker

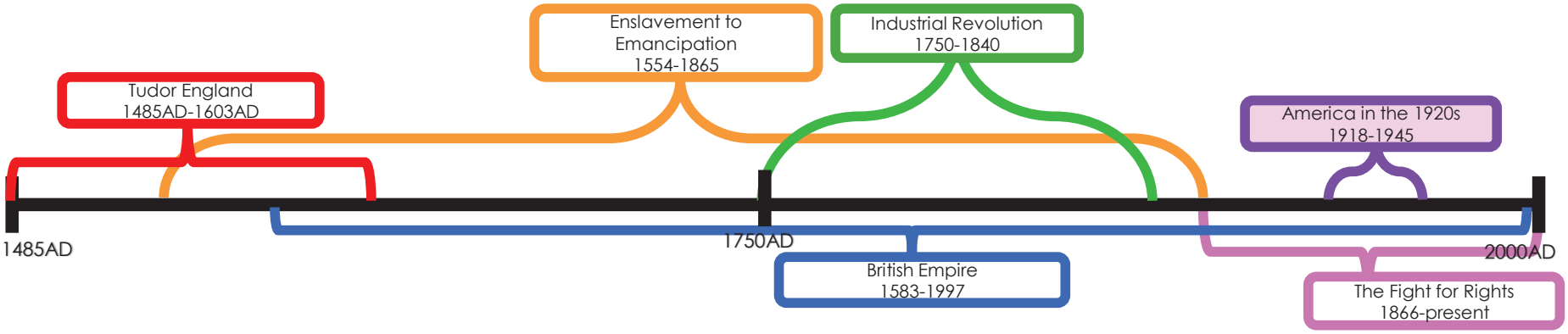
Opinion phrases used to upgrade answer.

Extended answer:

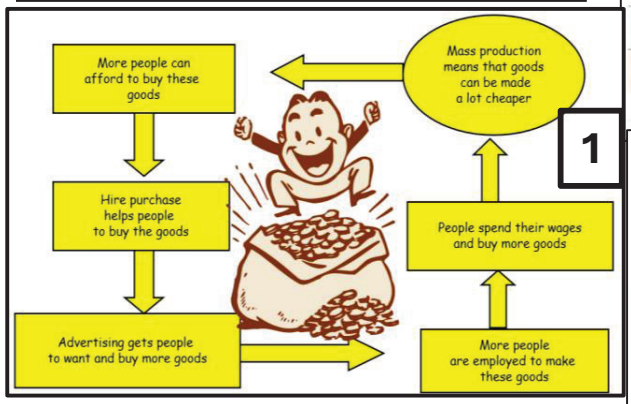
Je m'intéresse beaucoup à l'environnement et j'adore aussi a nature. Je dirais que dans ma ville, il y a beaucoup de pollution. A mon avis, protéger l'environnement est très important. J'essaie de recycler, quand je peux, les déchets, le verre et le plastique et en plus, j'utilise les transports publics. Chaque personne doit faire un effort pour sauver la planète. A l'avenir j'ai l'intention de faire du bénévolat pour une association qui aide les personnes qui vivent dans la rue.

History | Did all people enjoy 1920s America? | Topic Dictionary

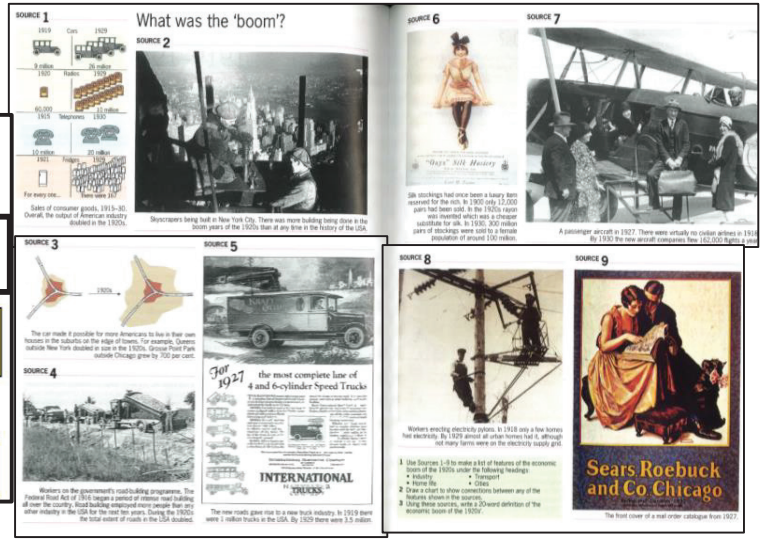
Image	Key Word	Definition	In a sentence…
	**Economic Boom**	When a country experiences high sales, increased wages and low unemployment.	During the 1920s, America experienced an 'economic boom'.
	**Roaring**	(of a period of time) Characterized by prosperity, optimism, and excitement.	The 1920s in America were also known as the Roaring 20s.
	**Flappers**	(in the 1920s) A fashionable young woman intent on enjoying herself and flouting conventional standards of behaviour.	The police arrested a number of Flappers.
	**Prohibition**	The prevention by law of the manufacture and sale of alcohol, especially in the US between 1920 and 1933.	Prohibition led to more crime and less jobs.
	**Gangster**	A member of a gang or violent criminal organisation.	Al Capone was a very famous gangster from 1920s America
	**Depression**	When there is a lack of jobs but increasing prices, money becomes worth a lot less.	The Great Depression caused lots of people to lose money and possessions.
	**Racism**	The belief that different races possess distinct characteristics, abilities, or qualities, especially so as to distinguish them as inferior or superior to one another.	Racism was very common in 1920s America and still effects American society to this day.



History | Did all people enjoy 1920s America? | Knowledge Organiser



1

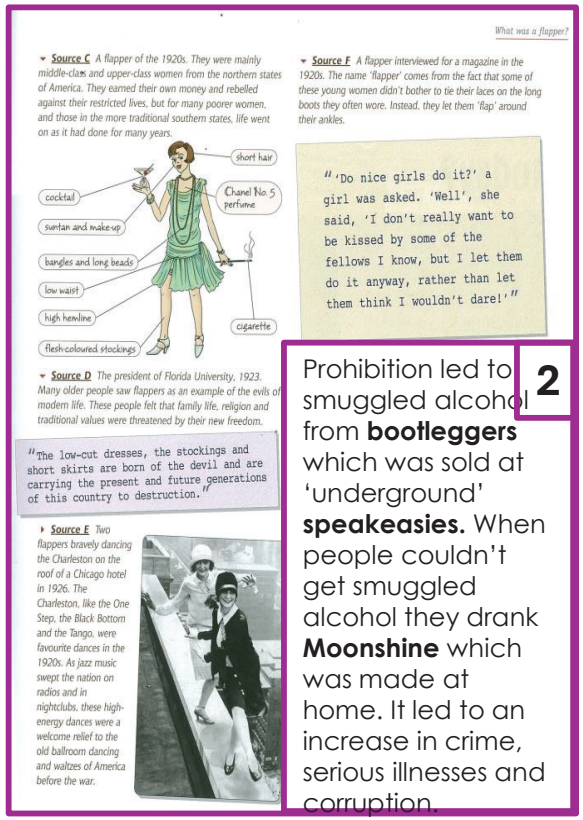


4

- Great Depression
- 9000 Banks Closed
- 23% Unemployment
- Farmers lost land
- Homelessness
- Loss of confidence
- The Dust Bowl

As a Y8 Historian, I know…

1. What were the Roaring 20s? Why did they happen and what did they look like?	
2. How did American culture change in the 1920s?	
3. What caused the Wall Street Crash?	
4. What were the impacts of the Great Depression?	
5. What was the New Deal and how did it help?	



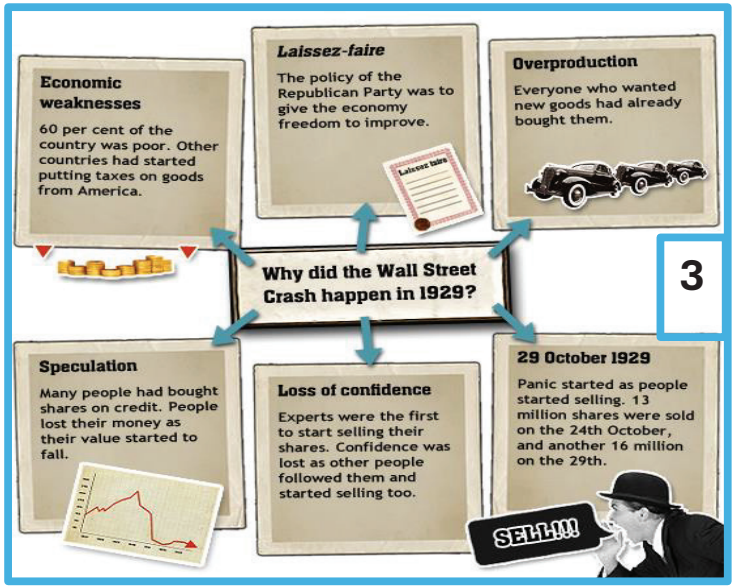
2

Prohibition led to smuggled alcohol from **bootleggers** which was sold at 'underground' **speakeasies.** When people couldn't get smuggled alcohol they drank **Moonshine** which was made at home. It led to an increase in crime, serious illnesses and corruption.

President Roosevelt introduced policies to help save the US Economy, the first 3:

5

Problem	Measure	Action	Impact
Americans had lost confidence in the banking system.	**1933 Emergency Banking Act**	Roosevelt temporarily closed all banks to inspect them, and only the well-managed and stable banks were allowed to reopen.	People's confidence in the banking system was restored. People began putting their money back in banks. Banks could lend money to businesses again.
The government needed money to fund the New Deal.	**1933 Economy Act**	All government employees' pay was cut by 15 per cent.	Almost $1 billion was saved.
Prohibition was unpopular and fuelling organised crime.	**1933 Beer and Wine Revenue Act**	Prohibition was ended.	Organised crime began to decline. Selling alcohol meant it could be taxed to raise money.



3

History Source Skills Guide - Judgement

In History you may need to make a judgement on what your own opinion is in relation to a specific question. These will often ask **'How far do you agree?'**

To come to a well-rounded judgement which is convincing, you must use evidence to support your point.

'The Roaring 20s in the USA were ruined by the Great Depression' How far do you agree?

- Answer the question using your own opinion.
- Use evidence from your lessons.

Point

Evidence

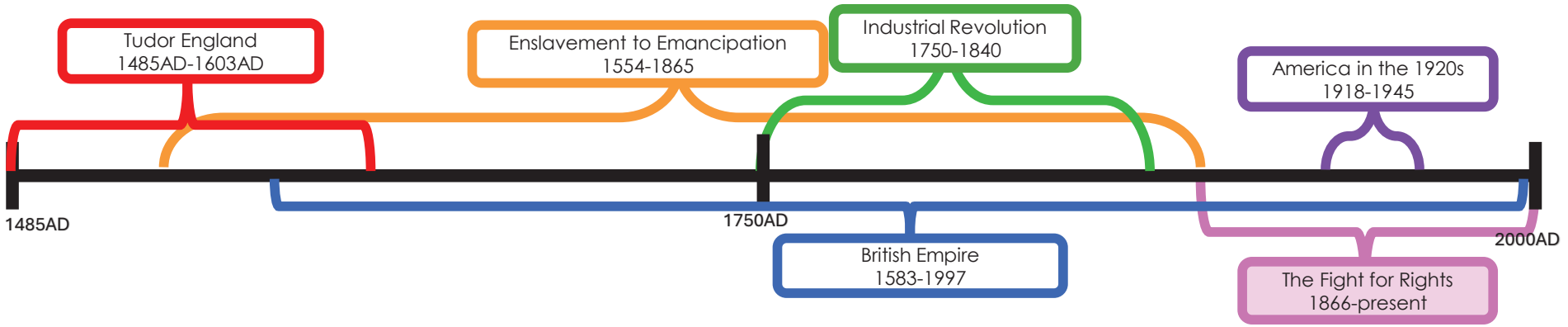
Explain

Link

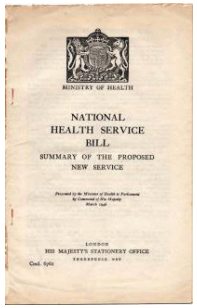
The Roaring 20s in the USA was a time of excitement, new inventions, and economic growth, but the Great Depression changed everything. In the 1920s, many people enjoyed better jobs, new music, and inventions like cars and radios. However, the Great Depression, which began in 1929, caused widespread unemployment, poverty, and financial loss for many families. Despite this, some of the changes from the 1920s, such as technological advancements and cultural shifts, continued to shape American society even after the Depression. While the Great Depression did overshadow the prosperity of the Roaring 20s, it did not completely erase the positive impacts of the decade.

History | How did the 'fight for rights' develop in the 20th Century? | Topic Dictionary

Image	Key Word	Definition	In a sentence…
	**Suffrage**	Having the right to vote within the democracy that you live.	In the 19th and 20th centuries women fought for female suffrage.
	**Equality**	All people being treated the same regardless of the way they identify.	We have still not achieved complete equality in society.
	**Society**	The community of people living in the same area, country with shared laws, customs and organization.	We live in a society.
	**Strikes**	A refusal to work as a form of protest against a perceived injustice.	The factory workers voted for a strike.
	**Migrant**	A person who moves from one placed to another in order to find better work or opportunities.	The Windrush transported lots of Caribbean migrants.
	**Riot**	A violent event wherein a group of people decide to push violently against law and order	The students of London started to riot.
	**Uprising**	An act of resistance that occurs when a group of people resist injustice	The people staged an uprising.
	**Feminist**	Someone who believes people should be treated equally, regardless of gender	There are lots of different types of Feminism
	**Significant**	Important or impactful, possibly because it was talked about at the time (remarkable) or later (remembered)	World War 2 was a significant part of modern history



History | How did the 'fight for rights' develop in the 20th Century? | Knowledge Organiser



Women's Suffrage Movement

World War 1

World War 2

Feminism Movement

Pre-1900-1928

1914-1918

1939-1945

1948-1971

1960 – Present Day

1900

1981

The NHS Act - 1946

Education Act - 1944

Dagenham Strike - 1968

First Caribbean Carnival in London - 1959

West Indian Gazette

The Notting Hill Riots - 1958

The Grunwick Strike – 1976-78

The Sex Discrimination Act - 1975

Equal Pay Act - 1975

Windrush Arrives – 1948

The British Nationality Act - 1948

Windrush Generation

Bristol Bus Boycott - 1963

'River of Blood' Speech - 1968

Mangrove 9 - 1970

First outdoor Caribbean Carnival - 1966

Brixton Riots/Uprising - 1981

Key:

- Important Event
- Important Period
- Women Developments
- Important Period: Women
- Black-British Developments
- Important Period: Black-British

As a Y8 Historian, I know…	
How the fight for rights developed during the 20th century for women.	
How the fight for rights developed during the 20th century for black-British people.	

History Skills Guide – Cause and Consequence

Historians use the term 'causes' – or reasons – to describe the **things that made events happen**.
When historians try to work out **different causes** of historical events, they need to be able to **justify** why they think **one cause (or reason) is more important than another.**

"The 'fight for rights' developed because of the actions of people" – How far do you agree?

1. Plan
Study the statement. Do you agree or disagree with it? What do you know about the topic? What other causes led to the event?

2. Judge
Decide which cause you think was the most important one. List the reasons for your choice.

3. Answer
Make sure you respond directly to the statement- do you disagree, slightly agree, or strongly agree?

4. Explain
Add details to support your response and explain your view. Use your plan to help you add detail, and refer to the other causes. You might even be able to link them!

5. Conclude
Write a concluding sentence, stating your overall view clearly.

Black-British Rights

- Windrush arrives
- British Nationality Act.
- Bristol Bus Boycott.
- Notting Hill Riots.
- Caribbean Carnival.
- Mangrove 9
- Brixton Uprising

Women's Rights

- Suffragettes.
- Education Act.
- NHS Act.
- Dagenham Strikes.
- Feminism.
- Grunwick Strikes
- Sex Discrimination Act
- Equal Pay Act

The 'fight for rights' developed largely because of the actions of people who stood up for change. However, other factors, such as laws, governments, and economic changes, also played an important role.

People have always fought for their rights, and their actions have often been the driving force behind change. Protests, campaigns, and movements have pressured governments and societies to improve rights for different groups.

One clear example of people driving change is the Bristol Bus Boycott. People refused to use buses in a peaceful protest. This forced the government to make changes to the law and companies weren't allowed to ban black conductors.

While people's actions were key, other factors helped the fight for rights. Governments sometimes changed laws because of pressure from elsewhere. For example, the Equal Pay Act which aimed to give women equal pay in the workplace.

In conclusion, the fight for rights developed mainly because of the actions of people who challenged unfair systems. However, these actions were often supported by other factors, such as changes in law, international pressure, and social attitudes. Without people standing up for change, rights might not have developed as quickly, but other influences also played a part.

IT | Webpages | Topic Dictionary

Keyword	Definition	In a sentence
<b>	Defines bold text	Signifies text that should appear **bold** on the webpage.
Background-color	Defines the background color for an HTML element	CSS background-color property was used to change the background colour to a colour where the text can be easily read on.
<body>	Contains all the content of an HTML document	Anything to output on the web page must be inside the **body** tags.
CSS	Cascading style Sheets; used for the stye and layout of the webpage.	We use **CSS** to set the size and font of a text, position text on the page, specify colour of text and other layouts.
** **	Defines a division or section in a HTML document	The ** ** tag is used as a container for HTML elements - which can then be styled using CSS.
Font-size	Specifies the size of the font	**Font:size**:12 , sets the size of the font to 12
Font-style	The font-style property specifies the font style for a text	**Font-style: italic** , emphasizes text by changing the text to italic format
Font-weight	Specifies how thick or thin characters in text should be displayed.	**Font-weight:bold** , changes the text to be thicker so it is bold on the webpage.
<h1> to <h6>	Defines HTML headings	**<Header>** tags are a container for introductory content or a set of navigational links.
HTML	Hypertext Markup Language; The building blocks of a webpage	**HTML** instructs the web browser on how information should be displayed on the webpage.
<html>	Shows it is an HTML document	The <**html**> **tag is the container for all other HTML elements.**
HTML tags	Defines how your web browser must format and display your web page	**Tags** are always enclosed in angle brackets: < >.

IT | Webpages | Topic Dictionary

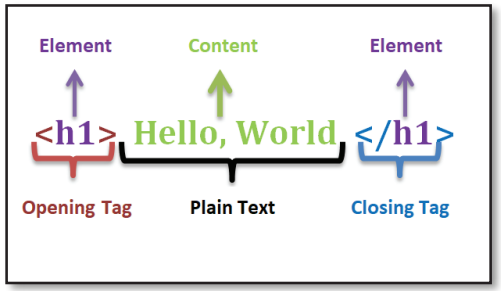
Keyword	Definition	In a sentence
<img>	Inserts an image into a webpage	An **<img>** element must have two attributes: src, which fetches the image from the specified source, and alt, which provides alternative text for the image if it is not displayed.
<p>	Defines a paragraph	The <p> HTML tag seperates text into blocks content in blocks represents blocks of text separated from adjacent blocks by blank lines.
<table>	Represents data in a table	The **<table>** tag represents information presented in a table consisting of rows and columns of cells containing data
<text>	Defines centre text	The ** ** tag is used to format text to the center of the line, horizontally.
Text-align	Sets the horizontal alignment of a text.	A **text-align** can be left or right, centered, or justified.
<title>	Defines the title for the document	The **<title>** tag defines the document's title that is shown in a browser's title bar or a page's tab.
<!--...-->	Defines a comment	**Comments** are not displayed in the browsers, but it helps users to understand what the code is doing.
<u>	Defines underline text	The **<u>** tag is used to underline text to make it more distinct to the other text..

IT | Webpages | Knowledge Organiser

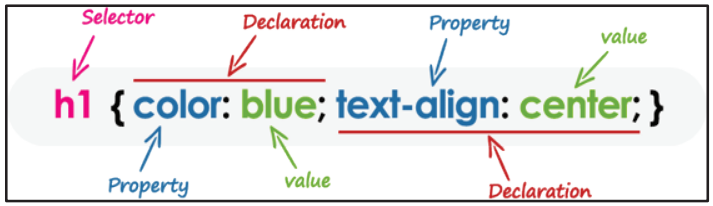
CSS uses {}

HTML uses <>

HTML



CSS



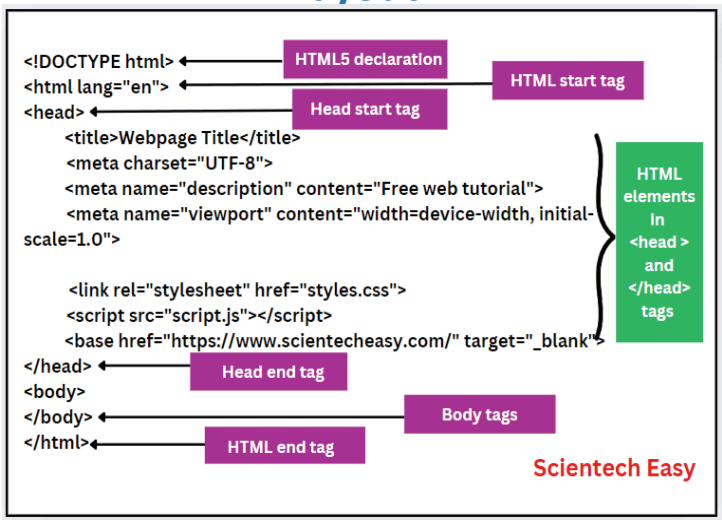
Images in HTML

```
<img src="tree.jpeg" style="width:500px;height:600px;">
```

This is the image.

This changes the size of the image.

HTML Layout



HTML Code

```
<!doctype html>
<html>
<head>
   <link rel="stylesheet" href="style.css">
</head>

<body>
  <h1>My Culture</h1>
  <p> This is a web page about my culture, created using HTML and
  <div>
  <img src="https://t3.ftcdn.net/jpg/01/70/53/70/360_F_170537083_g
  </div>
  <p> This is where it is located on a map.</p>
  </body>
</html>
```

Webpage

CSS Code

```
body {
  background-color: lightcyan;
}

h1 {
  color:steelblue;
  text-align: center;
}

p {
  color: slateblue;
  text-align: center;
  font-size: 20px;
  font-weight: bold;
  font-style: italic;
}

div {
  text-align: center;
}
```

Mental Wellbeing: What are the Risk Factors?

Year 8 Summer 1

Big Idea: Comfort
How do I look after myself?

What is Wellbeing?

Key learning points

- Wellbeing is the level of happiness you feel overall

- Some tips for improving wellbeing include, relaxing, do something you enjoy, and focus on the present

wellbeing

What are the Signs of Bad Wellbeing?

Key learning points

- Symptoms of bad wellbeing are low mood, mood changes, excessive sleeping or eating, not sleeping or eating enough, etc

- If a friend has bad wellbeing you should reach out to them and support them, and consider asking the school to help

symptom

What is Anxiety?

Key learning points

- Anxiety is a feeling or unease and nervousness, often accompanied by physical symptoms

- Methods of managing anxiety include learning the causes, breathing exercises, therapy and even medication

anxiety

What is Body Image?

Key learning points

- The image you have in your head about how you look

- Social media, TV, clothing designers, and jokes can cause negative body image

-Ways to improve it include doing self care routines, and removing bad influences

body image

What are Eating Disorders?

Key learning points

- Eating disorders are when a person uses food to cope with situations in their life

- They can generally be spotted by sudden weight changes

- The most common ones are anorexia, bulimia, pica, binge eating and avoidance

stress

What are Risk Factors?

Key learning points

- Risk factors are things that negatively affect something else

- Risk factors for mental health are low wellbeing, anxiety and eating disorders

risk factor

Lifeology | Mental Wellbeing: What are the Risk Factors? | Topic Dictionary

Image	Word*	Definition	In a sentence . . .
	**wellbeing**	The level of happiness you feel.	When we're looking after our **wellbeing**, our mental health is just as important as our physical health.
	symptom	A sign of something happening.	Having really itchy eyes in summer time is a **symptom** of hay fever.
	anxiety	A feeling of nervousness of worry, often with physical symptoms.	Thinking about sitting your GCSE exams might raise your **anxiety** levels.
	body image	The image you have in your head of how you look.	Your **body image** of yourself might not match up with the way other people see you.
	**stress**	Pressure to do something.	People feel **stress** for lots of reasons, like when they have to do something important for their future.
	risk factor	Something that increases the chances of something bad happening.	If you can identify every **risk factor** before doing something, you can keep yourself safe.

Key Lifeology words are in **bold*

Skills Guide: Lifeology Assessments

This is your chance to show off **as much of your knowledge as possible** from the **last five lessons**.

1. When the teacher instructs you, use **10 minutes** to **fill in the planning worksheet**. This is your chance to **look back through your book** and gather all the right answers. The sheet is for you to refer to during your assessment, so you don't need to use full sentences. The work only has to make sense to you! Look back at your **last assessment** and check the feedback here!

2. Complete the **assessment**. You will have **15 minutes** to produce a **piece of writing** to answer the question you've been studying for the last five weeks. Write like you're in an English lesson - **full sentences, proper spelling and grammar**, and **paragraphs**. Make sure to mention **as much as you can** from your **planning sheet**. The order you mention it in doesn't matter, **so long as it's all there**.

3. Use a **green pen** to **self-assess** your work. Compare the **assessment** you just did with the **success criteria** on the **feedback sheet**. Remember to **tick your work** wherever you're awarding a mark!

As a Year 8 Lifeology Student, I know...

By the end of Summer 1

1. Wellbeing is the level of happiness you feel and you can improve it by using relaxation techniques. ☐

2. We need to be on the lookout for symptoms of low wellbeing and help out our friends if they show them. ☐

3. One common sign of low wellbeing is anxiety, a feeling of fear or panic in a situation that isn't dangerous. ☐

4. Body image, or how you see yourself, can really have a negative impact on our wellbeing thanks to social media and TV. ☐

5. All this can lead to eating disorders, where people have an unhealthy relationship with the food they eat. ☐

6. To protect our mental wellbeing, we need to know all the risk factors and how to protect against them. ☐

What is Financial Capability?

Year 8 Summer 2

Big Idea: Comfort
How do I look after myself?

What is Budgeting?	What is Taxation?	What is National Insurance?	What are Benefits?	What are Student Loans?	What is Financial Capability?
Key learning points - Budgeting involves keeping track of the money you're making and the money you're spending - It's important because you tend to spend money on a daily basis but make money on a weekly or monthly one, so you need to plan so your money lasts long enough	**Key learning points** - Tax is when the government takes money from us and uses it to pay for public services - It's like a subscription fee that we pay for living in a society that keeps us healthy, happy and safe - Tax is fair because richer people pay more, and we all benefit from it	**Key learning points** - National Insurance is one particular tax that is used to pay for social wellbeing, like pensions and healthcare, rather than other services - It's important because it pays into our pensions, which we get when we retire, and can top up by contributing ourselves and asking our employers to match it	**Key learning points** - Everyone in the UK is entitled to benefits from the government because we all pay our taxes - These are used to make sure we can afford to survive and pay our bills if we fall on hard times and need some help - The main one is Universal Credit, which you can apply for at 18	**Key learning points** - Student loans are money you borrow from the government to pay for tuition and expenses while at university - Unlike regular loans from banks, you need to pay them in low amounts over a long time - Most people never have to pay the whole loan back	**Key learning points** - Fundamentally, financial capability involves understanding how to manage your money so you don't run out of it, and have enough left to save some along the way - It involves a combination of budgeting and help from the government when you need it
budgeting 	taxation 	income 	benefits 	public services 	bankrupt 

Lifeology | What is Financial Capability? | Topic Dictionary

Image	Word*	Definition	In a sentence . . .
	budgeting	Keeping track of the money coming in and going out, to make sure you have enough.	Some people don't realise that **budgeting** is actually a skill that they can get better at with time and practice.
	taxation	When the government takes money from people and uses it to pay for public services.	Without **taxation**, we wouldn't have a lot of the things that keep us healthy, happy and safe.
	income	The amount of money a person makes over an amount of time, usually a month or a year.	In general, having better qualifications means you can get a job with better **income**.
	benefits	Money that the government gives to people, to help them pay their bills.	Everyone in the United Kingdom is entitled to some **benefits** from their government - it's one good thing about living here.
	public services	Things the government provides to us, like healthcare and education.	We all pay for our **public services** with our taxes, which helps keep our country fair.
	bankrupt	Completely out of money.	If you're not good enough at financial planning and budgeting, you might end up **bankrupt**.

Key Lifeology words are in **bold*

Skills Guide: Lifeology Assessments

This is your chance to show off **as much of your knowledge as possible** from the **last five lessons**.

1. When the teacher instructs you, use **10 minutes** to **fill in the planning worksheet**. This is your chance to **look back through your book** and gather all the right answers. The sheet is for you to refer to during your assessment, so you don't need to use full sentences. The work only has to make sense to you! Look back at your **last assessment** and check the feedback here!

2. Complete the **assessment**. You will have **15 minutes** to produce a **piece of writing** to answer the question you've been studying for the last five weeks. Write like you're in an English lesson - **full sentences, proper spelling and grammar**, and **paragraphs**. Make sure to mention **as much as you can** from your **planning sheet**. The order you mention it in doesn't matter, **so long as it's all there**.

3. Use a **green pen** to **self-assess** your work. Compare the **assessment** you just did with the **success criteria** on the **feedback sheet**. Remember to **tick your work** wherever you're awarding a mark!

As a Year 8 Lifeology Student, I know...

By the end of Summer 2

1. Budgeting involves keeping track of the money we have coming in and the money we have going out. ☐

2. Some of our income is paid to the government in taxes, which help to keep us happy, healthy and safe. ☐

3. We also pay National Insurance, a specific tax that funds our healthcare and pensions when we retire. ☐

4. Our taxes entitle us to benefits, which is money the government gives us if we need help to feed ourselves and pay bills. ☐

5. They also entitle us to student loans that help us go to university and sometimes don't even have to be paid back. ☐

6. Financial capability is a great habit to get into at a young age because it will help you feel comfortable later on in life. ☐

Y8 Summer Term 1: Block 1 – Angles in Parallel Lines and Polygons

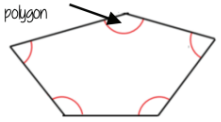
Previous Block: Number Sense

I can find the sum of interior and exterior angles in a polygon

Sum of interior angles

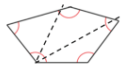
(number of sides – 2) x 180

Interior Angles
The angles enclosed by the polygon



This is an irregular polygon – the sides and angles are different sizes

Sum of the interior angles = (5 – 2) x 180

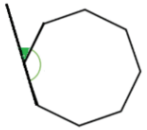


This shape can be made from three triangles
Each triangle has 180°

Sum of the interior angles = 3 x 180
= 540°

Remember this is all of the interior angles added together

Missing angles in regular polygons



Exterior angle = 360 ÷ 8 = 45°

Interior angle = $\frac{(8-2) \times 180}{8} = \frac{6 \times 180}{8} = 135°$

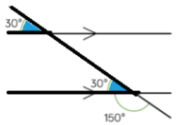
Exterior angles in regular polygons = 360° ÷ number of sides

Interior angles in regular polygons = $\frac{(\text{number of sides} - 2) \times 180}{\text{number of sides}}$

Next Block: Angles in Parallel Lines and Polygons

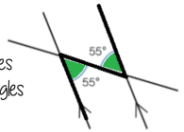
I can find angles in parallel lines

Alternate/ Corresponding angles

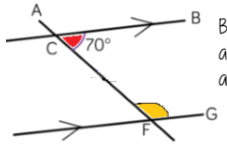


Because alternate angles are equal the highlighted angles are the same size

Because corresponding angles are equal the highlighted angles are the same size

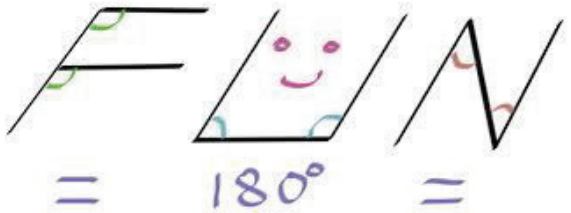


Co-interior angles



Because co-interior angles have a sum of 180° the highlighted angle is 110°

As angles on a line add up to 180° co-interior angles can also be calculated from applying alternate/ corresponding rules first



I can recall angle rules and notation

Basic angle rules and notation

Acute Angles
0°< angle <90°

Right Angles
90°

Right angle notation

Obtuse
90°< angle <180°

Reflex
180°< angle <360°

Straight Line
180°

Vertically opposite angles
Equal

Angles around a point
360 °

The letter in the middle is the angle
The arc represents the part of the angle

Angle Notation: three letters ABC
This is the angle at B = 113 °
Line Notation: two letters EC
The line that joins E to C

I can recall the key properties of quadrilaterals

Properties of Quadrilaterals

Square
All sides equal size
All angles 90°
Opposite sides are parallel

Rectangle
All angles 90°
Opposite sides are parallel

Rhombus
All sides equal size
Opposite angles are equal

Parallelogram
Opposite sides are parallel
Opposite angles are equal
Co-interior angles

Trapezium
One pair of parallel lines

Kite
No parallel lines
Equal lengths on top sides
Equal lengths on bottom sides
One pair of equal angles

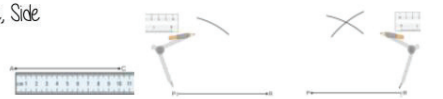
I can construct triangles

Triangles & Quadrilaterals

Side, Angle, Angle

Side, Angle, Side

Side, Side, Side

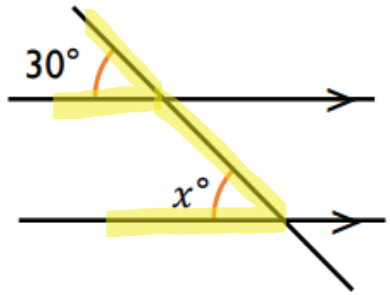


Maths | Angles in Parallel Lines and Polygons | Topic Dictionary

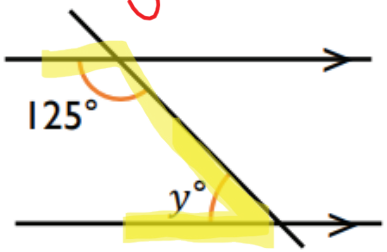
Key Word	Definition	In a sentence…
angle	The amount of rotation between two intersecting lines, measured in degrees.	The corner of your book forms a right **angle**, which is exactly 90 degrees.
isosceles	Two equal size lines and equal size angles (in a triangle or trapezium).	An **isosceles** triangle has two sides that are the same length, like the two equal sides of a slice of pizza.
parallel	straight lines that never meet.	The train tracks are **parallel**, which means they run in the same direction and will never meet, no matter how far they go.
polygon	A 2D shape made with straight lines.	A square is a type of **polygon** because it has four straight sides and four corners.
regular polygon	All the sides have equal length, all the interior angles have equal size.	A **regular polygon** has all its sides and angles equal, like a perfect equilateral triangle or square.
sum	Addition (total of all the interior angles added together).	The **sum** of 8 and 5 is 13, because when you add them together, you get 13.
transversal	A line that cuts across two or more other (normally parallel) lines	A **transversal** is a line that crosses two or more parallel lines, like a street crossing two parallel railroad tracks.

Maths | Angles in Parallel Lines and Polygons | Skills Guide

Work out the unknown angles.
Give reasons for your answers.

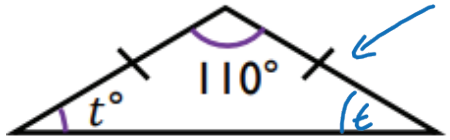


$x =$ 30 ° because corresponding angles are equal.



$y =$ 55 ° because co-interior angles add up to 180°

Work out the size of the angle marked t.



Isosceles triangle

$180 - 110 = 2t$
$70 = 2t$
$\div 2 \quad \div 2$
$35° = t$

Work out the sum of the interior angles of an octagon.

↳ inside
↳ 8 sided shape

Interior Sum Formula = $(n-2) \times 180$ (n = number of sides)

Interior Sum = $(8-2) \times 180$
$= 6 \times 180$
$= 1080°$

Y8 Summer Term 1: Block 2 – Area of Trapezia and Circles

Previous Block: Angles in Parallel Lines and Polygons

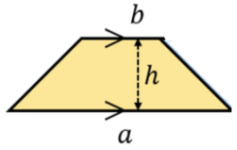
Next Block: Line Symmetry and reflection

I can find the area of trapeziums

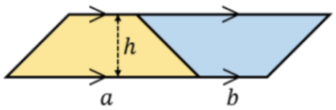
Area of a trapezium

Area of a trapezium

$$\frac{(a + b) \times h}{2}$$



Why?



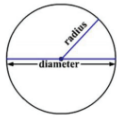
- Two congruent trapeziums make a parallelogram
- New length (a + b) x height
- Divide by 2 to find area of one

I can find the area of circles

Area of a circle (Non-Calculator)

Read the question – leave in terms of π or if $\pi \approx 3$ (provides an estimate for answers)

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



Diameter = 8cm
∴ Radius = 4cm

$\pi \times \text{radius}^2$
$= \pi \times 4^2$
$= \pi \times 16$
$= 16\pi \text{ cm}^2$

Find the area of one quarter of the circle

Radius = 4cm

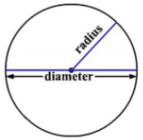
Circle Area = 16π cm²
Quarter = 4π cm²

Area of a circle (Calculator)

SHIFT ×10ˣ

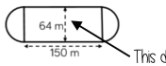
How to get π symbol on the calculator

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



It is important to round your answer suitably – to significant figures or decimal places. This will give you a decimal solution that will go on forever!

Spotting diameters and radii



This dimension is also the diameter of the semi circles

Don't need to halve this because there are 2 ends which make the whole circle

Arc lengths = $\pi \times 64$
$= 64\pi$

Arc lengths + Straight lengths = total perimeter

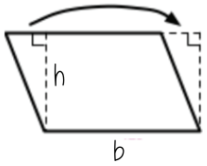
$= 64\pi + 150 + 150$
$= (300 + 64\pi)$ m
OR = 501.1 m

Still remember to split up the compound shape into smaller more manageable individual shapes first

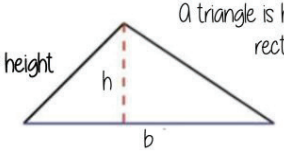
I can find the area of basic shapes

Rectangle
Base x Height

Parallelogram/ Rhombus
Base x Perpendicular height



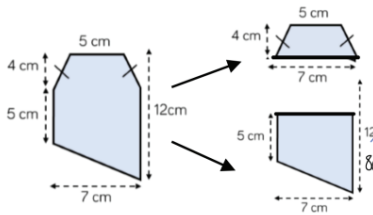
Triangle
½ x Base x Perpendicular height



A triangle is half the size of the rectangle it would fit in

I can find the area of compound shapes

To find the area compound shapes often need splitting into more manageable shapes first. Identify the shapes and missing sides etc. first.



Shape A - Isosceles trapezium

Shape B - nonstandard trapezium

Shape A + Shape B = total area

$$\frac{(5 + 7) \times 4}{2} + \frac{(5 + 8) \times 7}{2} = 24 + 45.5 = 69.5 \text{cm}^2$$

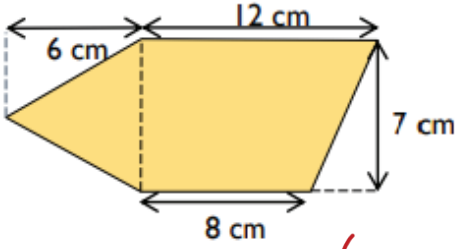
Units

Maths | Area of Trapezia and Circles | Topic Dictionary

Key Word	Definition	In a sentence…
area	Space inside a 2D object.	To find the **area** of a rectangle, you multiply the length by the width, like finding how much space a rug covers on the floor.
congruent	Two or more shapes that are exactly same in size and shape.	Two triangles are **congruent** if they have the same shape and size, even if they are turned or flipped.
formula	A mathematical relationship/ rule given in symbols.	To find the area of a triangle, you use the **formula**: Area = 1/2 × base × height
Infinity (∞)	A number without a given ending (too great to count to the end of the number).	**Infinity** is a number that never ends, like counting forever without stopping.
perimeter	Length around the outside of a 2D object.	To find the **perimeter** of a rectangle, you add up the lengths of all four sides.
perpendicular	At an angle of 90° to a given surface.	When two lines meet at a right angle, like the walls of a room, they are **perpendicular** to each other.
Pi (π)	The ratio of a circle's circumference to its diameter.	π is a special number, about 3.14, that helps you find the circumference of a circle when you multiply it by the circle's diameter.
sector	A part of the circle enclosed by two radii and an arc.	A **sector** is a part of a circle, like a pizza slice, where the edges are made by two radii and the curved part of the circle.

Maths | Area of Trapezia and Circles | Skills Guide

The pentagon is made up of a trapezium and a triangle. Work out the area of the pentagon.



Area of a trapezium:

$\frac{1}{2}(a+b) \times h$ → perpendicular height.

$= \frac{1}{2}(12+8) \times 7$

$= \frac{1}{2}(20) \times 7$

$= 70\text{ cm}^2$

Area of a Triangle:

$\frac{1}{2}(b \times h)$ $= \frac{1}{2}(42)$

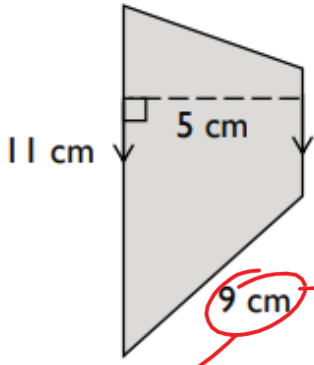
$= \frac{1}{2}(7 \times 6)$ $= 21\text{cm}^2$

Area of Pentagon:

$70 + 21$

$= 91\text{cm}^2$

Calculate the area of the trapezium.



not perpendicular height.

Area of a trapezium:

$\frac{1}{2}(a+b) \times h$

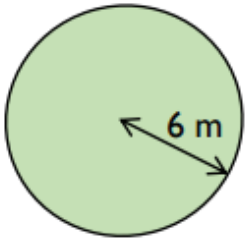
$= \frac{1}{2}(3+11) \times 5$

$= \frac{1}{2}(14) \times 5$

$= 7 \times 5$

$= 35\text{cm}^2$

Calculate the area of the circle to 1 decimal place.
Give units with your answer.



Area of a Circle:

πr^2

$= \pi(6)^2$

$= 36\pi$

$= 113.0973$

$= 113.1\text{m}^2$

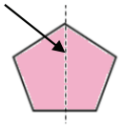
Y8 Summer Term 1: Block 3 – Line Symmetry and Reflection

Previous Block: Area of trapezia and circles

I can identify lines of symmetry

Lines of symmetry

Mirror line (line of reflection)



Shapes can have more than one line of symmetry.... This regular polygon (a regular pentagon has 5 lines of symmetry)

Rhombus
two lines of symmetry

Parallelogram
No lines of symmetry

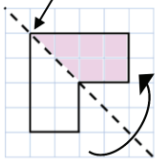
A circle has an infinite amount of lines of symmetry

Next Block: Data handling Cycle

I can reflect diagonally

Reflect Diagonally (1)

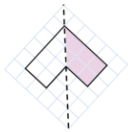
Points on the mirror line don't change position

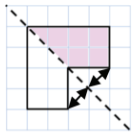


Fold along the line of symmetry to check the direction of the reflection

Turn your image

If you turn your image it becomes a vertical/ horizontal reflection (also good to check your answer this way)



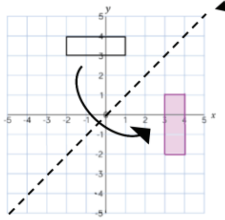


Drawing perpendicular lines

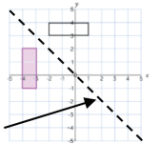
Perpendicular lines to and from the mirror line can help you to plot diagonal reflections

Reflect Diagonally (2)

This is the line y = x (every y coordinate is the same as the x coordinate along this line)



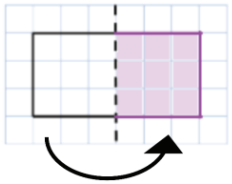
This is the line y = - x
The x and y coordinate have the same value but opposite sign



Turn your image

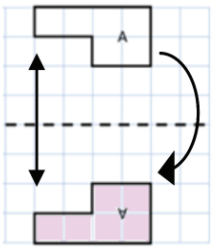
If you turn your image it becomes a vertical/ horizontal reflection (also good to check your answer this way)

I can reflect horizontally and vertically

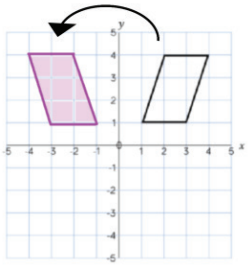


Note: a reflection doubles the area of the original shape

All points need to be the same distance away from the line of reflection



Reflection in the line y axis – this is also a reflection in the line x=0



Lines parallel to the x and y axis

REMEMBER

Lines parallel to the x-axis are y = ____

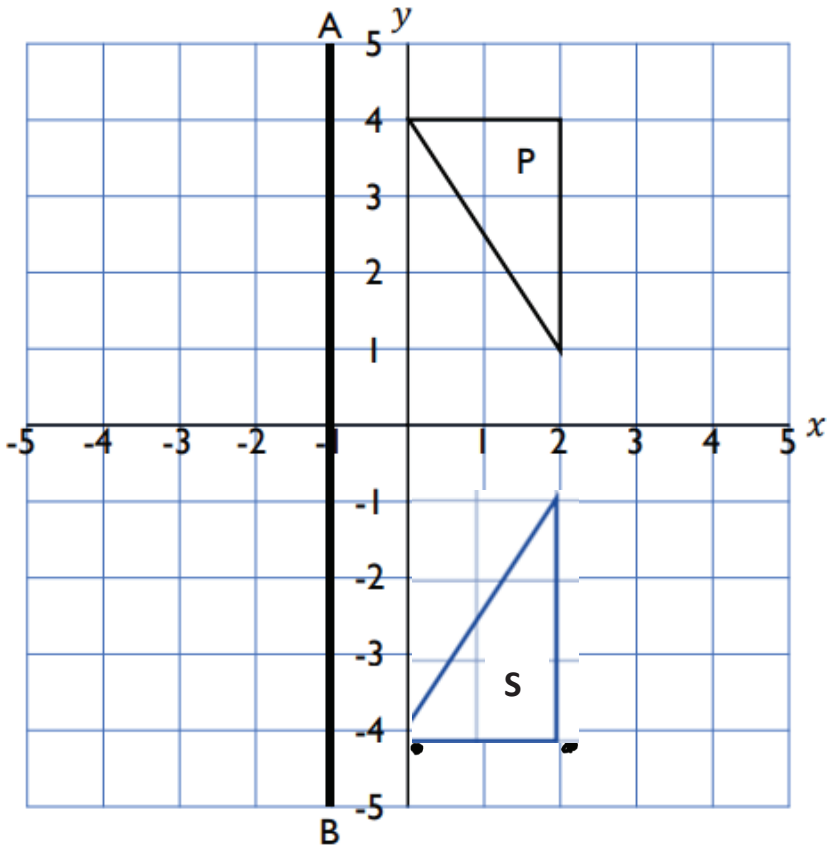
Lines parallel to the y-axis are x = ____

Maths | Line Symmetry and Reflection | Topic Dictionary

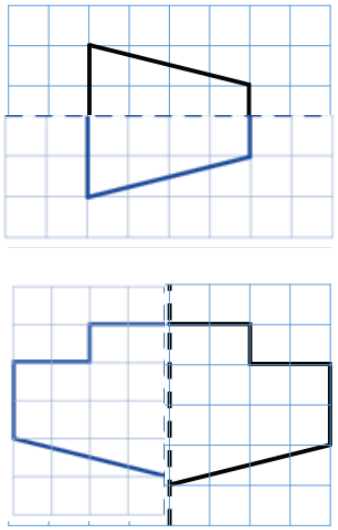
Key Word	Definition	In a sentence…
horizontal	A straight line from left to right (parallel to the x-axis).	A **horizontal** line runs from left to right, like the top edge of a table.
line of symmetry	A line that passes through the centre of a shape with a mirror image on either side of the line.	A **line of symmetry** divides a shape into two equal halves, just like folding a piece of paper in half.
mirror line	A line that passes through the centre of a shape with a mirror image on either side of the line.	The **mirror line** is like a reflective surface, where one side of the shape is the mirror image of the other.
perpendicular	Two straight lines that intersect at 90°.	Two streets that meet at a right angle are **perpendicular** to each other.
reflect	Mapping of one object from one position to another of equal distance from a given line.	When you **reflect** a shape, you flip it over a line, so it looks like a mirror image.
vertex	A point where two or more-line segments meet.	The **vertex** of a triangle is the point where two sides meet.
vertical	A straight line from top to bottom (parallel to the y axis).	A **vertical** line goes up and down, like the side of a building.

Maths | Line Symmetry and Reflection | Skills Guide

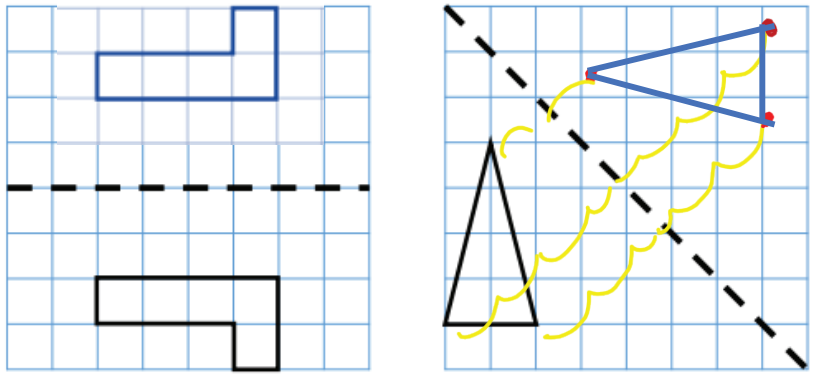
Reflect triangle P in the x-axis.
Label the new triangle S.



Complete each shape so the dotted lines are lines of symmetry.



Reflect the shapes in the lines shown.



Y8 Summer Term 2: Block 4 – Data Handling

Previous Block: Line Symmetry

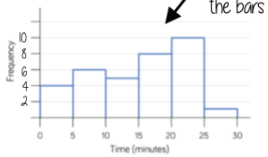
I can represent and interpret grouped quantitative data

Grouped quantitative data

Time (minutes)	Frequency
$0 \le t < 5$	4
$5 \le t < 10$	6
$10 \le t < 15$	5
$15 \le t < 20$	8
$20 \le t < 25$	10
$25 \le t < 30$	1

"More than or equal to 25 and less than 30 minutes"

The use of inequalities shows that this will be a frequency diagram



This is a frequency diagram There are no gaps between the bars

Grouping the data is useful if there is a large spread of data to begin with

I can find and interpret the range

Find and interpret the range

The range is a measure of spread

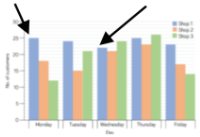
A smaller range means there is less variation in the results – it is more consistent data

A range of 0 means all the data is the same value

Difference between the biggest and smallest values

Shop 1 highest value

Shop 1 lowest value



Shop 1 has the smallest range – this indicates it has a more consistent flow of customers each week

Range of customers = 25 – 22 = 3 (Shop 1)

Next Block: Measures of Location

I can draw and interpret pie charts and line charts

Draw and interpret Pie Charts

Remember a circle has 360°

Type of pet	Dog	Cat	Hamster
Frequency	32	25	3

There were 60 people asked in this survey (Total frequency)

$\frac{32}{60}$ "32 out of 60 people had a dog"

This fraction of the 360 degrees represents dogs

$\frac{32}{60} \times 360 = 192°$

Use a protractor to draw This is 192°

Multiple method

÷5 60 goes into 360 – 6 times

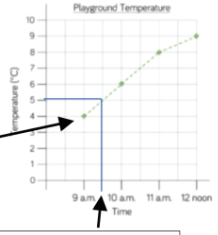
Each frequency can be multiplied by 6 to find the degrees (proportion of 360)

Represents quantitative, discrete data

Draw and interpret line graphs

- Commonly used to show changing over time
- The points are the recorded information and the lines join the points

Line graphs do not need to start from 0



More than one piece of data can be plotted on the same graph to compare data

It is possible to make estimates from the line e.g. temperature at 9.30am is 5°C

I can design and criticise a questionnaire

Design and criticise a questionnaire

The Question - be clear with the question - don't be too leading/ judgemental

e.g. How much pocket money do you get a week?

Responses – do you want closed or open responses? – do any options overlap? – Have you an option for all responses?

Zero option → ☐ £0 ☐ £0.01 - £2 ☐ £2.01 - £4 ☐ more than £4 ← More option

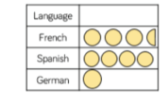
NOTE: For responses about continuous data include inequalities $< x \le$

I can draw and interpret pictograms, bar charts and line charts

Pictograms, bar and line charts

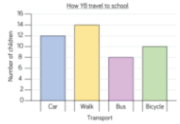
Represents quantitative data

Pictogram



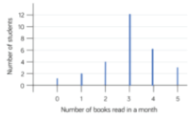
- Need to remember a key
- Visually able to identify mode

Bar Chart



- Gaps between the bars
- Clearly labelled axes
- Scale for the axes
- Title for the bar chart
- Discrete Data

Line Chart



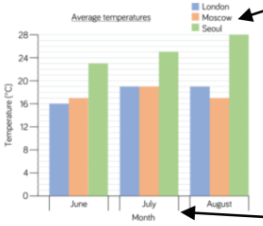
- Gaps between the lines
- Clearly labelled axes
- Scale for the axes
- Discrete Data

Multiple Bar chart

Compares multiple groups of data

- Clearly labelled axes
- Scale for axes
- Comparable data bars drawn next to each other

Key/ Colour code for separate groups of information



Gap between different categories of data

I can set up a statistical enquiry

Set up a statistical enquiry

Write a suitable hypothesis → Design a data collection sheet → Pros/ Cons of sampling → Pros/ Cons primary or secondary data → Discrete or continuous data?

Features of a data collection sheet

Grouped or ungrouped categories

Data Title	Tally	Frequency
	𝍸	

Total number of that group observed

Maths | The Data Handling Cycle | Topic Dictionary

Key Word	Definition	In a sentence…
average	A measure of central tendency – or the typical value of all the data together.	To find the mean **average** of your test scores, add them up and divide by the number of tests you took
continuous data	Numerical data that has an infinite number of values (often seen with height, distance, time)	Height is an example of **continuous data** because it can be any number, like 1.5 meters, 1.55 meters, or 1.6 meters.
discrete data	Numerical data that can only take set values.	The number of students in a classroom is **discrete data** because it can only be a whole number, like 20 or 21, but not 20.5.
hypothesis	An idea or question you want to test.	Before starting the experiment, you might make a **hypothesis** like 'If I water the plant more, it will grow taller.'
primary data	Data you collect yourself.	If you survey your classmates to see their favourite colour, that would be **primary data** because you collected it yourself.
proportion	Numerical relationship that compares two things.	If 3 out of 5 students like chocolate ice cream, the **proportion** of chocolate ice cream lovers is 3/5.
sampling	The group of things you want to use to check your hypothesis.	You can use **sampling** by choosing a few students from the class to represent the entire group in a survey.
secondary data	Data you source from elsewhere e.g. the internet/ newspapers/ local statistics.	Looking up the weather statistics online is an example of **secondary data** because you didn't collect the data yourself.
spread	The distance/ how spread out/ variation of data.	The **spread** of your test scores shows how much they vary; if most scores are close together, the spread is small.

Maths | The Data Handling Cycle | Skills Guide

The pictogram shows the pets owned by the students in a class.

Key: □ = 4 children

Pet	Number of students
Dog	□ □ □ ▫
Cat	□ □
Fish	□
Hamster	□ ▫

8 students have cats. → 18 □ = 4
Show this in the pictogram. □ □ = 8

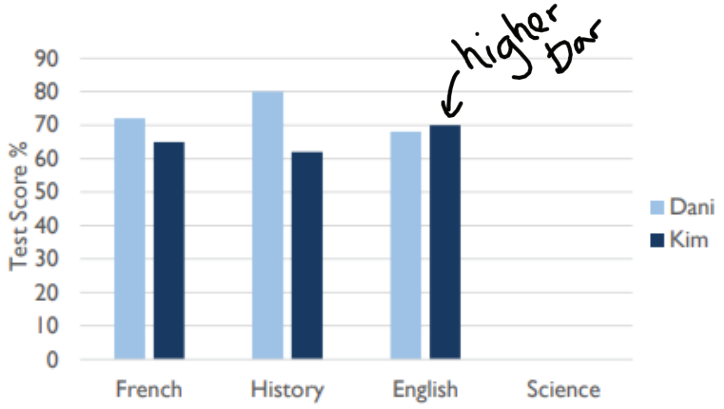
How many students have a hamster?

4 + 2 = 6

How many students have a dog?

13

The bar chart shows the scores of Dani and Kim in their French, History, English and Science tests.



Complete the bar chart to show that Dani scored 75% and Kim scored 70% in their science tests.

In which test did Kim score more than Dani?

English

How much more did Dani score than Kim in the history test?

D = 80%
K = 62%

18%

What is the range of Dani's scores?

↳ Highest - Lowest

80 - 68 = 12%

Y8 Summer Term 2: Block 5 – Measures of Location

Previous Block: Data Handling Cycle

I can identify outliers

Outliers are values that stand well apart from the rest of the data

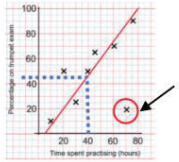
Outliers can have a big impact on range and mean. They have less impact on the median and the mode.

Sometimes it is best to not use an outlier in calculations

Height in cm

152 150 142 158 182 151 153 149 156 160 151 144

Where an outlier is identified try to give it some context. This is likely to be a taller member of the group. Could the be an older student or a teacher?



Outliers can also be identified graphically e.g. on scatter graphs

I can compare distributions

Comparisons should include a statement of average and central tendency, as well as a statement about spread and consistency

Here are the number of runs scored last month by Lucy and James in cricket matches

Lucy: 45, 32, 37, 41, 48, 35

James: 60, 90, 41, 23, 14, 23

Lucy

Mean: 396 (1dp), Median: 38 Mode: no mode, Range: 16

James

Mean: 418 (1dp), Median: 32, Mode: 23, Range: 76

James has two extreme values that have a big impact on the range

"James is less consistent that Lucy because his scores have a greater range. Lucy performed better on average because her scores have a similar mean and a higher median"

Next Block: Yr9 Straight Line Graphs

I can choose appropriate averages

Choosing the appropriate average

The average should be a representative of the data set – so it should be compared to the set as a whole - to check if it is an appropriate average

Here are the weekly wages of a small firm

£240 £240 £240 £240 £240

£260 £260 £300 £350 £700

Which average best represents the weekly wage?

The Mean = £307

The Median = £250

The Mode = £240

Put the data back into context

Mean/Median – too high (most of this company earn £240)

Mode is the best average that represents this wage

It is likely that the salaries above £240 are more senior staff members – their salary doesn't represent the average weekly wage of the majority of employers

I can work out the mean, median and mode

The Mean

A measure of average to find the central tendency… a typical value that represents the data

24, 8, 4, 11, 8,

Find the sum of the data (add the values) 55

Divide the overall total by how many pieces of data you have 55 ÷ 5

Mean = 11

The Median

The value in the center (in the middle) of the data

24, 8, 4, 11, 8,

Put the data in order 4, 8, 8, 11, 24

Find the value in the middle 4, 8, 8, 11, 24

Median = 8

NOTE: If there is no single middle value find the mean of the two numbers left

The Mode (The modal value)

This is the number OR the item that occurs the most (it does not have to be numerical)

24, 8, 4, 11, 8,

This can still be easier if it the data is ordered first

4, 8, 8, 11, 24

Mode = 8

Maths | Measuring of Location | Topic Dictionary

Key Word	Definition	In a sentence…
average	A measure of central tendency – or the typical value of all the data together.	To find the mean **average** score of your class, you add up all the scores and divide by the number of students.
consistent	A measure of central tendency – or the typical value of all the data together.	If your homework scores are all around the same number, your results are **consistent**.
frequency	The number of times the data values occur.	The **frequency** of a number in a survey is how many times that number appears, like how many people prefer chocolate ice cream.
outlier	A value that stands apart from the data set.	If most students scored between 70 and 90 on the test, but one student scored 30, that score is an **outlier** because it's very different from the others.
represent	Something that shows the value of another.	A pie chart can **represent** the different types of pets owned by your classmates.
spread	The distance/ how spread out/ variation of data.	The **spread** of the scores in the class tells you how much the scores vary from the lowest to the highest.
total	All the data added together.	The **total** number of points scored by all the players in the game is the sum of all their individual scores.

Maths | Measuring of Location | Skills Guide

Dora did a survey to find out how long it takes her classmates to get to school. Here are the results.

Time taken (minutes)	Frequency	MP	Freq (f) × MP
$5 < x \leq 10$	8	7.5	60
$10 < x \leq 15$	12	12.5	150
$15 < x \leq 20$	7	17.5	122.5
$20 < x \leq 30$	4	25	100
	31		432.5

How many students are in her class?

Add Frequencies
= 8 + 12 + 7 + 4

31

What is the modal class interval?

↳ Mode → Most

$10 < x \leq 15$

Calculate an estimate for the mean time taken.

↳ 1SF

400 ÷ 30 = 13

13

These are Ron's test scores for his last 8 tests.

17, 10, 13, 17, 11, 2, 14, 12
1 2 3 4 5 6 7 8

Work out the mean of Ron's test scores.

↳ Add data values and divide by amount.

$\frac{17+10+13+17+11+2+14+12}{8}$ 12

Work out the median of Ron's test scores.

↳ Ascending 12.5

↳ Middle

2, 10, 11, 12, 13, 14, 17, 17

Mean of $\frac{12+13}{2} = 12.5$

A dice was rolled 10 times.
These are the numbers rolled.

2, 5, 5, 3, 1, 6, 4, 5, 2, 1

Which score is the mode?

5

↳ Most common

Dance Music | Knowledge Organiser |

1 Dance music Styles

Classical – Styles include the Polka (fast tempo and a 2/4 time signature) and the Viennese Waltz (fast tempo, elegant flow and fast turns).

Latin American – Tango (syncopated rhythms and 4/4 time signature) and Salsa (lively and upbeat style with a strong beat).

South-East Asian and Contemporary styles – Use of modes, religious influences, an improvisatory style above a tabla rhythm and a strong storytelling aspect.

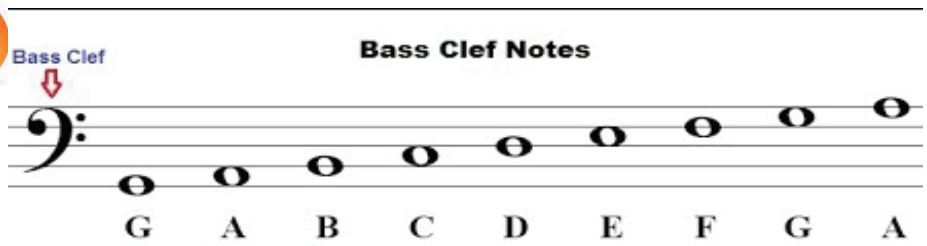
Contemporary – includes hip hop, (characterised by heavy beats emphasizing footwork). lyrical and Modern (characterised by challenging concepts and a fluid approach to time signatures and tonal systems).

2 Club Dance Music from the 90s

Club Dance Music from the 90s is an example of Dance Music that relied on Music Technology using sampling, strong bass lines and repeated catchy riffs.

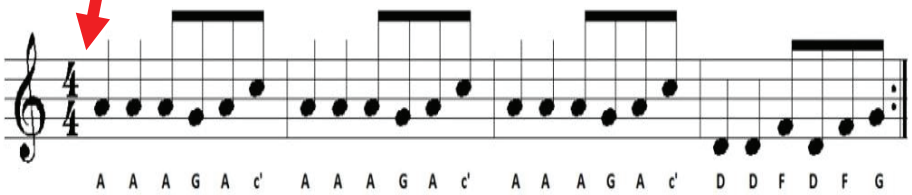
The 1990s club dance scene was characterized by electronic music and an atmosphere of celebration. Styles included Techno and Dance Pop – 2Unlimited, Cher and Madonna

3



4 Playing Riff 1 with the correct rhythm:

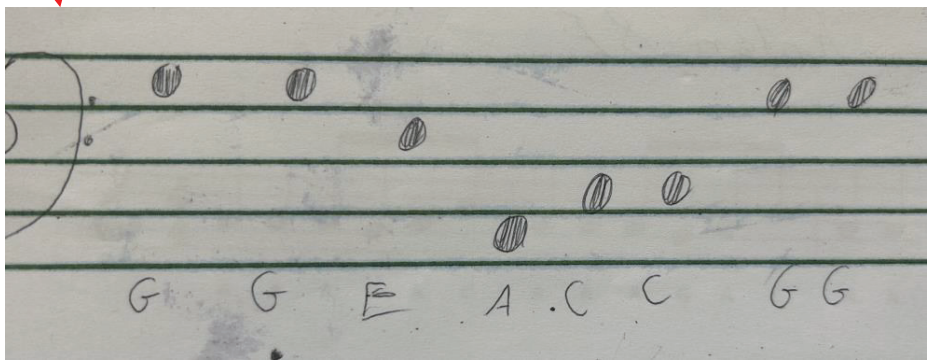
Tea, Tea, Coff-ee Coff-ee, Tea, Tea, Coff-ee Coff-ee, Tea, Tea, Coff-ee Coff-ee, Tea, Tea, Coff-ee Coff-ee,



5 Creating the next big Dance Hit of 2024

This will require a catchy riff (short 8 note melody created using the bass clef)

We will record your riff into BandLab using the MIDI Keyboard.



Skills Guide | What will I be assessed on in Music?

Practising and Performing

This is your opportunity to show that you can **sing/play** a simple theme that you have learnt in front of your teacher and peers on the keyboard. You will need to think carefully about what makes a successful and convincing performance! Below are some things to consider:

Performing skills: You will learn to perform as

- A whole class
- In groups
- As a soloist

You should try to perform with:

- Accuracy
- Fluency
- Expression (Dynamics, articulation,
- phrasing, sense of ensemble)
- A sense of style

Rehearsing skills: You will learn to

- Work independently
- Set up your equipment and space swiftly and safely
- Organise your time effectively
- Listen to and support your peers.
- Respond to feedback, setting goals for improvement
- Evaluate yours and others' work using key words

Composing and arranging

Composing means **creating** music from scratch. When you compose a set of variations based on a given theme you must be sparing with your ideas (don't get too complicated). Once you have mastered the technique in each variation you can get really creative!

Composing and arranging skills: You will learn to create a remix of a piece of classical music. Your aim will be to modernize a piece of music from the 1800s!

BandLab skills:

- Choosing the key of your piece.
- Using the filter function to find samples.
- Using the splice function.
- Using the drum machine.
- Using the MIDI keyboards.

Key things to think about:

Listening to and identifying music

You need to listen to a set of variations and spot the changes from the original theme. You will use the skills you have mastered in the performing and composing element of the course to recognize the same techniques in a range of classical and popular pieces

Listening skills: You will learn to use your listening skills during independent practice to monitor your strengths and areas for development. Your ears are your most important tool and you will need to listen critically every time you play your instrument.

Is your Keyboard-playing in time and are you playing each note with an even tone so that all the keys go down together at the same time?

Are you playing your piece at the same speed all the way through?

Are you playing the correct rhythms?

Exploring your thinking

Learning about theme and variations is important because it helps us to understand how much music can be generated using a simple starting point.

Exploring and researching skills: You will explore a range of classical music. You will explore different types of Dance Music, with a big focus on 90s Club Dance Music. Dance Music examples include:

Waltz
Tango
Polka
Samba
Salsa
Kathak
Disco
Bhangra
Hip-Hop

Dance Music | |Topic Dictionary

Image	Key Term	Definition	In a sentence:
	**dance music**	music which is created with the intention of dancing	I have been studying Samba, which is a part of the **dance music** genre.
	**waltz**	a ballroom dance in triple time with a strong accent on the first beat.	famous **walzes** include the Viennese **Waltz** and the Blue Danube **Waltz**.
	**tango**	a partner dance and a social dance that originated in Argentina.	The **tango** was created in the bars of the ports of Argentina and considered very exciting and risque. It soon spread throughout the world.
	**polka**	a lively courtship dance in 2/4 time.	**Polka** is characterised by three quick steps and a hop!
	**samba**	a ballroom dance of Brazilian origin, popularised in Western Europe and the US.	**Samba** has its roots in African and Brazilian culture.
	**salsa**	a lively dance which blends many different elements. Salsa originated in Cuba and Puerto Rico in the 1920s.	Cuban musicians brought **salsa** to New York, where it was cultivated into its own style within the Latino community.
	**disco**	originated in the 1960's nightclub scene in the United States.	**Disco** dancing doesn't require a partner and can be performed as a solo.
	**bhangra**	a fusion of indian and western music featuring complex rhythms, different time signatures and short songs.	**Bhangra** has its origins in the folk dance of the Punjab region.
	**hip-hop**	a range of street styles combining a variety of freestyle movements including popping, locking and breaking.	**Hip hop** embraces many artistic elements and is intended for seeing, celebrating and confronting issues faced by people and the world.

Dance Music | |Topic Dictionary

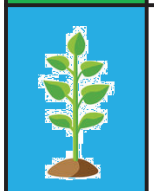
Topic	Word	Definition	In a sentence:
	**midi**	Musical instrument digital interface.	**Midi** allows electronic musical instruments and computers to communicate with each other.
	**automation**	Having a DAW automatically perform tasks.	**Automation** is the process by which a machine operates automatically.
	**riff**	A short, repeated motif.	The **riff** of this song is very catchy.
	**bass clef**	The sign which shows all notes to be played in the lower register.	The cello mainly plays in the **bass clef**.
	**loop**	A repeated section.	We can use **loops** to underpin our composition on bandlab.
	**sampling**	An imported sound effect or theme.	You can **sample** classical music to layer into your music.
	**four on the floor**	A steady, accented pattern in 4/4 time where the bass drum is hit on every beat.	**Four on the floor** is used to describe the beat in dance music.
	**remix**	A new version of a piece which has been created by putting together the individual instrumental and vocal parts in a new way.	The **remix** of that song is better than the original!

Music | Variations | Assessing Progress

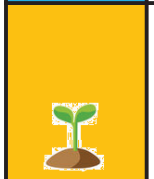
Developing my skills in Music

- ❑ I can play Riff 1 and 2 with expressions.
- ❑ I can compose my own riff and label the notes I have used.
- ❑ I can play my own composition into BandLab using the MIDI keyboard.
- ❑ I am always on task, attempting the stretch activities.

- ❑ I can play Riff 1 and 2 confidently and fluently.
- ❑ I can compose my own riff AND label all the notes of the Bass Clef.
- ❑ I can play my own riff into BandLab using the MIDI keyboard.
- ❑ I am always on task.



- ❑ I can play Riff 1 confidently and fluently.
- ❑ I can label all the notes of the Bass Clef.
- ❑ I can record my own riff onto BandLab using the MIDI keyboard.
- ❑ I am almost always on task.



- ❑ I can play Riff 1 slowly and smoothly.
- ❑ I can label some of the notes of the Bass Clef.
- ❑ I can record a riff using the MIDI keyboard.
- ❑ I am on task most of the time.

This is where you and your teacher can agree on a personalised target. This could include:

- ❑ Performing a solo in front of the class
- ❑ Composing an extended piece using music software
- ❑ Presenting some research on variation form to the class

As a year 8 musician I know how to:

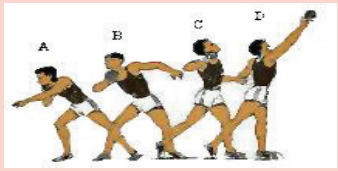
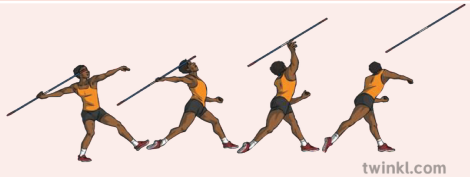
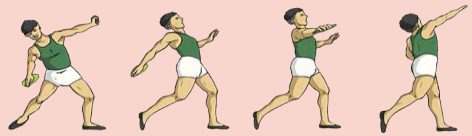
Aim	Date
Play Riff 1 or 2 in time with my partner/group.	
Compose my own riff using notation.	
Label all the notes of the Bass Clef.	
Use the MIDI keyboard to record my composition into BandLab	
Listen to teacher feedback to improve my creative ideas.	

PE | Anatomy and Physiology | Topic Dictionary

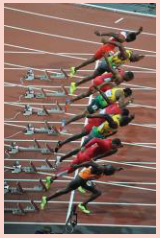
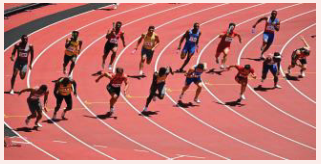
Key word	Definition	Question
blood pressure	The pressure that blood is under	Why is it a bad thing to have high **blood pressure**?
artery	Blood vessel with think muscular walls. Carries blood away from the heart	What is the role of an **artery**?
capillary	Thin blood vessel that allows the exchange of oxygen and carbon dioxide from the blood to the muscle	What is the role of a **capillary**?
vein	Blood vessel containing valves. Carries blood back towards the heart	What is the role of a **vein**?
inspire	Breathing in	Why do we **inspire** quicker when we start exercising?
expire	Breathing out	Why do we **expire** quicker when we start exercising?
haemoglobin	The substance in the red blood cells which carries oxygen and carbon dioxide	Why would a performer want higher levels of **haemoglobin** in their blood?

Athletics Knowledge Organiser

Field Events

Event	Teaching Points	Visual Guidance
Shot put	- Stand side on - Make sure you have a 'Dirty neck/fingers, clean palm' - Chin, Knee, Toe are all in line (Tony Chin!) - Aiming at a 45 degree angle - Moving from low to high when releasing the shot - Keep your elbow high	
Javelin	- Stand side on - Arm is extended full behind you - The tip of the javelin in your line of vision - Back leg bent, with your weight on this leg - Elbow comes through first and forearm is extended - Release just above head height	
Discus	- Adopt a shoulder width stance and perform preliminary swings - Release from index finger, top of hand cuts through the air facing upwards - Aim for chin over knee over the toe on the left leg - Power is generated from the legs—swing low to high	

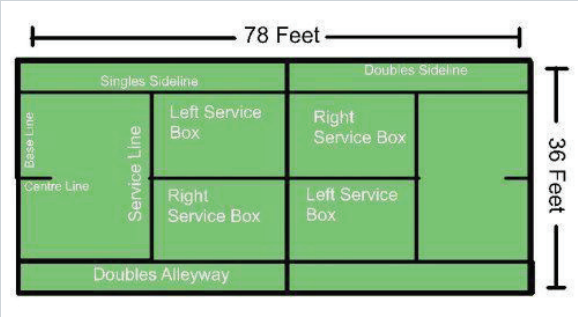
Track Events

Event	Key facts	Visual Guidance
100m sprint	- The shortest common outdoor running distance, it is one of the most popular and prestigious events in the sport of athletics - The 100m places a strong emphasis on reaction time, power and pure speed in order to be successful. - The current men's world record is 9.58 seconds, set by Jamaica's Usain Bolt in 2009, while the women's world record of 10.49 seconds set by American Florence Griffith - Joyner in 1988 remains unbroken.	
4x100 relay	- The 4 × 100 metres relay or sprint relay is an athletics track event run in lanes over one lap of the track, with four runners completing 100 metres each. The first runners must begin in the same stagger as for the individual 400 m race. A relay baton is carried by each runner and handed over at each stage of the relay. - Polished handovers can compensate for a lack of basic speed to some extent, and disqualification for dropping the baton or failing to transfer it within the box is common, even at the highest level.	

Tennis Knowledge Organiser

Vocabulary

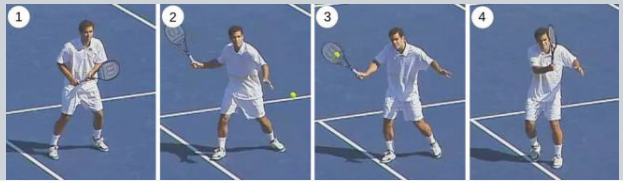
Backhand: a stroke in which the ball is struck on the opposite side of the body to the racquet hand Drop Shot: a gentle shot that just lands just over the net **Forehand**: a shot hit from the racket-arm side of the body
Grip: how to hold the racket in tennis that is hit in a high arc, usually over the opponent's head
Net: the woven barrier dividing a court into halves, over which the ball must be hit
Racket: a stringed 'bat' that players hold and use to hit the ball Rally: a long series of shots
Return: to hit a shot back to the opponent
Umpire: the official who is in overall charge of a match
Volley: a shot on which the ball is hit before it bounces
Serve: the shot that begins each point, in which the server hits the ball after tossing it into the air. The serve must go diagonally across the court and bounce in the serving box.



Skills

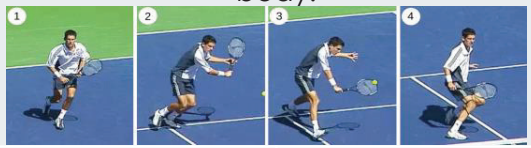
Forehand

A shot hit from the racket-arm side of the body. Usually played as a one-handed shot. Hit the ball side on, creating a 'star' shape with your body and swinging with a low to high swing path.



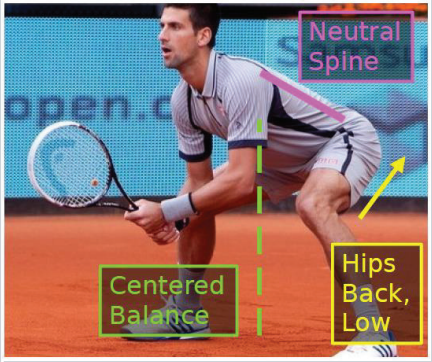
Backhand

A stroke in which the ball is struck on the opposite side of the body to the racquet hand. A backhand shot is now more commonly hit with a two-handed grip, however some players (Federer) will use a one handed grip. Use the same technique as the forehand just from the other side of your body.



Ready Position

Allows a player to be alert, making sure they are on their toes as it enables them to react to where their opponent hits the ball. After a shot is played, returning to the centre of the court is important.



Professional Tennis

Federer is the most successful men's player of all time holding many records, having won 20 Grand Slam titles (he reached 10 finals in a row), 6 ATP Finals, 103 career titles and has spent a record 310 weeks (237 consecutive) as World Number 1!

Williams is the most successful women's player of all time and has won the most Grand Slam titles with 39: Singles 23, Doubles 14, Mixed 2. She is also the most decorated player (along with her sister Venus) in Olympic history with 4 Gold Medals

Cricket Knowledge Organiser

Key Knowledge

- There are 11 players in a Cricket team
- The object of the game is score points (called 'runs') by hitting a ball using a bat. The other team must try to get batters 'out' and prevent runs being scored.
- Each time a batsman runs from one wicket to the other, one run is scored
- If the ball reaches the edge of the pitch, or 'boundary', and touches the ground on the way, four runs are scored.
- If the ball passes the boundary without touching the floor, six runs are scored.
- The batsman must protect his/her stumps.
- If the ball hits the stumps and the bails are removed, then the batsman is out.
- A batsman will also be out if he/she hits the stumps with his/her own bat, if a fielding player catches a ball hit by the batsman without it touching the ground and if the ball thrown at the stumps whilst the batsmen are running between the stumps.
- When a batsman is out, this is known as 'taking a wicket'
- Bowlers deliver 6 balls per over and one bowler cannot deliver consecutive overs.
- There are two umpires in place during games. Umpires are responsible for making decisions and notifying the scorers of these decisions.
- Two umpires are in place on the playing field while there is also a third umpire off the field who is in charge of video decisions.

Long Barrier

1. Approach the ball at speed and as you get into line with the ball, twist your upper body, leading with the shoulder furthest from the ball.
2. Bend both knees, so that the knee of the leg nearest to the ball touches the ground, but it is also next to the back of the heel of the other leg.
3. With fingers down and head forward, pick up the ball and then stand back up ready to deliver an overarm throw.

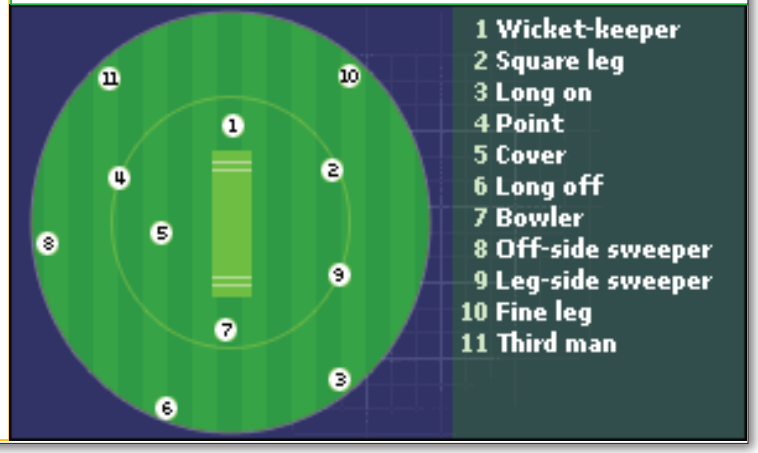
Overarm throwing

1. Your throwing elbow should be at or above shoulder level.
2. Use your non-throwing arm as an aid to the direction of the throw. Try to aim just above the stumps in an imaginary box to make it easy for the wicketkeeper to catch or one bounce.
3. Look at your target at all times to ensure the direction of the throw is accurate.

Straight drive

1. As your eyes remain fixed on the ball, lead with the front shoulder.
2. The front foot and a bent front knee form the base for the shot. 3. The head should at least be level or in advance of the front knee, with the back foot up on the inside of the big toe.
4. The bat accelerates vertically and contact with the ball is made with the eyes directly above.
5. The bat then accelerates through a straight path, with wrists relaxing to enable the bat to finish over the front shoulder with the face of the bat facing the sky.

Fielding positions



Skills Guide

DEFINE

I am able to:

- Define 5 key words from my dictionary, such as:
- Blood pressure
- Artery
- Capillary
- Vein
- Haemoglobin

APPLY

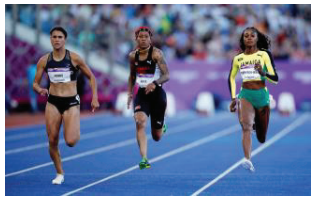
I am able to:

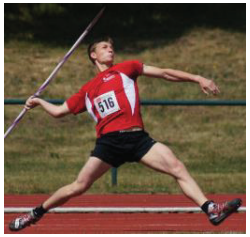
- Describe how key words from my dictionary relate to the chosen sport, for example, why do we inspire and expire quickly when we are running in tennis?
- Describe how arteries, veins and capillaries work together

EVALUATE

I am able to:

- Explain why a tennis player, cricket player and an athlete would require higher levels of haemoglobin
- Explain why having a high blood pressure would be a negative thing for a sportperson





Challenge:
How can athletes increase the amount of haemoglobin in their body?

RE | The Shack: Christian Beliefs | Topic Dictionary

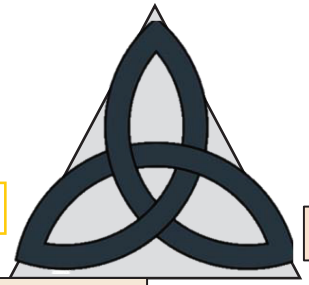
Image	Key Word	Definition	In a sentence
	**agnostic**	A person who believes that nothing is known or can be known of the existence or nature of God.	I knew that I was **agnostic** about some things
	**atheist**	An atheist is someone who does not believe in the existence of a god or gods.	I wrote **'atheist'** under 'religion' on the form
	**faith**	Strong belief in the doctrines of a religion, based on spiritual conviction rather than proof	Consider a **faith**, a belief system, as a theory about how the universe works.
	**immanent**	In Christianity, immanence is the belief that God is present in the world, and that God is active and involved in human history.	God, however defined or understood, is **immanent** in all things, which is why we must look so directly at the world, even when the world indicts us for being terrible tenants.
	**moral evil**	Moral evil is an act or inaction that is intentionally harmful and considered morally wrong.	**Moral evil** is any morally negative event caused by the intentional action or inaction of an agent, such as a person. E.g. murder.
	**natural evil**	Natural evil is a term used to describe suffering or pain that occurs as a result of natural events, rather than human actions	**Natural evil** is suffering caused by natural events that humans cannot control. Examples include Earthquakes.
	**punitive**	In Christianity, punitive means inflicting punishment, or relating to punishment. It can also refer to actions or words that are vengeful, retaliatory, or retributive.	The Bible advocates **punitive** justice for some crimes, and restorative justice for others.
	**suffering**	The state of undergoing pain, distress, or hardship	The child was not **suffering** from any physical ailment which could be cured through surgery."
	**transcendent**	In Christianity, transcendent means God is above and beyond the human world, and is not limited by time or space	The search for a **transcendent** level of knowledge
	**Trinity**	The Trinity is a central Christian belief that God is one being that exists in three distinct persons: the Father, the Son, and the Holy Spirit.	They further believe that he is God, the second person in the **Trinity**

Knowledge Organiser – The Shack: Trinity

In the Shack

Father (Papa/Eloisa), Spirit (Sarayu), Jesus

1



God the Father

God the Father has a central role as the creator of the universe and the one judging humanity when the Day of Judgement Comes. Thought of as **transcendent** by Christians and theologians he is often represented as an old man looking at humanity from heaven.

Holy Spirit

The Holy Spirit is an **immanent** and **ever-present** energy of God in the universe. Throughout the Bible the Holy Spirit is believed to give humanity special **talents** to connect them to God. For example, the Spirit is present at the **Pentecost** where it helps the **disciple's** growth the Christian Church.

God the Son

The Son or Jesus is thought of as both **immanent and transcendent** (Matthew 1:18-25 and John 1:1) in Christian theology. As Jesus is **God incarnate** humans can connect to Him and the suffering he accepted on humanity's behalf.

As a Year 8 RE student, I know …	
1. Christian doctrine of the trinity and qualities of God	
2. The Nicene Creed as the Christian Declaration of Faith	
3. Why people do not believe in God	
4. how Christians reconcile with God	

4

Reconciling with God

Reconciliation is a sacrament. For Christians accepting struggle is a part of life and overcoming it is a part of their journey to God**. In a Christian's life there may be the following moments of doubt:**

1. Suffering and Pain
2. Unanswered Prayers
3. Natural Disasters and Tragedies
4. Injustice and Evil
5. Religious Conflicts and Divisions
6. Personal disappointments and setbacks
7. Loss of faith

3

Atheism and Agnosticism.

Some who struggle to reconcile with God develop an atheist or agnostic worldview. **They may do so for the following reasons:**

The Problem of Evil - People wonder why bad things happen if a loving, all-powerful God exists.
Personal Tragedy - Experiencing loss or hardship can make someone question their faith.
Lack of Evidence - Some people feel there's not enough proof that God or gods are real.
Different Religions - Seeing so many different religions can make people wonder which one, if any, is true.
Upbringing and Culture - People raised without religion might not feel a need to believe in God.
Disappointment with Religious Leaders - When religious leaders act in harmful or hypocritical ways, it can turn people away from faith.
Feeling Distant from God -If someone prays and doesn't feel heard, they might stop believing.
Seeking Their Own Path -People might decide to explore life's big questions without following any religion

2

Nicene Creed

We believe in one God, the Father, the almighty, maker of heaven and earth, of all that is, seen and unseen.

We believe in one Lord, Jesus Christ, the only Son of God, eternally begotten of the Father, God from God, Light from Light, true God from true God, begotten, not made, of one being with the Father. Through him all things were made. For us men and for our salvation he came down from heaven; by the power of the Holy Spirit, he became incarnate of the Virgin Mary, and was made man. For our sake he was crucified under Pontius Pilate; he suffered death and was buried. On the third day he rose again in accordance with the scriptures; he ascended into heaven and is seated at the right hand of the father. He will come again in glory to judge the living and the dead, and his kingdom will have no end.

We believe in the Holy Spirit, the Lord, the giver of life, who proceeds from the Father and the Son. With the Father and the Son he is worshipped and glorified. He has spoken through the Prophets. We believe in one holy catholic and apostolic Church. We acknowledge one baptism for the forgiveness of sins. We look for the resurrection of the dead, and the life of the world to come. Amen

Skills – Biblical Literacy

What are we looking for?	When reading, ask yourself:
Literary Form	*How is this story written?* *Does the story have a specific genre?* *What meaning can we get from this story?*
Author and Audience	*Who was the text written by?* *Why did the author write this story?* *Who was it written for?*
Setting	*What is the world this story is set in?* *What places, roles, people and customs are mentioned?*
Meaning	*What do you think the author is trying to say with this story?* *What is this story about: morals, humanity, religion, God?*
Our World Today	*What can this story teach us about our world today?*

READ

John 16:9-33

9 Jesus saw that they wanted to ask him about this, so he said
to them, "Are you asking one another what I meant when I
said, 'In a little while you will see me no more, and then after
a little while you will see me'? 20 Very truly I tell you, you will
weep and mourn while the world rejoices. You will grieve, but
your grief will turn to joy. 21 **A woman giving birth to a child has
pain because her time has come; but when her baby is born
she forgets the anguish because of her joy that a child is born
into the world**. 22 So with you: Now is your time of grief, but I
will see you again and you will rejoice, and no one will take
away your joy. 23 In that day you will no longer ask me
anything. **Very truly I tell you, my Father will give you
whatever you ask in my name. 24 Until now you have not
asked for anything in my name. Ask and you will
receive, and your joy will be complete.**
25 "Though I have been speaking metaphorically, a time is
coming when I will no longer use this kind of language but will
tell you plainly about my Father. 26 In that day you will ask in
my name. I am not saying that I will ask the Father on your
behalf. 27 No, **the Father himself loves you because you have
loved me and have believed that I came from God. 28 I came
from the Father and entered the world; now I am leaving the
world and going back to the Father."**
29 Then Jesus' disciples said, "Now you are speaking clearly
and without figures of speech. 30 Now we can see that you
know all things and that you do not even need to have
anyone ask you questions. This makes us believe that you
came from God."
31 "Do you now believe?" Jesus replied. 32 "A time is
coming and in fact has come when you will be
scattered, each to your own home. You will leave me all
alone. Yet I am not alone, for my Father is with me.
33 "I have told you these things, so that in me you may have
peace. **In this world you will have trouble. But take heart! I
have overcome the world.**"

EXPLAIN

What are we looking for?	
Literary Form	*This story is from the Gospel of John. This gospel gives insight into Jesus' nature as both human and divine.*
Author and Audience	*Written for Christians and the students of Jesus this extract shows Jesus' awareness of suffering in the world. In this specific moment Jesus is reminding Peter that his faith is not yet strong enough, and that Peter may doubt him.*
Setting	*The language Jesus is using is metaphorical rather than literal. Verse 32 refers to people "scattering to their own home" which theologians understand as "fleeing".*
Meaning	*This extract shows Jesus' awareness that even his closest followers will scatter in fear. Through his omniscience Jesus chooses to reflect on the struggles of our lives and reminds Christians to return to having faith in him.*
Our World Today	*This proves to Christians that suffering is a test on the path to true faith in God. Furthermore, it proves that humans are not instantly capable of trusting in God's plan meaning they should never give up their faith as Peter did not.*

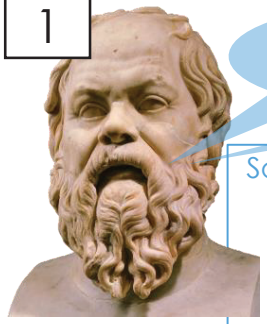
Challenge: What does Jesus say about suffering?

RE | Philosophy | Topic Dictionary

Image	Key Word	Definition	In a sentence
	**atheist**	A person who does not believe in the existence of God	I wrote **'atheist'** under 'religion' on the form
	**designer god**	The concept of a God who created the universe with a specific design or purpose.	The "design argument" posits that the intricate complexity of the universe points towards the existence of a "**designer God**," an intelligent being who created it with purpose
	**immortal**	Not subject to death or decay; living forever	What is the point of being **immortal** if you don't have good health
	**miracle**	A surprising and welcome event that is not explicable by natural or scientific laws and is therefore considered to be the work of a supernatural agency such as God.	Doctors and scientists are divided on the merits of searching for the **miracle** cure.
	**morality**	Principles concerning the distinction between right and wrong or good and bad behavior	The **morality** of a country is judged by the way it treats its animals.
	**physiological**	Relating to the branch of biology that deals with the normal functions of living organisms and their parts.	The adoption of this teaching leads to certain desirable **physiological** consequences in the end product
	**self-actualization**	The realization or fulfilment of one's talent and potentialities, especially considered as a drive or need present in everyone.	Prosperity and equality bring greater opportunities for **self-actualization**
	**Socratic dialogue**	A method of teaching by question and answer, designed to lead students to discover truths for themselves.	The philosophy professor used **Socratic dialogue** in class to encourage critical thinking among her students.
	**theist**	A person who believes in the existence of God or gods.	As a **theist**, she believes in one God who created the universe

Knowledge Organiser – Philosophy

1



Why?

The only thing I know is that I know nothing.

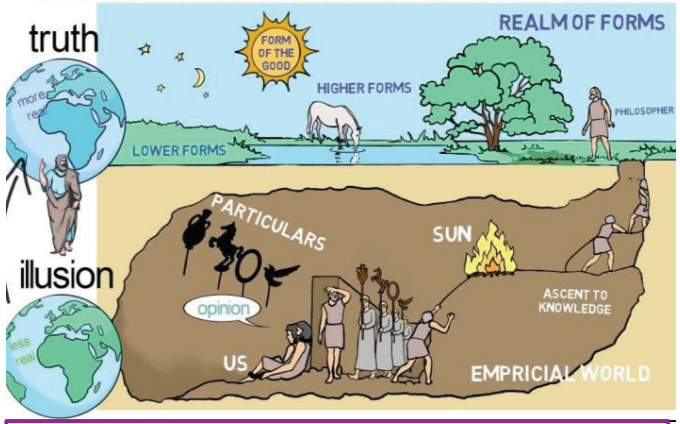
Socrates taught his students by only asking them questions!

Socrates is one of the most respected philosophers in the world. His method of philosophy was so influential philosophers and teachers still use it today. He used questioning to try and find out profound truths about the nature of reality and justice. Many of us may use the Socratic Method without realising it.

As a Year 8 RE student, I know …	
1. What philosophy is	
2. Whether God exists	
3. What happiness means?	

1

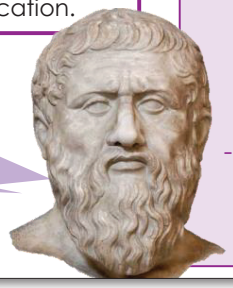
PLATO'S ANALOGY OF THE CAVE



Plato was trying to say that people are too happy to accept what they see as being the truth, without questioning it or asking more questions. Like the prisoners we are trapped in our ignorance.
He argues that the way to find truth is to become freed from those shackles and make the difficult journey to the 'light' (outside the cave). He believed that the way to do this was through education.

Ignorance is the root and stem of every evil."

Society should be ruled by philosopher kings!



2

The Design Argument (Teleological)

The argument from design tries to show that, because the universe is complex and intricate, it cannot have happened by chance. It must have been planned by an intelligent being. Every working object i.e. a watch had to be designed. This must apply to something as complex as the universe.

Argument from Morality

The argument from morality argued that we have morality from God.
As we all have morality, we must agree that God exists.

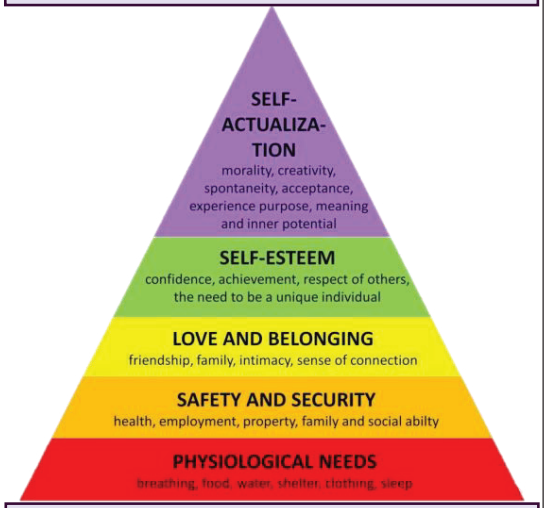
There are many other famous arguments to prove God.

Which do you think is strongest?

- **First Cause Argument:** Everything that exists has a cause. We would not be here without our parents, and they without their parents. All the way back to proverbial Adam and Eve.
- **Argument from Miracles**: Religions often report of miracles such as Jesus walking on water or Muhammed (pbuh) receiving the Qur'an from an angel. If miracles are real, their cause, God must also be real.
- **Argument from Perfection**: God is by definition a perfect being. God is all-knowing, all- powerful and all-loving. But is God was trily perfect he must also exist. Existence is another one of God's Qualities!

3

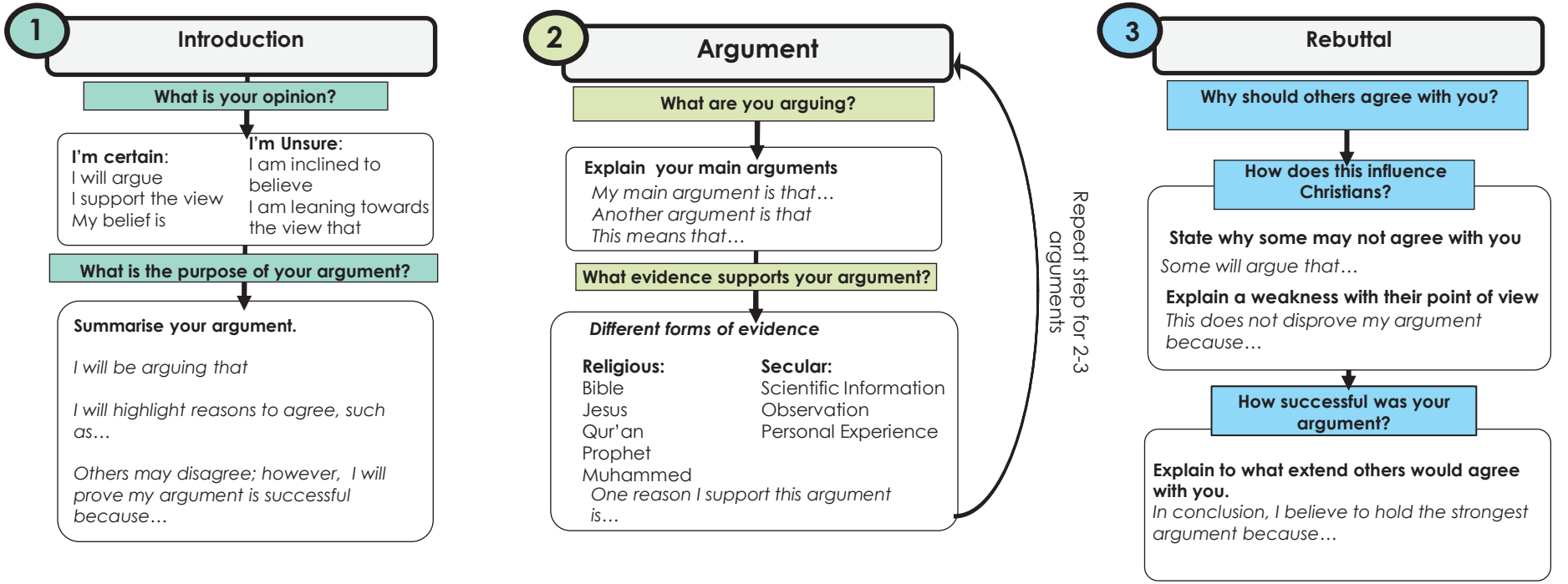
Maslow's Hierarchy of Needs



Abraham Harold **Maslow** was an American psychologist. He suggested there are **five hierarchies or levels of need** that explain how people are motivated.

A person will start at the bottom of the hierarchy and will seek to satisfy each need in order. Once the first **'physiological'** need is satisfied it no longer acts as a motivator.

Skills – Debating in RE



Model Paragraph: "God does not exist. To what extent do you agree?"

1 I will argue that atheists cannot disprove God's existence. I will highlight reasons to agree such as the variety of arguments that prove God's existence. These arguments include the argument from design and the first cause argument.

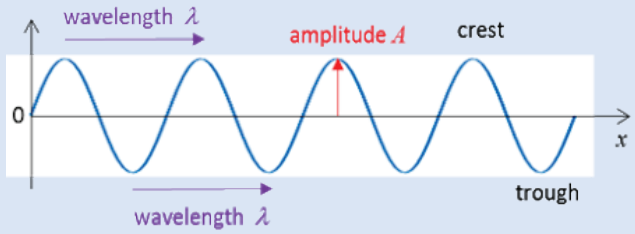
2 My first argument is the design argument. This argument claims that everything in the world, which is complex has a designer. This is a logical claim. We know that a watch has a maker as someone had to put a watch together in a very specific way for it to work, This links to how the universe works. The universe and all the planets and stars in it came together in such a way that there is life on our planet. This shows a great amount of detail in design. Who could design such a thing? I believe it is fair to say that only an all powerful and all knowing God could. Therefore, if we believe the universe exists, and we know it does, we also have to accept the claim that God exists too.

3 Some will argue that the design argument is flawed as there are other explanations for the design of the universe or human life. For example, the theory of evolution can imply that human life exists due to millions of random mutations which led to human life on earth. This makes sense but it does not answer the question: Who designed the process of evolution?

In conclusions, I believe that I hold the strongest argument is the design argument as it offers a logical solution to the question of God's existence.

Science | Light | Knowledge Organiser

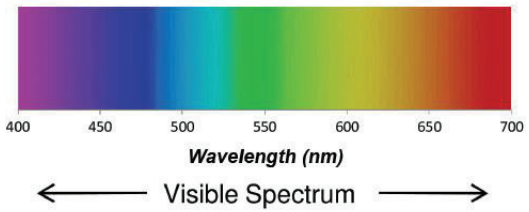
Transverse wave:



The speed of light in a vacuum is $3x10^8$ m/s

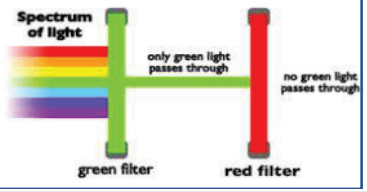
Colour

White light is a mixture of all the different colours of light. We an see this when we refract white light through a prism. Red light has the longest wavelength of visible light up to violet with the shortest wavelength.

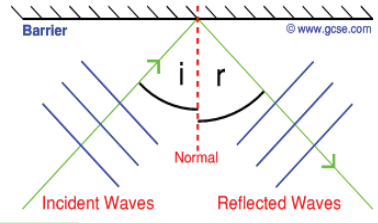


Filters

Filters are materials which only let certain wavelengths of light through. A red filter will absorb all of the violet, blue, green, and yellow wavelengths of light.



Reflection: Reflection can be modelled using a ripple tank and a flat barrier. If the wave hits the barrier at a non-zero angle then the wave will be reflected at the same angle it hit at.



Refraction:
Refraction is the apparent bending of a wave resulting from the wave hitting a boundary at an angle and being slowed, for example, light entering a glass block.

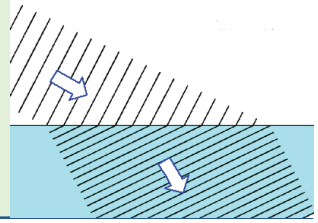
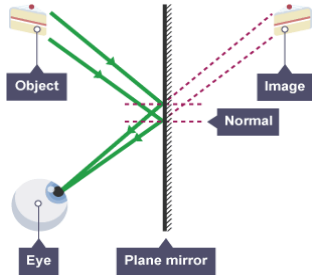


Image in the mirror

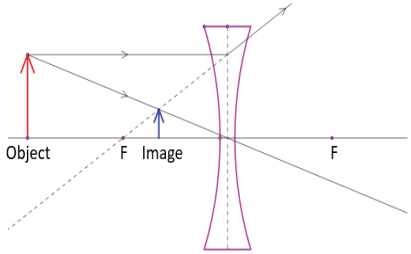
The image formed in a mirror is upright, virtual and laterally inverted (back to front). This is because the light appears to come from behind the mirror.



Concave lens

The image formed by a concave lens is always smaller, the right way up, and virtual.

Concave lenses are often used in eyeglasses to treat near-sightedness.



Convex lens

The image produce by a convex lens depends upon where the lens is in relation to the object.

Science | Inheritance| Knowledge Organiser

Variation

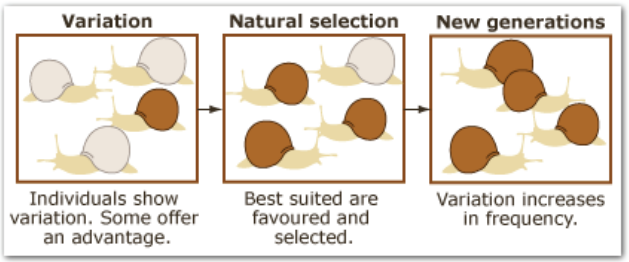
Inherited variation
- Blood group, nose shape, eye colour

Environmental variation
- Scars, tattoos, piercings

Combination of both
- Skin colour, weight, height

Natural Selection

How species have developed over time.
Theory developed by Charles Darwin
Process:
- Variation within species
- Due to a random mutation or trigger
- Survival of the fittest (best adapted survive)
- Survivors reproduce, passing on good genes
- Over time all offspring will express this characteristic.

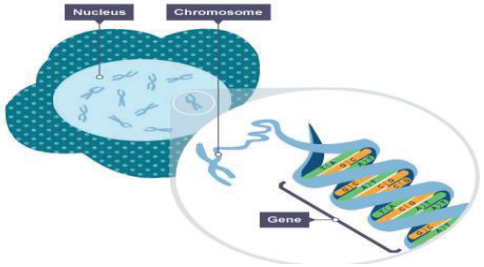


DNA and Chromosomes

DNA is the genetic code which makes up genes, giving an organism a specific characteristic.

You inherit pairs of genes for most characteristics from each of your parents. Humans have around 23 000 genes.

Genes are arranged into larger coiled structures called chromosomes. Humans inherit 23 from each of our parents (46 total)



Watson and Crick, with help from Franklin and Wilkins, discovered the double helix structure of DNA in 1953.

Fossils

Evidence for natural selection
Types:
- When harder parts of an organism are replaced with minerals
- When no decay happens, e.g. in ice or peat
- Traces of an organism are left behind, e.g. footprints

Biodiversity

A high **biodiversity** ensures a stable community by reducing the dependence of one species on another for food, shelter, and maintenance of the physical environment.
Human activity is affecting biodiversity, as the population of the earth continues to increase.
How do humans reduce biodiversity:
- Land use – building houses/farming
- Pollution – land, water and air pollution
- Quarries – to gain resources

Extinction

Extinction occurs when there are no remaining individuals of a species still alive.
Factors that may cause extinction include:
- A new disease
- Environmental changes over geological time
- A new predator (either evolved or introduced)
- A new competitor (either evolved or introduced)
- A single catastrophic event that destroys the habitat (e.g. volcanic eruption)
- Natural changes in species over time

Science | Speed | Knowledge Organiser

Speed

- The unit used to measure **distance is metres, m.**
- The unit used to measure **time is seconds, s.**
- The unit to measure speed is **metres per second, m/s.**
- The equation that links speed, distance and time is:

Speed = Distance ÷ Time

Calculating Speed

Akeel jogs for 20 s. In that time, he moves 100 m. What is his speed?

Given:	Time = 20 s Distance = 100 m
Unknown:	Speed= ?
Equation:	Speed = Distance ÷ Time
Substitute:	Speed = 100 ÷ 20
Solve:	Speed = 5 m/s

Distance-Time Graphs

- A **distance-time graph** shows how an object's speed changes over time.
- The **horizontal line** on a distance-time graph means the speed is zero (the object is stationary).
- The **slope** on a distance-time graph means the object is moving.

Relative Motion

- **Relative motion** is the speed of a moving object from the viewpoint of another moving object.
- If two objects move in the **same direction, you subtract.**
- If two objects move in the **opposite direction, you add.**

Calculating Relative Motion

A red car and blue car are moving in the same direction. The red car is moving at 3 m/s and the blue car is moving 5 m/s. From the perspective of the red car, how fast is the blue car moving?

5 m/s - 3 m/s = 2 m/s

As a Year 7 Scientist, I know…	
1. How to calculate speed.	
2. How to draw a distance-time graph.	
3. How to compare speeds on a distance-time graph.	
4. What relative motion is.	

Science | Periodic Table | Knowledge Organiser

The Periodic Table of Elements

1	2											3	4	5	6	7	0
							1 H hydrogen 1										4 He helium 2
7 Li lithium 3	9 Be beryllium 4											11 B boron 5	12 C carbon 6	14 N nitrogen 7	16 O oxygen 8	19 F fluorine 9	20 Ne neon 10
23 Na sodium 11	24 Mg magnesium 12											27 Al aluminium 13	28 Si silicon 14	31 P phosphorus 15	32 S sulfur 16	35.5 Cl chlorine 17	40 Ar argon 18
39 K potassium 19	40 Ca calcium 20	45 Sc scandium 21	48 Ti titanium 22	51 V vanadium 23	52 Cr chromium 24	55 Mn manganese 25	56 Fe iron 26	59 Co cobalt 27	59 Ni nickel 28	63.5 Cu copper 29	65 Zn zinc 30	70 Ga gallium 31	73 Ge germanium 32	75 As arsenic 33	79 Se selenium 34	80 Br bromine 35	84 Kr krypton 36
85 Rb rubidium 37	88 Sr strontium 38	89 Y yttrium 39	91 Zr zirconium 40	93 Nb niobium 41	96 Mo molybdenum 42	[97] Tc technetium 43	101 Ru ruthenium 44	103 Rh rhodium 45	106 Pd palladium 46	108 Ag silver 47	112 Cd cadmium 48	115 In indium 49	119 Sn tin 50	122 Sb antimony 51	128 Te tellurium 52	127 I iodine 53	131 Xe xenon 54
133 Cs caesium 55	137 Ba barium 56	139 La* lanthanum 57	178 Hf hafnium 72	181 Ta tantalum 73	184 W tungsten 74	186 Re rhenium 75	190 Os osmium 76	192 Ir iridium 77	195 Pt platinum 78	197 Au gold 79	201 Hg mercury 80	204 Tl thallium 81	207 Pb lead 82	209 Bi bismuth 83	[209] Po polonium 84	[210] At astatine 85	[222] Rn radon 86
[223] Fr francium 87	[226] Ra radium 88	[227] Ac* actinium 89	[267] Rf rutherfordium 104	[270] Db dubnium 105	[269] Sg seaborgium 106	[270] Bh bohrium 107	[270] Hs hassium 108	[278] Mt meitnerium 109	[281] Ds darmstadtium 110	[281] Rg roentgenium 111	[285] Cn copernicium 112	[286] Nh nihonium 113	[289] Fl flerovium 114	[289] Mc moscovium 115	[293] Lv livermorium 116	[293] Ts tennessine 117	[294] Og oganesson 118

Key

relative atomic mass
atomic symbol
name
atomic (proton) number

* The Lanthanides (atomic numbers 58 – 71) and the Actinides (atomic numbers 90 – 103) have been omitted.

Relative atomic masses for **Cu** and **Cl** have not been rounded to the nearest whole number.

Science | Light| Topic Dictionary

Key term	Definition	In a sentence
Refraction	The bending of light as it passes from one transparent material to another with a different density, changing its speed and direction (e.g., a straw looking bent in water).	The **refraction** of light causes a pencil to look bent when placed in a glass of water
Reflection	The bouncing back of light rays when they hit a surface, like a mirror, allowing us to see images.	The **refraction** of light causes a pencil to look bent when placed in a glass of water
Concave Lens	A lens that is thinner in the middle than at the edges, causing light rays to spread out (diverge) after passing through it.	A **concave lens** is used in some glasses to correct short-sightedness by spreading out light rays.
Convex Lens	A lens that is thicker in the middle than at the edges, causing light rays to come together (converge) at a focal point.	A magnifying glass uses a **convex lens** to focus light and make objects appear larger.
Retina	A layer at the back of the eye that contains light-sensitive cells, which detect light and send visual information to the brain	Light entering the eye is focused onto the **retina**, where an image is formed and processed by the brain
Mirror	A smooth, shiny surface, usually coated with a reflective material, that reflects light clearly to form images.	A periscope uses **mirrors** to reflect light, allowing people to see over obstacles
Non-luminous	An object that does not produce its own light but can be seen when it reflects light from a luminous source (e.g., the Moon).	The Moon is **non-luminous** because it reflects light from the Sun rather than producing its own
Translucent:	A material that allows some light to pass through but scatters it, so objects on the other side appear blurry (e.g., frosted glass).	Bathroom windows are often made of **translucent** glass to let light in while maintaining privacy.

Science | Inheritance| Topic Dictionary

Key term	Definition	In a sentence
Evolution	The change of inherited characteristics within a population over time through natural selection.	The **evolution** of finches on the Galápagos Islands helped Charles Darwin develop his theory of natural selection.
Variation	Difference between individuals.	Genetic **variation** within a population increases the chances of survival in changing environments.
Inherited Variation	Differences between individuals of a species due to their genetic information.	**Inherited variation**, such as blood type, is passed from parents to offspring through genes.
Environmental variation	Differences between individuals of a species due to factors in their surroundings.	The colour of a rabbit's fur can change due to **environmental variation**, like seasonal shifts in temperature.
Mutation	A change in a gene or chromosome.	A **mutation** in the DNA sequence can lead to new traits that may be beneficial, harmful, or neutral.
Adaptation	A feature of an organism's body which helps it to survive.	The long neck of a giraffe is an **adaptation** that helps it reach leaves high in trees.
Extinction	When a type of plant or animal is wiped out forever.	Dinosaurs faced mass **extinction** around 65 million years ago, likely due to a catastrophic event.
Evolution	The change of inherited characteristics within a population over time through natural selection.	Fossil records provide strong evidence for the **evolution** of species over millions of years.

Science | Speed| Topic Dictionary

Key term	Definition	In a sentence
Speed	Speed is the distance travelled per unit of time. It is how fast an object is moving. Speed is the scalar quantity that is the magnitude of the velocity vector. It doesn't have a direction.	The car's **speed** increased rapidly as it zoomed down the highway
Velocity	It is how fast an object is moving. Velocity is a vector quantity that indicates displacement, time, and direction. Unlike speed, velocity measures displacement, a vector quantity indicating the difference between an object's final and initial positions.	The cyclist maintained a steady **velocity** while racing against the wind
Acceleration	The rate of change of the velocity. Acceleration is the name we give to any process where the velocity changes. Since velocity is a speed and a direction, there are only two ways for you to accelerate: change your speed or change your direction—or change both.	The roller coaster's sudden **acceleration** thrilled the passengers
Deceleration	Is the change of velocity per second when an object slows down.	The driver applied the brakes gently to achieve smooth **deceleration**
Displacement	is an object's change in position, only measuring from its starting position to the final position.	The runner's **displacement** was 100 meters east from the starting point
Constant speed	When the speed of an object remains the same - it does not increase or decrease.	The train travelled at a **constant speed** throughout the journey
Vector	A quantity that has both magnitude and direction. It is typically represented by an arrow whose direction is the same as that of the quantity and whose length is proportional to the quantity's magnitude.	The force acting on the object was represented by a **vector** pointing upward
magnitude	The size	The **magnitude** of the earthquake was strong enough to shake buildings across the city.

Science | Electrical Circuits | Topic Dictionary

Word	Definition	In a sentence…
ammeter	A component used to measure current in electrical circuits, connected in series.	***Ammeters*** *measure current in Amps.*
ampères (amps)	The unit of measurement for current.	*The current in the circuit was 2* ***Ampères/Amps (A).***
battery	Two or more cells connected.	*A* ***battery*** *is a power source in an electrical circuit.*
cell	A single energy source that can be used to power an electrical circuit.	*A* ***cell*** *is a power source in an electrical circuit.*
charge	Particles that transfer energy in an electrical circuit.	*The SI unit for* ***charge*** *is the Coulomb.*
component	Any device in an electrical circuit.	***Components*** *in a circuit can be connected in series or parallel.*
current	The rate of flow of charge.	*The* ***current*** *in a circuit is measured using an ammeter.*
electrical conductor	A material that allows current to flow through it easily.	*Metals are* ***electrical conductors.***
electrical insulator	A material that does not allow current to flow through it easily.	*Rubber is an* ***electrical insulator.***
energy	The ability or capacity to do work.	***Energy*** *cannot be created or destroyed.*
junction	A point in a parallel circuit where the current can split.	*The different branches in a parallel circuit split at a* ***junction****.*
parallel	A circuit in which there is more than one branch through which current can flow.	*Current splits at branches in a* ***parallel*** *circuit.*
series	A circuit in which there is only one branch through which current can flow.	*Current is the same at all points in a* ***series*** *circuit.*
switch	A component that can be open or closed to control current flow.	*When a* ***switch*** *is open, the circuit is incomplete.*
voltage	The amount of energy transferred from the power source to the moving charges or from the charges to the component.	*Adding another cell can increase the* ***voltage*** *in a circuit.*
voltmeter	A component used to measure voltage in electrical circuits, connected in parallel.	***Voltmeters*** *measure voltage in Volts.*
volts	The unit of measurement for voltage.	*The voltage across the bulb was 5* ***Volts (V).***

Skills guide - graphs

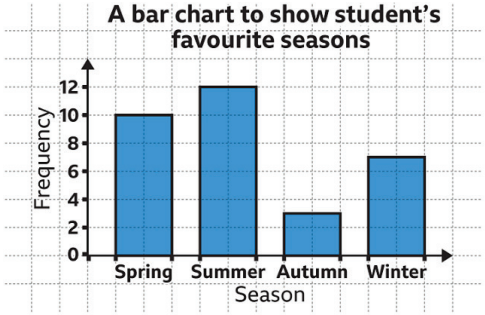
Bar graphs

Discrete data (**categorical**) can be plotted on a bar graph.

To create a bar chart:

1. Look for the largest frequency in your table.
2. Draw a **vertical axis** on your square paper or graph paper – remember to do this in pencil.
3. Choose an appropriate **scale** for this axis and label your axis up to the largest frequency.
4. Look at how many categories are needed for the horizontal axis.
5. Draw and label the **horizontal axis**, remembering to leave spaces for the gaps between the bars.
6. Draw each bar the correct height, based on the frequencies.
7. Check you have labelled each axis correctly and give your bar chart a title. 'A bar chart to show…'

Season	Spring	Summer	Autumn	Winter
Frequency	10	12	3	7



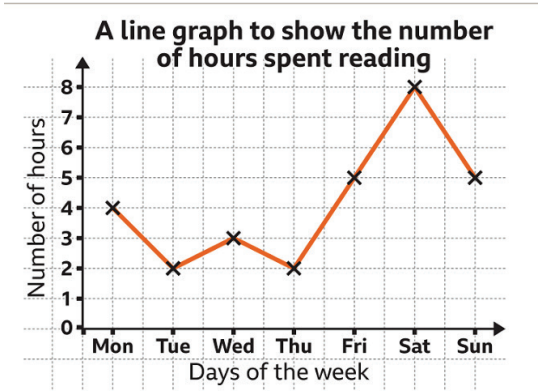
Line Graphs

Most data you meet in science is **continuous** and will require a line graph to represent.

To create a line graph:

1. Look for the largest frequency in your table.
2. Draw a **vertical axis** on your square paper or graph paper.
3. my **independent data** goes onto my x-axis and my **dependant data** goes on my y-axis.
4. Choose an appropriate scale for this axis and label your axis up to the largest frequency.
5. Draw and label the horizontal axis.
6. Plot each data point, based on the frequencies and time intervals.
7. Join each data point to the next, using straight lines.
8. Check you have labelled each axis correctly, and give your line graph a title. ' A line graph to show…'

Season	Spring	Summer	Autumn	Winter
Frequency	10	12	3	7



Skills guide - calculations

Single step calculation – **GUESS**

G: given – identify the information you are given in the question

U: unknown – what is the unknown that you have been asked to calculate?

E: Equation – given the information given and that you have been asked to find, recall an equation which links them all.

S: substitute – substitute your information into the equation

S: solve – rearrange your equation if necessary and then use your calculator to solve

Example layout

V= ?
R= 12Ω
I = 0.2 A

$$V = IR$$

$$V = 0.2 \times 12$$

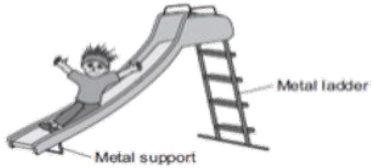
$$V = 2.4V$$

Worked example

In following the **GUESS** method, you may find that you do not have enough values to solve the equation. Typically, this means you need to do an additional calculation.

Example:

The figure below shows a slide in a children's playground.



Sergio has a mass of 30kg and goes down the slide.
G = 10 n/kg

The vertical distance from the top to the bottom of the slide is 3m.

Calculate the gravitational potential energy that Sergio has when at the top of the slide.

$E_p = m \times g \times h$

Ep = ?
m = 30kg
g = 10 N/Kg
h = 3m

Ep = m x g x h
Ep = 30 x 10 x 3
Ep = 900 J

Skills guide - practical work

Plan

Hypothesis - an idea about how something works that can be tested using experiments.

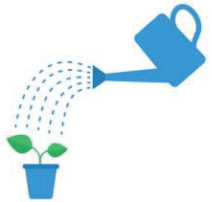
Scientists ask questions to find out more about the world, like 'how can we get more energy from the sun?' and 'how can we cure diseases?'. To answer these questions scientists do experiments.
Three important types of variables are:

- **Independent variables** – the variable that is being changed during the experiment
- **Dependent variables** – the variable being tested or measured during the experiment In an experiment.
- **Control variables** – the variables kept the same to ensure a fair test.

Worked example

Example 1

Big question 'How does water availability affect plant growth?'
Adding different amounts of water to a plant could affect its growth.



To investigate this, plant some seeds and water each plant with different amount over time.

- The **independent variable** is the volume of water given to each plant.
- The **dependent variable** is how high the plant grows.
- **Control variables** include the size of pots, the type of soil and the position in a room.

Example 2

Big question
'How does the height a ball is dropped affect how high it bounces?'

- The **independent variable** is the height of the drop.
- The **dependent variable** is how high the ball bounces.
- **Control variables** include the type of ball, the surface that it is dropped onto and the size of the ball.

Spanish | Lifestyle and Wellbeing | Topic Dictionary

Image	Key Word	Definition	In a Sentence
	**bailar**	do dancing	Normalmente prefiero **bailar.**
	**cocinar**	do cooking	Odio **cocinar** porque es aburrido.
	**esquiar**	do skiing	Me gusta **esquiar** con mi familia.
	**hacer atletismo**	do athletics	Me encanta **hacer** atletismo durante los fines de semana.
	**hacer ciclismo**	do cycling	Cada semana me gusta **hacer ciclismo.**
	**hacer la gimnasia**	do gymnastics	No me gusta **hacer la gimnasia.**
	**hacer senderismo**	do hiking	Prefiero **hacer senderismo** porque es bueno para la salud.
	**hacer teatro**	do drama	Todos los días, me encanta **hacer teatro.**
	**montar al caballo**	do horseriding	Me encanta **montar al caballo** porque es divertido.
	**patinar sobre hielo**	do ice skating	Me gusta **patinar sobre hielo** con mis amigos.

Spanish | Lifestyle and Wellbeing | Topic Dictionary

Image	Key Word	Definition	In a Sentence
	**jugar al baloncesto**	do basketball	En mi tiempo libre, me gusta **jugar al baloncesto.**
	**jugar al fútbol**	play football	Me encanta **jugar al fútbol** con mi mejor amigo.
	**jugar al hockey**	play hockey	Por la tarde, me encanta **jugar al hockey.**
	**jugar al rugby**	play rugby	Me gusta **jugar al rugby** porque es fácil.
	**jugar al tenis**	play tennis	Me encanta **jugar al tenis** pero es difícil.
	**jugar las cartas**	play cards	Todos los días, mi madre le gusta **jugar las cartas.**
	**jugar al ajedrez**	play chess	Cada noche, mi hermano le gusta **jugar al ajedrez.**

Spanish | Lifestyle and Wellbeing | Knowledge Organiser

Check for knowledge:

- ❑ I can say what I and others do (step 1)
- ❑ I can describe my daily routine (step 2)
- ❑ I can give opinions on different hobbies and activities (step 3)
- ❑ I can use future tense (step 4)

Step 1: Saying what hobbies you do

Hago deporte	*I do sport*	**Bailo**	*I dance*
Hago atletismo	*I do athletics*	**Juego a los videojuegos**	*I play videogames*
Juego al tenis	*I play tennis*	**Juego al rugby**	*I play rugby*
Veo películas	*I watch films*	**Escucho música**	*I listen to music*
Saco fotos	*I take photos*	**Todos los días**	*Every day*
Descargo música	*I download music*	**Cada semana**	*Every week*
Hago ciclismo	*I do cycling*	**De vez en cuando**	*From time to time*

Step 2: Giving opinions on hobbies

Pienso que	*I think that*		
Diría que	*I would say that*		
En mi opinión	*In my opinion*		
Es	*It is…*		
entretenido	*entertaining*	**maravilloso**	*marvellous*
aburrido	*boring*	**ridículo**	*ridiculous*
guay	*cool*	**emocionante**	*exciting*
relajante	*relaxing*	**increíble**	*incredible*
fatal	*awful*	**decepcionante**	*disappointing*
difícil	*difficult*	**estupendo**	*fantastic*

Step 3: Describing your daily routine

Me levanto	*I get up*	**Como el desayuno**	*I eat breakfast*
Me ducho	*I shower*	**Hago mis deberes**	*I do my HW*
Me visto	*I get dressed*	**Voy al colegio**	*I go to school*
Me lavo los dientes	*I brush my teeth*	**Como la cena**	*I eat dinner*
Por la mañana	*In the morning*	**A la una**	*At 1 o'clock*
Por la tarde	*In the afternoon*	**A las dos**	*At 2 o'clock*
Por la noche	*In the evening*	**A las tres**	*At 3 o'clock*

Step 4: Describing future plans

La semana que viene	*Next week*
Mañana	*Tomorrow*
El año que viene	*Next year*
voy a + infinitive	*I'm going to...*
vamos a + infinitive	*we're going to...*
salir con amigos	*go out with friends*
ir al cine	*go to the cinema*
tener una fiesta	have a party
hacer la natación	go swimming

Spanish | Lifestyle and Wellbeing | Skills Guide

Have you used...

A time marker?	A verb?	An activity?	A connective?	A opinion phrase?	An intensifier?	A reason?
Normalmente (Normally) **Una vez a la semana** (Once a week) **Dos veces a la semana** (Twice a week) **Siempre** (Always) **A menudo** (Often) **De vez en cuando** (From time to time) **Todos los días** (Every day) **Cada mañana** (Every morning) **Cada tarde** (Every afternoon / evening) **Cada noche** (Every night)	**hago** (I do) **hace** (he/she does) **hacen** (they do)	**equitación** (f) (horse-riding) **natación** (f) (swimming) **vela** (f) (sailing) **gimnasia** (f) (gymnastics) **esquí** (m) (ski) **atletismo** (m) (athletics) **ballet** (m) (ballet) **ciclismo** (m) (cycling) **patinaje** (m) (skating) **yoga** (m) (yoga) **judo** (m) (judo) **surf** (m) (surfing)	**porque** (because) **dado que** (because) **pero** (but) **sin embargo** (however) **y** (and)	**en mi opinión** (in my opinión) **en su opinión** (in his / her opinión) **en su opinión** (in their opinión) **pienso que** (I think that) **piensa que** (he/she thinks that) **piensan que** (they think that) **creo que** (I think that) **cree que** (he/she thinks that) **diría que** (I would say that/(he / she would say that) **es** (it is) **no es** (it isn't)	**muy** (very) **un poco** (a bit) **bastante** (quite) **demasiado** (too)	**fácil** (easy) **interesante** (interesting) **genial** (great) **divertido / a** (fun) **relajante** (relaxing) **emocionante** (exciting) **malo / a** (bad) **difícil** (difficult) **aburrido / a** (boring) **peligroso / a** (dangerous) **agotador / a** (tiring)
	juego (I play) **juega** (he/she plays) **juegan** (they play)	**al fútbol** (football) **al voleibol** (volleyball) **al golf** (golf) **al baloncesto** (basketball) **al críquet** (cricket) **al tenis** (tennis) **al bádminton** (bádminton) **al hockey** (hockey) **al rugby** (rugby)					

Example: Una vez a la semana, hago equitación porque en mi opinión es muy emocionante.

(Once a week, I do horseriding because in my opinion it is very exciting)

Spanish | Lifestyle and Wellbeing | Skills Guide

Success Criteria:

Have you **introduced yourself**?

- ❑ Can you describe **what** you like?
- ❑ **Why** do you like the sport?
- ❑ Can you describe your **dislikes?** Have you used a variety of **adjectives?** Could you add an **intensifier**?
- ❑ Can you describe **your friend's hobbies?** Have you included a range of **opinion phrases?**
- ❑ Can you include where you **would like** to do next weekend? Have you used any **complex structures?**

Simple answer:

Me llamo Pablo. Juego al voleibol y hago atletismo. También, me encantan los deportes y cada fin de semana, me gusta jugar al baloncesto con mis amigos.

Connectives used to link ideas

Variety of **adjectives**

Extended answer:

Me llamo Paula. Soy bastante deportivo! En el invierno, me encanta esquiar, pero no me gusta patinar sobre hielo porque es muy difícil. Tengo un amigo que se llama Luíz. Usualmente, juega al ajedrez y le encanta descargar música, especialmente la música pop. Sin embargo, no le gusta ver la tele porque según él, es bastante aburrido.

Intensifiers used to add detail

Fancy phrase used to upgrade answer.

Spanish | Environmental problems | Topic Dictionary

Image	Key Word	Definition	In a Sentence
	**el medio ambiente**	the environment	Estoy muy preocupado por **el medio ambiente.**
	**el clima**	the climate	**El clima** se ve afectado por el tráfico.
	**el planeta / la tierra**	the planet /the earth	**El planeta** está en peligro.
	**la polución/la contaminacion**	the pollution	Hay que organizar manifestaciones contra **la contaminación**
	**el tráfico**	the traffic	El medio ambiente está amenazado por **el tráfico.**
	**la sequía**	the drought	**La sequía** es el problema más importante.
	**la basura**	the rubbish	Debemos tirar **la basura** en el basurero
	**las inundaciones**	the flooding	En mi país, hay muchas **inundaciones**
	**el cambio climático**	the climate change	¿Cómo organizarse frente al **cambio climático**?
	**el calentamiento global**	the global warming	Podemos detener el **calentamiento global.**
	**los animales en peligro**	the animals in danger	En todo el mundo, **los animales están en peligro** de extinción.

Spanish | Solutions | Topic Dictionary

Image	Key Word	Definition	In a Sentence
	**Para ayudar al planeta**	to help the planet	**Para ayudar al planeta**, debemos reciclar más
	**Es necesario reducir la contaminación**	It is necessary to reduce pollution	Para salvar el planeta, **es necesario reducir la contaminación**.
	**Reciclo más**	I recycle more	Actualmente, estoy reciclando más, especialmente el plástico.
	**Separo la basura**	I sort the rubbish	Todos los días **separo la basura** para salvar el planeta.
	**Cuido el planeta**	I protect the planet	**Cuido el planeta** siendo vegetariano**.**
	**Reutilizo las bolsas de plástico**	I reuse plastic bags	Protejo el planeta **reutilizando bolsas de plástico.**
	**Compro productos ecológicos / verdes**	I buy green products	Mi familia y yo siempre **compramos productos ecológicos/ verdes**
	**Uso el transporte público**	I use public transport	Para ir al colegio, **uso el transporte público.**
	**Camino más seguido**	I walk more often	**Camino más seguido** para reducir la contaminación.
	**Soy voluntario**	I volunteer	Para ayudar a la gente, **soy voluntario**.

Spanish | Environment | KO

Adverbs of frequency	Activities	…because it is important…	Justification
Siempre (always) **Todos los días** (every day) **A diario** (every day) **Cada día** (every day) **Cada mañana** (every morning) **A menudo** (often) **A veces** (at times) **De vez en cuando** (sometimes) **Raramente** (rarely) **Casi nunca** (almost never) **Nunca** (never)	**reciclo en casa** (I recycle at home) **reutilizo las bolsas de plástico** (I reuse plastic bags) **apago las luces** (I switch off the lights) **desconecto aparatos inactivos** (I disconnect inactive devices) **uso mi bici** (I use my bike) **uso el transporte público** (I use public transport) **camino** (I walk) **tomo una ducha en lugar de un baño** (I have a shower instead of a bath) **separo la basura**(I separate the rubbish) **utilizo bombillas ecológicas** (I use energy saving lightbulbs) **compro productos locales** (I buy local products) **compro productos orgánicos** (I buy organic products) **protesto en un grupo ecológico** (I protest in a green group)	**...porque es importante…** (because it is important) **…dado que es esencial…** (given that it is essential) **…ya que es imprescindible…** (since it is essential)	**ahorrar energía** (to save energy) **ahorrar agua** (to save water) **no malgastar energía** (to not waste energy) **no malgastar agua** (to not waste water) **no malgastar nuestros recursos naturales** (to not waste our natural resources) **proteger el medio ambiente** (to protect the environment) **cuidar** el planeta (to look after the planet) **no dañar** el medio ambiente (not to harm the environment)

Example: A menudo, separo la basura dado que es essencial protéger el medio ambiente.

(Often, I separate the rubbish given that it is essential to protect the environement

Spanish | Environment | Skills Guide

Success Criteria:

- ❑ Can you talk about environmental problems?
- ❑ Can you give **opinions** and **reasons** about **the environment?** Have you used the correct **word order** and **adjective endings**?
- ❑ Can you suggest **solutions**? Can you use justified opinions?
- ❑ Can you add another tense and time markers? Could you add an **intensifier**?

Simple answer:

Me interesa mucho el medio ambiente y también me gusta la naturaleza. En mi ciudad hay mucha contaminación. Intento reciclar residuos y utilizar el transporte público. Creo que necesitamos reciclar más.

Connectives used to link ideas

Intensifiers used to add detail

Fancy phrases to elevate your work

Time marker

Opinion phrases used to upgrade answer.

Extended answer:

Me interesa mucho el medio ambiente y también me gusta la naturaleza. Yo diría que en mi ciudad hay mucha contaminación. En mi opinión proteger el medio ambiente es importante. Intento reciclar, cuando puedo, residuos, vidrio y plástico y además uso el transporte público. Cada persona debe hacer un esfuerzo para salvar el planeta. En el futuro planeo ser voluntario en una asociación que ayuda a las personas que viven en la calle.

anthem

Smarks
ACADEMY