Knowledge Goals Homework Booklet (Summer)

Year 9 and 10

Name: _____

Settlebeck School

Respect | Responsibility | Aspiration

Subject Index

Subject	Page Number
Art and Design	9
Design and Technology	11
Drama	13
English	15
Food Nutrition and Preparation	31
French	33
Geography	35
History	37
Mathematics	39
Media	46
Music	48
Physical Education	52
PSHE	54
Religious Studies	56
Science	58
Sport	66
Tier 2 words	70

Suggested Homework Schedule
(30 minutes of independent study per subject each week)

	Subjects to Revise	
Monday	Science	Option 2
Tuesday	Mathematics	Option 2
Wednesday	Science	Tier 2 Vocab
Thursday	English	Option 3
Friday	Option 3	Mathematics
Saturday	Option 1	English
Sunday	Option 1	Mathematics

To help you get organised, we have planned out your weekly homework slot for each subject.

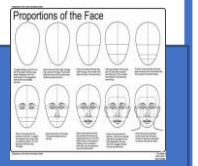
Subject Homework Frequency Information

Subject	Homework
Art	Fortnightly
Computer Science	Fortnightly
Design and Technology	Fortnightly
Drama	One per half term
English	Weekly
Food Technology	Weekly
French	Weekly
Geography	Fortnightly
History	Fortnightly
Mathematics	Weekly
Music	Once per half term
PSHE	Once per half term
Physical Education	One per half term
Religious Studies	Weekly
Science	Weekly

HOW TO SELF TEST

Mind mapping

- Mind mapping is simply a diagram to visually represent or outline information.
- Use information gathered from your Knowledge Goals booklet to create mind maps, make sure to use colour and images and keep writing to the bare minimum.



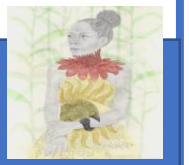
HOW TO MIND MAP VIDEO

Parent information on knowledge retrieval:

Flash cards

Use your Knowledge Goals booklet to make flash cards. Write the questions on one side and on the other record the answer.

Test yourself or work with a friend to make sure you know all of the key information for each topic.



HOW TO FLASH CARD VIDEO

How should students use the Knowledge Goals booklets?

Your **Knowledge Goals** booklet provide the essential knowledge that you need to learn in each subject this half term.

You are expected to spend **30 minutes per subject per week** 'learning' the content.

You will be assessed during lessons using 'low stake' quizzing.

Your teacher may choose to set you additional homework.

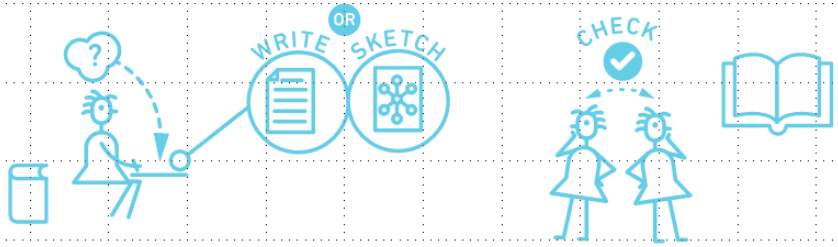
How can parents support?

- Read through the booklet with your child – if you don't understand the content then ask them to explain it to you – 'teaching' you helps them to reinforce their learning.
- Test them regularly on the spellings of key words until they are perfect. Get them to make a glossary (list) of key words with definitions or a list of formulae.
- Read sections out to them, missing out key words or phrases that they have to fill in. Miss out more and more until they are word perfect.

Retrieval Practice

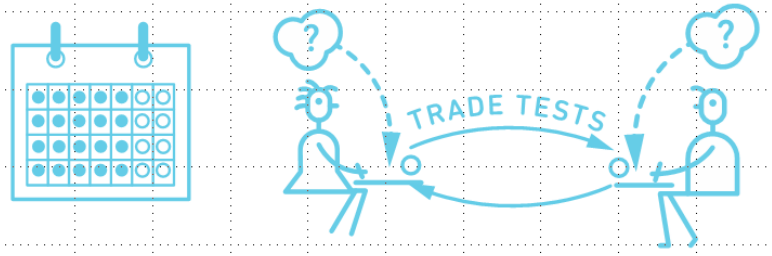
HOW TO DO IT

Put away your class materials, and write or sketch everything you know. Be as thorough as possible. Then, check your class materials for accuracy and important points you missed.



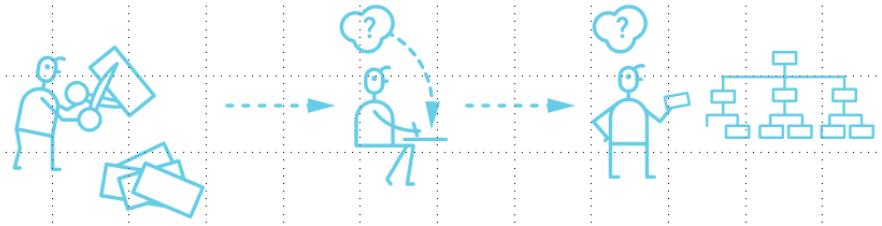
HOW TO DO IT

Take as many practice tests as you can get your hands on. If you don't have ready-made tests, try making your own and trading with a friend who has done the same.



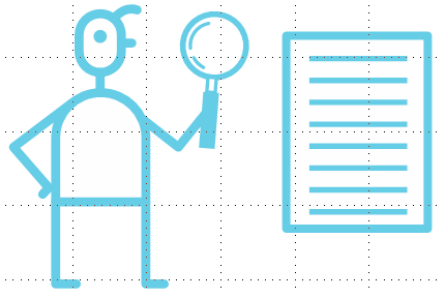
HOW TO DO IT

You can also make flashcards. Just make sure you practice recalling the information on them, and go beyond definitions by thinking of links between ideas.



HOLD ON!

Retrieval practice works best when you go back to check your class materials for accuracy afterward.

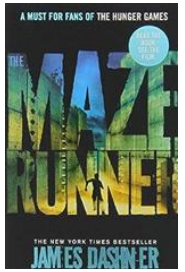


Literacy: Tier 2 Vocabulary

Tier 2 Vocabulary		
	Key word	Definition
1	adapt	To make suitable to requirements or conditions; adjust or modify fittingly.
2	escalate	To increase in intensity, magnitude, etc.
3	flaw	A feature that mars the perfection of something; defect; fault.
4	mitigate	To lessen in force or intensity, as wrath, grief, harshness, or pain; moderate.
5	partition	A division into or distribution in portions or shares.
6	sparse	Thinly scattered or distributed.

These words are all tier 2 words; in other words, they are seen as 'academic vocabulary' and if you know them, can understand them and use them, you will do better in your exams and be able to communicate more precisely and effectively in life.

DEAL Year 9 (Summer Term)

Book Title	Author	Genre	Overview	Image
Maze Runner	James Dashner	Science Fiction (Dystopian Adventure)	The first three books in the pulse pounding Maze Runner series! When the doors of the lift crank open, the only thing Thomas remembers is his first name. But he's not alone. He's surrounded by boys who welcome him to the Glade - a walled encampment at the centre of a bizarre and terrible stone maze. But the maze is just the beginning ...	
British Values	Tolerance	Individual Liberty	Rule of Law	Democracy	Mutual respect
Touching the Void	Joe Simpson	Non-fiction Adventure	Touching the Void is a heart stopping, true account of Joe Simpson's terrifying adventure in the Peruvian Andes. He and his climbing partner, Simon, reached the summit of the remote peak, Siula Grande. A few days later, Simon staggered into base camp, exhausted and frost-bitten, with news that Joe was dead. What really happened to Joe makes not only an epic of survival but a compelling testament of friendship.	
British Values	Tolerance	Individual Liberty	Rule of Law	Democracy	Mutual respect

DEAL Year 10 (Summer Term)

Book Title	Author	Genre	Overview	Image
All Quiet on the Western Front	Erich Maria Remarque	War Novel	In 1914 a room full of German schoolboys, fresh-faced and idealistic, are goaded by their schoolmaster to troop off to the 'glorious war'. With the fire and patriotism of youth they sign up. What follows is the moving story of a young 'unknown soldier' experiencing the horror and disillusionment of life in the trenches.	
British Values	Tolerance	Individual Liberty	Rule of Law	Democracy	Mutual respect
The Woman in Black	Susan Hill	Gothic Horror Novel (Ghost Story)	The Woman in Black is a horror story about a young lawyer who encounters a vengeful ghost. Arthur Kipps is sent to a remote village in England to sort out the affairs of a deceased woman, but he soon discovers that her house is haunted by a mysterious woman in black. The ghost terrorizes the villagers and kills their children, and Arthur must find a way to stop her before she claims his own son.	
British Values	Tolerance	Individual Liberty	Rule of Law	Democracy	Mutual respect

British Values

British Values: What They Mean for Us

British values are the important ideas that help make the UK a fair, safe, and respectful place for everyone. These values shape how we live together and treat each other. Here's a simple breakdown of the key British values:

Democracy

- Democracy is all about having a voice. In the UK, we get to vote in elections to choose our leaders and decide on important issues. Everyone's opinion matters!
- At school, this means having the chance to express your views, take part in decisions, and have your voice heard.

The Rule of Law

- The rule of law means that everyone must follow the law, no matter who they are. Laws help keep us safe and ensure that everyone is treated fairly.
- At school, we follow rules that help keep our environment respectful and safe for everyone.

Individual Liberty

- Individual liberty is about having the freedom to make your own choices, as long as they don't harm others. It's about having the freedom to think for yourself, express your opinions, and be who you are.
- At school, you can express yourself, pursue your interests, and have the freedom to make choices about your learning.

Mutual Respect and Tolerance

- Mutual respect means valuing other people's opinions, feelings, and beliefs, even if they're different from your own. Tolerance is about accepting people for who they are and being open to different cultures, ideas, and traditions.
- At school, we show respect by listening to each other, understanding differences, and creating a welcoming and friendly environment for everyone.

Equality

- Equality means treating everyone fairly, no matter their background, gender, race, or beliefs. Everyone should have the same opportunities to succeed.
- At school, we support equality by making sure everyone has the same chances and is treated with respect, regardless of who they are.

How British Values Apply to Us at Settlebeck

At Settlebeck, we bring British values to life by encouraging respect for each other, celebrating diversity, and working together to create a positive school community. These values help us create a safe and supportive space where we can all learn and grow, respecting each other's differences and making sure everyone feels included. By living these values, we can all contribute to making Settlebeck a great place to learn, where everyone has the chance to thrive!

Year 9 and 10 Knowledge Goals: Grid Portraits – Chuck Close (A)

Proportions of the face – General rules

When drawing a portrait, understanding the basic proportions of the face can be crucial for achieving a realistic and well-balanced representation. Keep in mind that these proportions can vary among individuals, and there is room for artistic interpretation. However, the following are general guidelines for the proportions of a face in a traditional, realistic portrait:

Eyes:
Typically, the distance between the eyes is approximately one eye's width. The width of one eye can also be used to measure the space between the eyes.

Nose:
The nose is often centred between the eyes. Its length is roughly equal to the distance from the eyes or slightly less.

Mouth:
The mouth is usually located halfway between the bottom of the nose and the chin. Its width is often equivalent to the distance between the centres of the eyes.

Ears:
The top of the ears align with the eyebrows, and the bottom of the ears align with the bottom of the nose.

Hairline and Forehead:
The hairline typically starts above the eyebrows. The forehead extends upward from the eyebrows to the hairline.

Chin:
The bottom of the chin is usually about halfway between the bottom of the lower lip and the bottom of the nose.

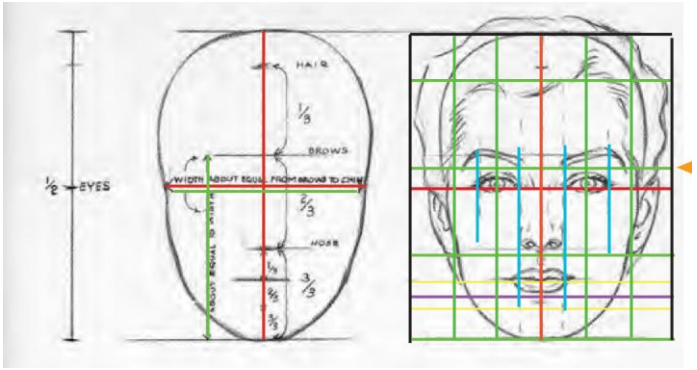
Face Length:
The overall face length, from the hairline to the chin, is often divided into thirds: hairline to eyebrows, eyebrows to bottom of the nose, and bottom of the nose to the chin.

Jawline:
The jawline is typically wider than the forehead and narrows toward the chin.

Remember, these are general guidelines, and there is a considerable range of natural variation. Additionally, individual features may vary, and proportions can be adjusted to capture the unique characteristics of a person's face. Observational skills and practice are essential for honing your ability to capture accurate facial proportions in portrait drawing.

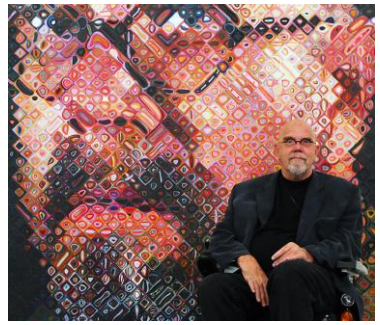
[Chuck Close Gallery]

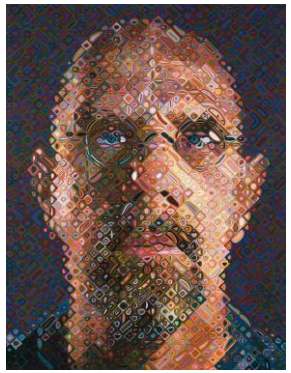
Proportions of the face, Visual guide.



Artist: Chuck Close

[Getting to Know - Chuck Close – YouTube]

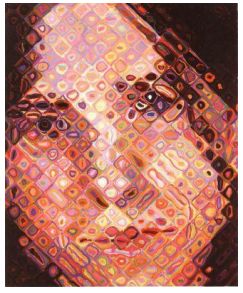


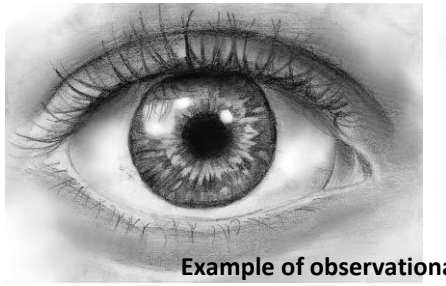


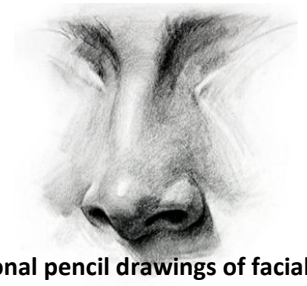
You Tube tutorials

[How to Draw a Face for Kids – YouTube]
[how to draw faces, eyes, nose, mouth | step by step tutorial – YouTube]
[How to Draw a Nose – YouTube]
[How to Draw Eyes – YouTube]
[How to Draw a Mouth – YouTube]
[How to use the Grid Method with a Drawing of Chuck Close as an Example - YouTube]

Example of a grid portrait.







Example of observational pencil drawings of facial features.

Year 9 and 10 Knowledge Goals: Grid Portraits – Chuck Close (A)

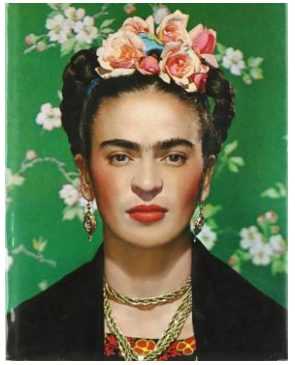
Key Vocabulary

1.Portrait: A representation of a person, usually focusing on the face and its expression.
2.Proportion: The relationship of one part of a composition to another in terms of size, quantity, or degree.
3.Composition: The arrangement of visual elements in a work of art, including the placement and balance of objects or subjects.
4.Symmetry: Balanced arrangement of parts on either side of a central point or axis.
5.Asymmetry: Lack of symmetry or equal balance between elements.
6.Facial Features: Elements such as eyes, nose, mouth, ears, and eyebrows that make up the face.
7.Shading: The use of light and dark areas to create the illusion of form and depth.
8.Highlight: The brightest area in an artwork, often indicating where light is directly hitting the subject.
9.Shadow: The dark areas in an artwork created by the blocking of light.
10.Profile: A side view of the face or a drawing that represents this view.
11.Foreground: The part of a picture plane that appears closest to the viewer.
12.Background: The part of a picture plane that appears farthest from the viewer.
13.Expression: The depiction of emotion or mood in the face.
14. **Self-Portrait**: A portrait an artist creates of themselves.
15. **Grid**: In art and design, a grid is a system of intersecting lines used to guide the placement of elements within a composition. It helps maintain a sense of structure and alignment. Grids are commonly used in graphic design, web design, and layout design to organize content.

QR code	Link to quiz
	https://forms.office.com/e/Nw5d1JFvkt?origin=lprLink Chuck Close Portrait Quiz Link

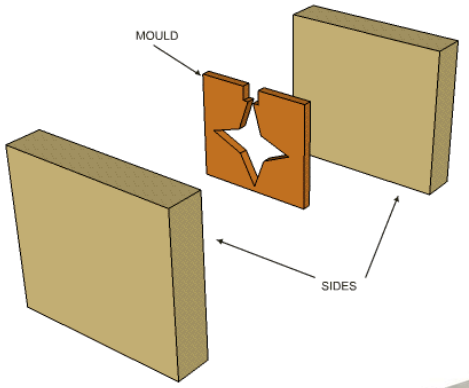
Famous Portrait artists:

There have been many famous portrait artists throughout history who have made significant contributions to the field of portraiture. Here are some notable portrait artists from various time periods:
Leonardo da Vinci (1452–1519): Leonardo da Vinci, the Renaissance polymath, created some of the most iconic and enigmatic portraits, including the famous "Mona Lisa."
John Singer Sargent (1856–1925): An American expatriate artist, Sargent was one of the leading portrait painters of the late 19th and early 20th centuries. His portraits captured the personalities of the subjects with virtuosity.
Édouard Manet (1832–1883): A French modernist painter, Manet's portraits often challenged traditional conventions. His portrait of "Olympia" is particularly famous.
Vincent van Gogh (1853–1890): Although best known for his post-impressionist landscapes, Van Gogh created many compelling self-portraits that are celebrated for their emotional intensity.
Frida Kahlo (1907–1954): A Mexican artist known for her self-portraits, Kahlo's paintings often depicted her physical and emotional pain. "Self-Portrait with Thorn Necklace and Hummingbird" is a notable example.
Chuck Close (1940–2021): A contemporary American artist, Close is famous for his large-scale portraits often using a grid format. Despite facing physical challenges, he created intricate and detailed works.

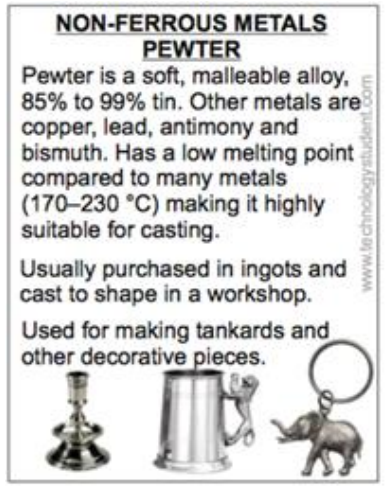



Year 9 and 10 Knowledge Goals: : Design and Technology

Pewter Casting



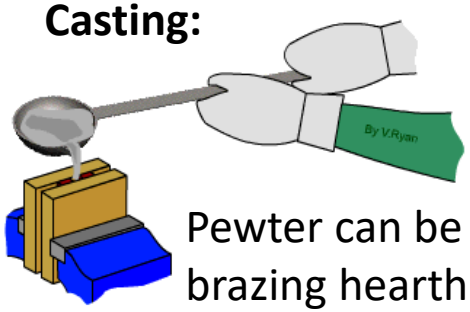
MDF mould made on the laser cutter with a 2D Design CAD file.



Pewter ingot bought in 1kg bars

3 part mould, back, front and shape with sprue hole to pour through

Casting:



Pewter can be cast using a brazing hearth and spoon or the safer melting cabinet.

Polishing:

Step 1: Big to small grit aluminium oxide

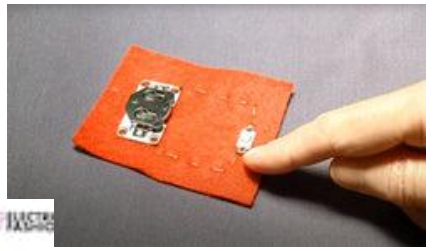
Step 2: wire wool.

Step 3: Metal polish

E - Textiles

Creating a simple stitched circuit using conductive thread.

Conductive thread



Battery

Switch

Battery Holder

LED

Year 9 and 10 Knowledge Goals: Design and Technology

Tier 3 Vocabulary		
Key word		Definition
1	Pewter	A soft malleable alloy
2	Ingot	A block of steel, gold, silver, or other metal, typically oblong in shape.
3	Mould	A hollow container used to give shape to molten or hot liquid material when it cools and hardens.
4	Sprue	A channel through which metal or plastic is poured into a mould.
5	Cast	An object made by shaping molten metal or similar material in a mould.
6	Conductive	Able to conduct things such as heat and electricity.
7	Switch	A device for making and breaking the connection in an electric circuit.
8	LED	Light emitting diode.
9	Battery holder	A metal pocket shaped clip which holds a battery in place.
10	Thermochromic	Changes colour with heat.

Notes:

Quiz QR Code	Quiz Link
	Link

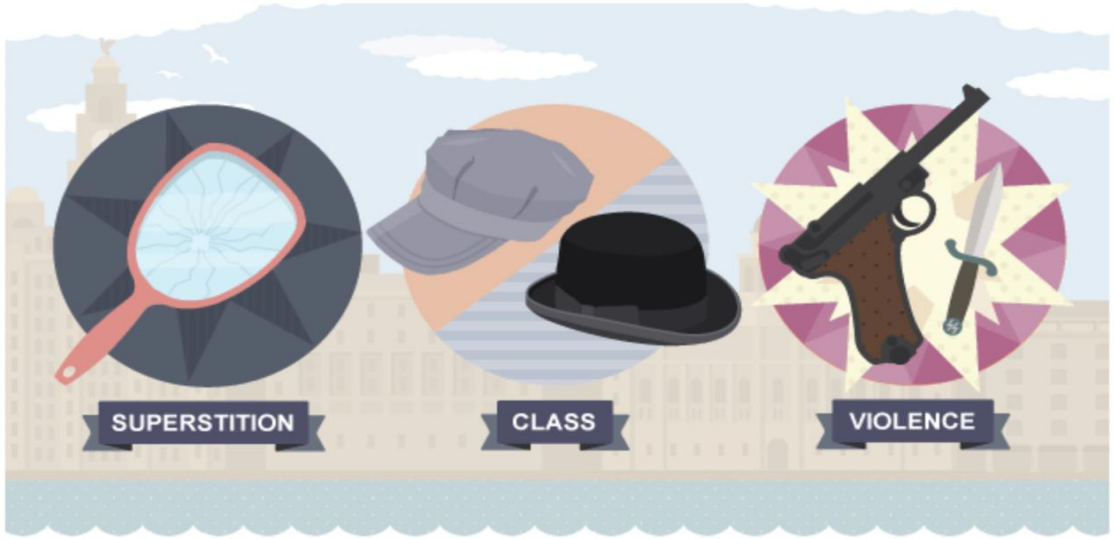
Year 9 and 10 Knowledge Goals: Drama (Blood Brothers)

Summary

Blood Brothers, a musical by Liverpudlian playwright Willy Russell, revolves around twin boys (Mickey and Edward) who are separated at birth and brought up in completely different environments in the city. The play, set in the 1960s, is divided into two acts, with songs throughout.

Mickey is brought up with his seven older siblings by his struggling single mother, Mrs Johnstone. His twin brother, Edward, however, is brought up as the only child of the wealthy Lyons family, who live nearby, after Mrs Lyons persuaded Mrs Johnstone to hand over one of her twins at birth. Mickey and Edward don't meet each other until they're seven years old, but immediately become best friends and blood brothers. The bond continues when the boys are teenagers and both live in the countryside, despite them both being in love with Mickey's neighbour Linda. However, as they get older, the huge difference in their backgrounds pulls them apart and eventually leads to their tragic deaths.

Themes

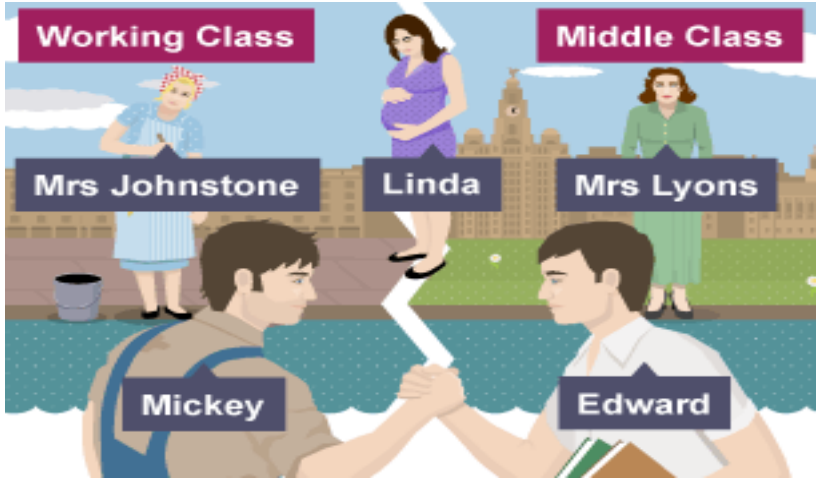


Characters

Main characters
- Mickey Johnstone
- Edward Lyons
- Mrs Johnstone
- Mrs Lyons

Secondary characters
- Linda
- Narrator

Minor characters
- Sammy
- Mr Lyons



Year 9 and 10 Knowledge Goals: Drama (Blood Brothers)

Tier 3 Vocabulary		
Key word		Definition
1	Vocal projection	The strength of speaking or singing whereby the voice is used powerfully and clearly.
2	Facial expressions	A way to show emotions and feelings using your face.
3	Body language	A way to show emotions and feelings using your body.
4	Gait	The way you walk.
5	Stance	The way you stand using your legs and feet.
6	Posture	The way you stand using your body.
7	Musical Theatre	Musical theatre is a form of theatrical performance that combines songs, spoken dialogue, acting and dance.
8	Superstition	A belief or practice resulting from ignorance, fear of the unknown, trust in magic or chance, or a false conception of causation.
9	Plot	the main events of a play, novel, film, or similar work.
10	Tension	a state of uncertainty and lack of knowledge, sometimes also referring to the state of waiting.
11	Climax	the highest point of tension in a storyline, often depicted by a confrontation between the protagonist and antagonist.
12	Genre	the type of story being told.
13	Style	How the story is presented on stage.

Notes:

Quiz QR Code	Quiz Link
	Link

Year 9 and 10 Knowledge Goals: Modern Short Stories and Imaginative Writing

	Short Story Structure
1	Narrative hook, dramatic hint or intriguing question.
2	Exposition or opening – who, what, where, when?
3	Rising Action - build up and development
4	Climax or dramatic peak – description
5	Falling Action – leading to the resolution
6	Resolution or denouement

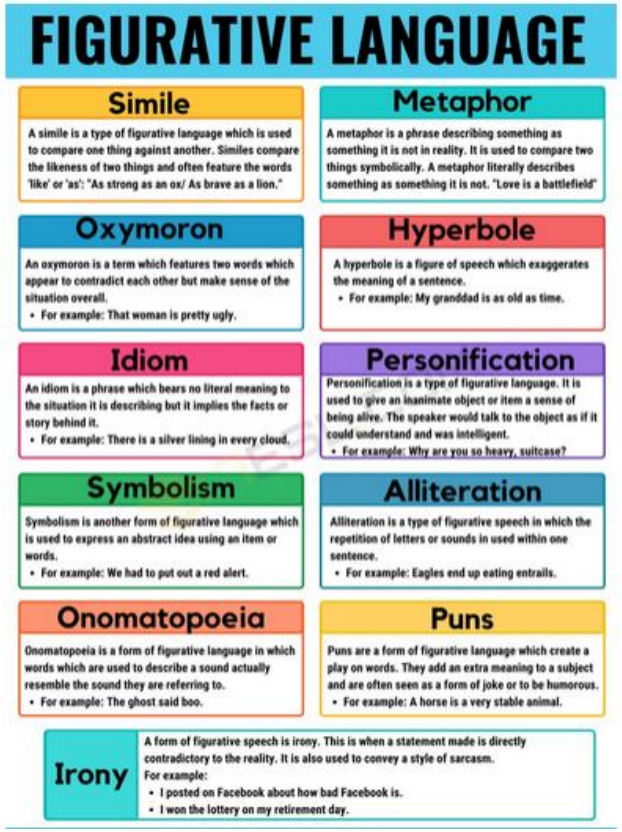
Picture Story Structure

Zoom in on a fine detail **in the present**; a certain aspect of a character, setting, etc.

Zoom out/ link back to your opening, go back to a particular detail **about the weather** and describe how it has changed/stayed the

'Drop' the reader right into the scene, **describe the weather to create a particular atmosphere**

Shift the focus **to a different time using a flashback**



Vocabulary Continuum

angry

miffed irritated displeased annoyed cross raging irate furious livid incandescent

\+ _____ -

strolled ambled wandered rambled trudged plodded staggered stomped prowled

walked

Year 9 and 10 Knowledge Goals: Modern Short Stories and Imaginative Writing

CREATIVE SENTENCE STRUCTURES TO LEARN:

1. Comma Sandwich

The expanse of trees, which shifted in darkness, fully surrounded me.

The sun, which had been absent for days, shone steadily in the sky.

2. Colon Clarification

There was the faintest of sounds that seemed to touch the space between the trees: it was my own breathing.

A strange hint of something filled my nostrils and made my stomach lurch: it was blood.

3. Three Verb Sentence

The hot air balloon billowed, swelled, rose up and up, high into the sky.

I pushed, crashed, smashed my way through the army of nettles.

4. Adjective Attack

Steep and intimidating, the sudden rise of the forest floor ahead of me caused me to pause.

Cold and hungry, I waited for someone to take pity on me.

5. Three Adjective Punch

Fraught, tired, confused, I was no longer the same person who walked innocently into the forest.

Ruthless, dangerous, lethal, the animal leaps for its prey.

6. Present participle start (–ing)

Having no possibility of getting back to where I came from, the way ahead seemed suddenly less daunting.

Knowing I had no choice about it, I decided to agree with her.

7. Past participle start (–ed)

Wracked with fear, I crept slowly towards the door.

Scared for her life, I searched frantically for the key.

8. Simile Start

Like a bird knocked out of the sky, I was thrown to the ground as though for the last time.

Like a ghost caught in a fan, I spun round and round on the roundabout.

9. Double Adverb Snap

Slowly, carefully, I scrambled down the sheer rockface.

Cautiously, apprehensively, I opened the official looking letter.

10. Double Simile Sentence

It could have been Esther's, as black as jet, as dark as the night.

It's hard to describe how I felt - like an object no longer of use, like a parcel packed up in string and brown paper.

	Sentence Types
1	**Minor or fragment sentence.** An incomplete sentence without a verb and/or subject. Nothing. Silence.
2	**Simple Sentence** A main clause with a verb and subject. She was gone. It was over.
3	**Compound Sentence** Two simple sentences linked by co-ordinating conjunctions. She was gone but it was not over.
4	**Complex Sentence** A sentence which contains a main clause and a subordinate clause. Although she was gone, it was not over.

Year 9 and 10 Knowledge Goals: Modern Short Stories and Imaginative Writing

Sylvia Plath (1955)
'Paula Brown's Snowsuit'

Why should you read Sylvia Plath?
https://www.youtube.com/watch?v=wCWl8ZIgCHk
PDF of story
superman-and-paula-browns-new-snowsuit-text.pdf

Michele Roberts (1993)
'Your Shoes'

PDF of story
your-shoes-michele-roberts.pdf

Alice Walker (1973)
'The Flowers'

PDF of story
The-Flowers-Alice-Walker.pdf

What is lynching?
https://www.youtube.com/watch?v=MKz5BV7k0Tw

Jean Rhys (1976)
'I used to live here once'

PDF of story
I Used to Live Here Once.pdf
What makes this story great?
https://www.youtube.com/watch?v=0XRrj_0H2KU&t=108s

Year 9 and 10 Knowledge Goals: Modern Short Stories and Imaginative Writing

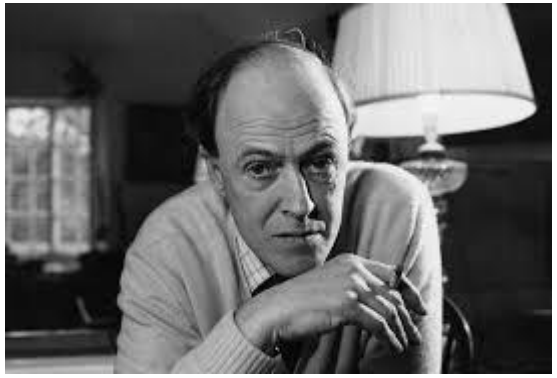
Tier 3 Vocabulary		
	Key Word	**Definition**
1	first person narrative	A type of writing where the storyteller tells events from their point of view using 'I' or 'We'.
2	third person narrative	A type of writing where the storyteller tells events from a more distant position using 'He', 'She' or 'They'.
3	protagonist	The main character or hero.
4	antagonist	The enemy of the main character.
5	narrative hook	A device at the start of the story which draws readers into the narrative.
6	foreshadowing	A literary device in which the author hints at or suggests future events in the story.
7	in medias res	Beginning a narrative in the middle of the action perhaps by using direct speech.
8	exposition	The introduction or beginning of a story that reveals important background information.
9	rising action	All the events that happen in the story before the climax or dramatic peak.
10	climax	The point in the narrative where the tension, excitement, or stakes reach the highest level.
11	falling action	Everything that happens after the climax of the story and leads to the resolution.
12	resolution	The conclusion of a story's plot
13	cyclical ending	The end of the story mirrors the opening in some way.
14	sensory language	Language that appeals to the five senses: sight, sound, touch taste and smell
15	figurative language	A collect term for non-literal phrases like similes, metaphors and personification.

Year 9 and 10 Knowledge Goals: Modern Short Stories and Imaginative Writing

Tier 2 Vocabulary		
Key word		**Definition**
1	flaunted	to show off
2	perpetual	never ending or changing, endless
3	incognito	concealing your true identity, in disguise
4	solemn	not cheerful, serious
5	crude	rude, vulgar, rough or unpolished
6	truancy	non-attendance at school
7	gloat	to boast or brag,
8	vulgar	rude, crude,
9	suburb	an outlying district of a city
10	benign	kind, caring, friendly, harmless
11	fragrant	having a pleasant or sweet smell
12	debris	rubbish or remains
13	felled	to cut down a tree
14	instinctively	Without conscious thought, by natural instinct

Year 9 and 10 Knowledge Goals: Modern Short Stories and Imaginative Writing

Other great short stories to read and enjoy...



Roald Dahl (1953)
'Lamb to the Slaughter'

PDF of the story
https://theshortstory.co.uk/devsitegkl/wp-content/uploads/2015/06/Short-stories-Roald-Dhal-Lamb-to-the-Slaughter.pdf
Audiobook of the story
https://www.youtube.com/watch?v=fpyVl3XKVls

Kurt Vonnegut (1961)
'Harrison Bergeron'

PDF of the story
https://www.tnellen.com/westside/harrison.pdf
Reading of the story
https://www.youtube.com/watch?v=uP_YwwwIScU
Film version
https://www.youtube.com/watch?v=sU3myZ3H6u0

Kate Chopin (1894)
'The Story of an Hour'

PDF of the story
https://www.uptonhigh.co.uk/attachments/download.asp?file=1938&type=pdf

Audiobook of the story
https://www.youtube.com/watch?v=D9S4btsmp70

Elizabeth Taylor (1972)
'The Fly Paper'

Audio Version of the Story
https://www.youtube.com/watch?v=v96F4bW74Kk

The Fly Paper TV Version
https://www.dailymotion.com/video/x3muppq

Year 9 and 10 Knowledge Goals: Spoken Language and Contentious Issues

What makes a great presentation?

- ✓ **Fluent** – It flows easily and at a good pace, without hesitations, linguistic errors, repetitions, or uncertainty in the use of vocabulary, grammar and punctuation.
- ✓ **Personal** – It expresses, or appears to express, the convictions of the speaker, whose personality comes across in the choice of language.
- ✓ **Appropriate** – It suits the situation the speaker is in, or at least it's an understandable reaction to it.
- ✓ **Heightened** – It displays features of artistry that go beyond the linguistic norms we encounter in everyday informal conversation.
- ✓ **Clear** – It uses words that are known to the listeners, and puts them into sentences in a way that is easy to understand.
- ✓ **Memorable** – It contains elements that stick in the mind so that if asked, 'what did X say?' it's possible for a listener to repeat tiny bits of it.
- ✓ **Reactive** – it shows awareness of the interest levels and listening abilities of the audience, and responds or adapts to any feedback.

General criteria

To be awarded a Pass, Merit or Distinction a student must:

- be audible, and
- use spoken Standard English which, for the purposes of the spoken language assessment, means that a Learner must:
  - be intelligible, and
  - generally use language appropriate to the formal setting of the presentation.

Pass	Merit	Distinction
In addition to the general criteria, to be awarded a Pass a Learner's performance in his or her spoken language assessment must meet all of the following criteria – • expresses straightforward ideas/information/ feelings, • makes an attempt to organise and structure his or her presentation, • makes an attempt to meet the needs of the audience, and • listens to questions/feedback and provides an appropriate response in a straightforward manner.	In addition to the general criteria, to be awarded a Merit a Learner's performance in his or her spoken language assessment must meet all of the following criteria – • expresses challenging ideas/information/feel ings using a range of vocabulary, • organises and structures his or her presentation clearly and appropriately to meet the needs of the audience, • achieves the purpose of his or her presentation, and • listens to questions/feedback responding formally and in some detail.	In addition to the general criteria, to be awarded a Distinction a Learner's performance in his or her spoken language assessment must meet all of the following criteria – • expresses sophisticated ideas/information/feeling s using a sophisticated repertoire of vocabulary, • organises and structures his or her presentation using an effective range of strategies to engage the audience, • achieves the purpose of his or her presentation, and • listens to questions/feedback, responds perceptively and if appropriate elaborates with further ideas and information.

Year 9 and 10 Knowledge Goals: Spoken Language and Contentious Issues

Imagine you are going to appear on a talk radio debate programme to talk about a topic you feel strongly about. You will need to be able to present your topic clearly and put forward/argue your views on your issue for approximately FIVE minutes. You will also need to answer appropriate questions put to you by the presenter of the show, who will be played by a teacher.

Single sex v co-educational schools?	Euthanasia?	The monarchy – abolish or not?	Climate change?	Is war ever ethical?
Grammar schools and selective education?	Abortion?	Voting Reform – compulsory? Age reduction?	Electric vehicles?	What is art?
University tuition fees?	Organ donation?	Mandatory National Service?	Fracking?	Space exploration: a waste of time and money?
Private education –yes or no?	Cosmetic surgery?	Universal Basic Income?	Nuclear energy and Trident?	Zoos – yes or no?
Studying English and Maths until 18?	Cryogenics?	Capital punishment and the death penalty?	Wind farms and turbines?	Should books ever be banned?
Should contact sports be banned in schools?	Compulsory Vaccination?	Brexit and EU membership?	Vegetarianism/Veganism?	Should charity begin at home?
Free school meals for all?	Legalising/decriminalising drugs?	Four day working week ?	Badger culling – yes or no?	Prisons – more harm than good?
Children should not start school until they are seven.	Scientific testing on animals – yes or no?	Boxing should be banned.	Organic farming?	Artificial Intelligence – good or bad?
Homework – beneficial or not?	Junk food ban – yes or no?	Are footballers are paid too much money?	Fox hunting?	The internet – more harm than good?

Year 9 and 10 Knowledge Goals: Spoken Language and Contentious Issues

Research Websites:

See how people voted when asked about various issues.
https://uk.isidewith.com/polls

Watch talks about various issues.
http://www.ted.com/

Listen to moral debates on Radio 4 about various issues on Moral Maze.
http://www.bbc.co.uk/programmes/b006qk11/episodes/player

Other useful websites:

https://noisyclassroom.com/debate-topics/

https://idebate.net/resources/debatabase

Planning for your Spoken Language Presentation

Topic:

Introduction: what are you going to be talking about? (1 minute)

Brief history/overview of your topic: (1 minute)

First point/one side of the argument: (1 minute)

Second point/other side of the argument: (1 minute)

Third point/your opinion: (1 minute)

Conclusions: (1 minute)

Any questions?

Year 9 and 10 Knowledge Goals: Spoken Language and Contentious Issues

Tier 3 Vocabulary		
Key Word		**Definition**
1	Standard English	The formal and widely recognised version of English associated with education and clear communication.
2	audible	Heard or perceptible by the ear.
3	articulate	Having or showing the ability to speak fluently and coherently.
4	clarity	Being coherent and intelligible.
5	cohesion	Forming a united whole. Creating a presentation that works as a whole.
6	fluency	The ability to express oneself easily and articulately.
7	formal register	The register associated with academic writing and speaking. Adheres to grammatical rules.
8	rhetoric	The art of effective persuasion.
9	ethos	Being credible and trustworthy when speaking.
10	logos	Being logical when speaking.
11	pathos	Making emotional appeals when speaking.
12	body language	The conscious and unconscious movements which communicate attitudes and feelings.
13	prosody	The patterns of stress and intonation in language.
14	paralinguistics	The non-verbal elements of communication such as tone, pitch, volume and facial expression.

Year 9 and 10 Knowledge Goals: Spoken Language and Contentious Issues

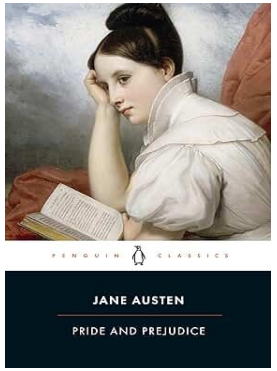
Tier 2 Vocabulary		
Key word		**Definition**
1	contentious	controversial
2	controversial	contentious
3	debate	A formal discussion where opposing arguments are put forward.
4	intolerance	An unwillingness to accept views, beliefs and behaviour that differ from one's own.
5	equality	The state of being equal especially in status, rights and opportunities.
6	equity	Fairness and impartiality
7	citizen	A legally recognised subject of a state or country.
8	reform	To make changes in order to improve it.
9	mandatory	Compulsory by law.
10	diversity	People from a range of different social/ethnic backgrounds and of different genders/sexual orientation.
11	ethical	Morally good or correct.
12	sustainable	Able to be maintained at a certain rate or level.
13	selective	Choosing things carefully and perhaps with discrimination.
14	compulsory	Required by law, obligatory, mandatory.

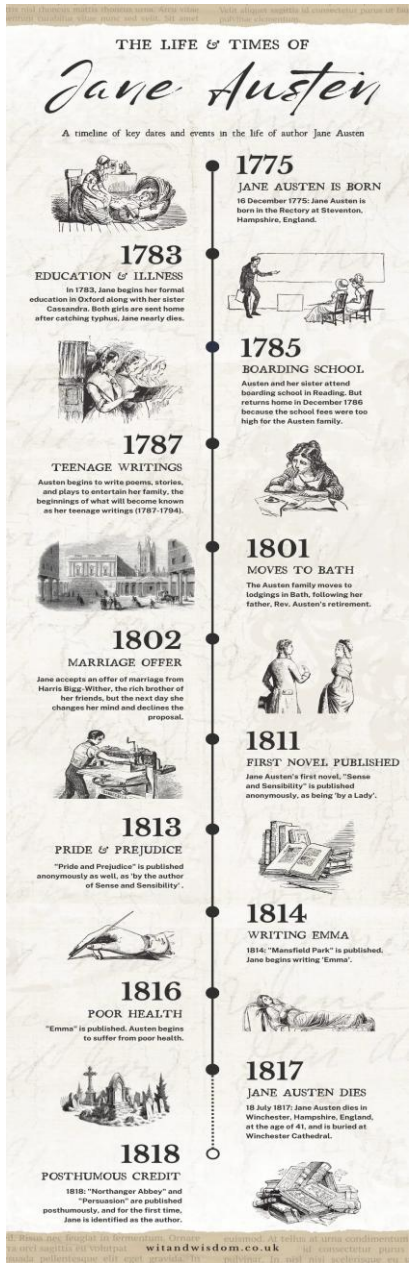
Year 9 and 10 Knowledge Goals:C19th Female Writers (Summer Term 2026)

‘Pride and Prejudice’ by Jane Austen

1813

***





PRIDE AND PREJUDICE

CHARACTER LIST

ELIZABETH BENNET
the intelligent protagonist

MR. DARCY
the proud gentleman

JANE BENNET
the eldest sister

MR. BINGLEY
the wealthy bachelor

LYDIA BENNET
the youngest sister

MRS. BENNET
the mother

MR. BENNET
the father

MR. COLLINS
the clergyman

Year 9 and 10 Knowledge Goals:C19th Female Writers (Summer Term 2026)

‘Jane Eyre’ by Charlotte Bronte 1847

Charlotte Brontë

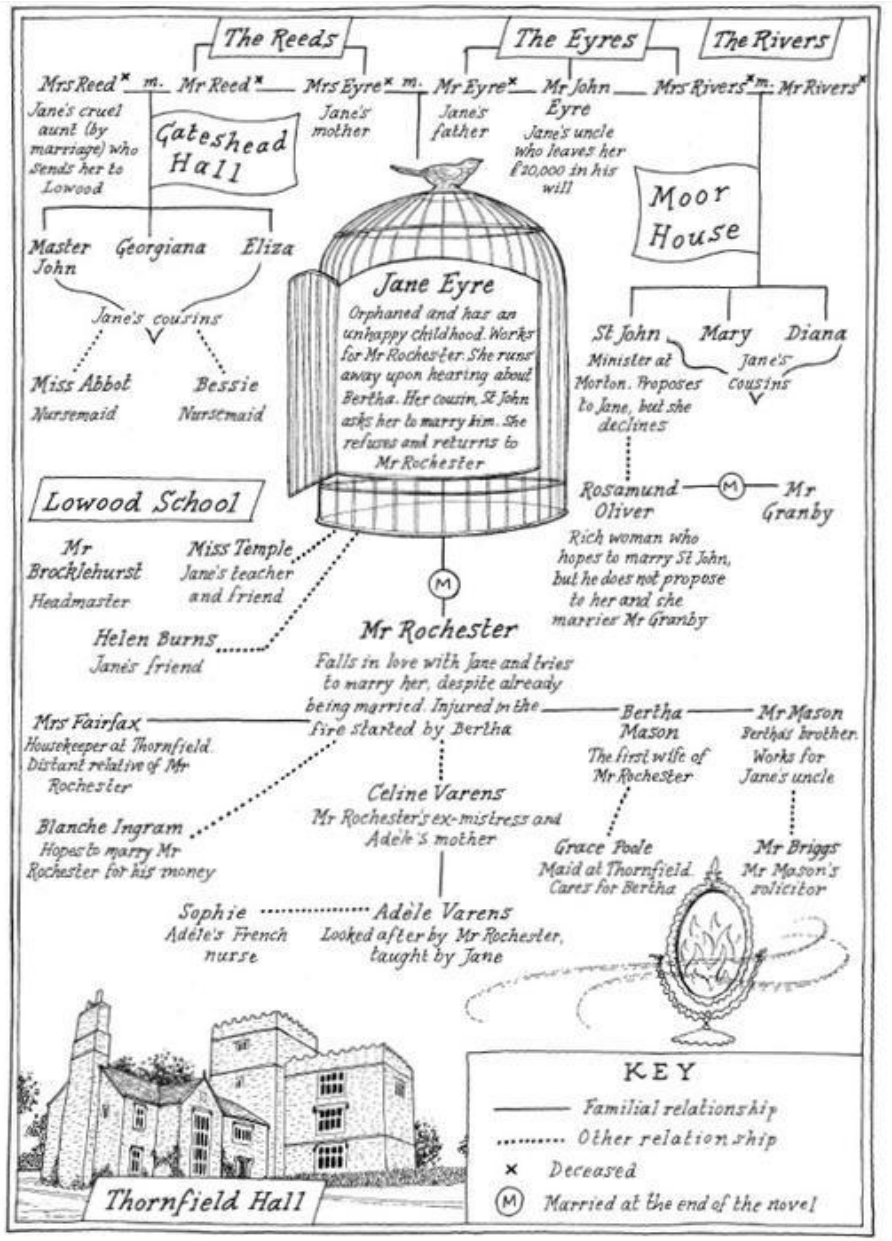
Charlotte Brontë used the pseudonym Currer Bell when she published *Jane Eyre*—her publishers didn't know Bell was actually a woman until 1848, a year after the book was published.

With the publication of *Jane Eyre*, Charlotte Brontë is considered to be the first author to write a novel from the perspective of a child.

The mansion in *Jane Eyre* was modelled after Norton Conyers, a real house in North Yorkshire, while its lunatic resident was inspired by a real “madwoman.”

Two years after her death in 1855, Charlotte's friend Elizabeth Gaskell published a biography called *Life Of Charlotte Brontë* which went on to become a bestseller.

curious THE READER



Year 9 and 10 Knowledge Goals:C19th Female Writers and Characters

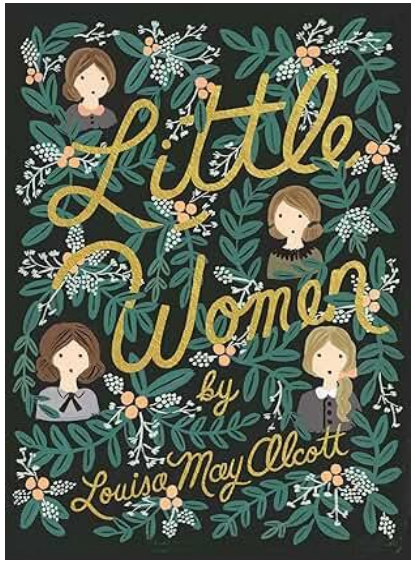
Tier 3 Vocabulary		
Key word		**Definition**
1	Regency Romance	Fiction written during the Regency era. The Regency is the period from 1811 to 1820 when George, Prince of Wales, governed the country as 'Regent' during the madness of his father George III.
2	satire	Writing or language that involves the use of humour and sarcasm to point out absurdities in humanity and society.
3	social commentary	In literature, a work of social commentary is one that critiques aspects of society in order to highlight their flaws and hopefully prevent them from continuing.
4	bildungsroman	A story which follows the main protagonist from youth into adulthood; a coming-of-age tale.
5	Gothic fiction	A genre popular in the C18th and C19th characterised by mystery and horror.
6	autobiographical novel	A novel which is based on the life of the author. It is not an autobiography but is inspired by the writer's experiences.
7	epistolary novel	A novel written in a series of letters and diary entries.
8	sensation novel	The Victorian sensation novel has been variously defined as a 'novel-with-a-secret'. It combines romance and realism.
9	omniscient narrator	An all-knowing or third person narrator.
10	free indirect speech	When a character's first person thoughts are in the voice of the third person narrator. The character and the narrator's voice are merged.
11	frame narrative	A story within a story. Adds realism and truth because there are two or more story tellers.
12	unreliable narrator	A narrator whose credibility is compromised. A unreliable narrator misleads readers or withholds information either deliberately or unwittingly.

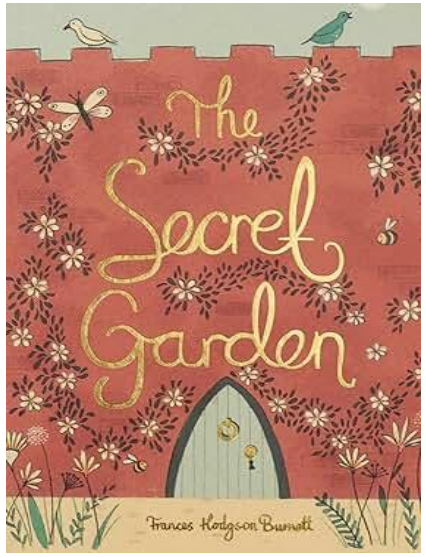
Year 9 and 10 Knowledge Goals:C19th Female Writers and Characters

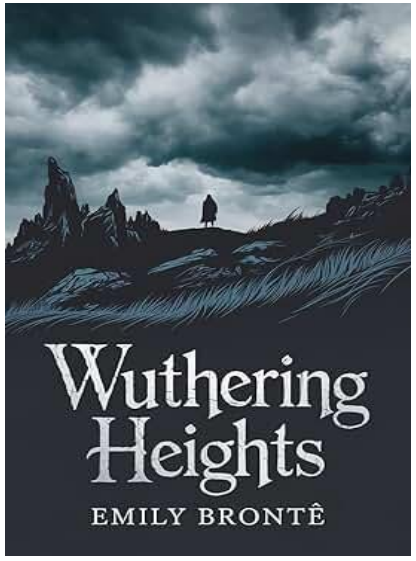
Tier 2 Vocabulary		
Key word		**Definition**
1	domesticity	Home or family life.
2	morality	The distinction between right and wrong or good and bad behaviour.
3	universal	Relating to or done by all people or things in the world or in a particular group; applicable to all cases.
4	civility	Formal politeness and courtesy in behaviour or speech.
5	countenance	A person's face of facial expression. Support or approval.
6	endeavour	A concerted effort to achieve a goal.
7	composure	Calmness or self-control.
8	obscure	Uncertain, vague, not easy to understand, dark or dim. To conceal or hide.
9	impotent	Powerless, helpless
10	incredulous	Disbelieving, unconvinced
11	obligation	A duty or commitment (usually legally or morally).
12	reproach	To express disapproval or disappointment in someone's behaviour.

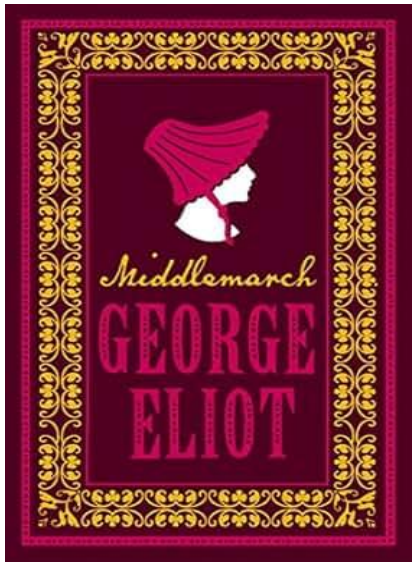
Year 9 and 10 Knowledge Goals:C19th Female Writers and Characters

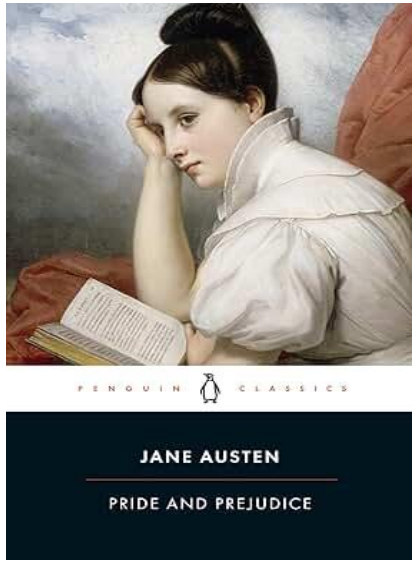
Some other C19th novelists and female characters for you to explore...

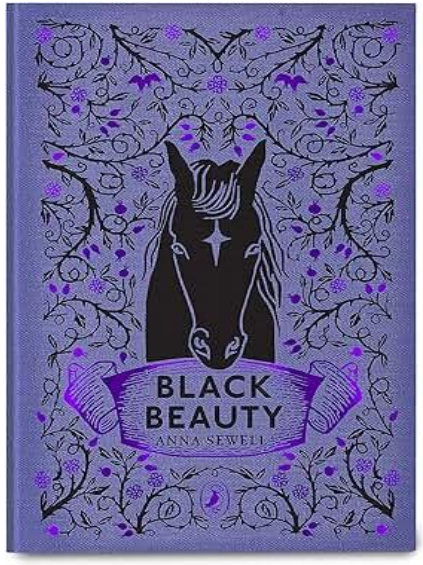


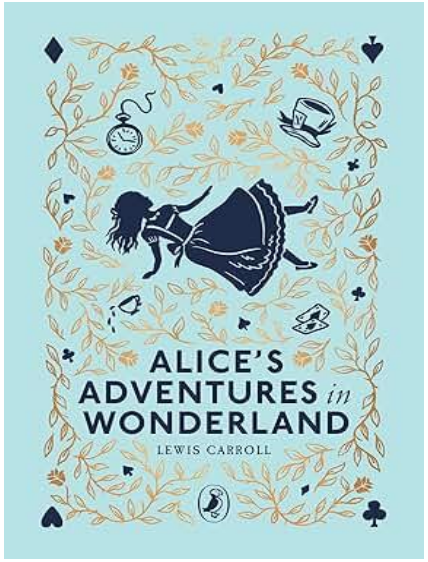


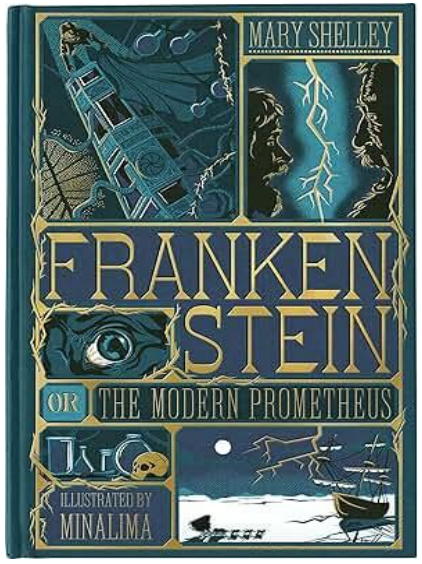


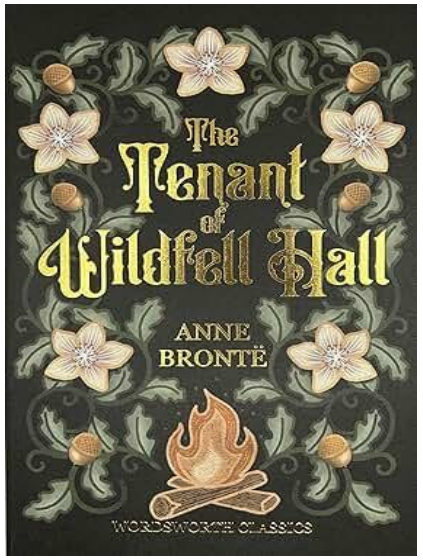


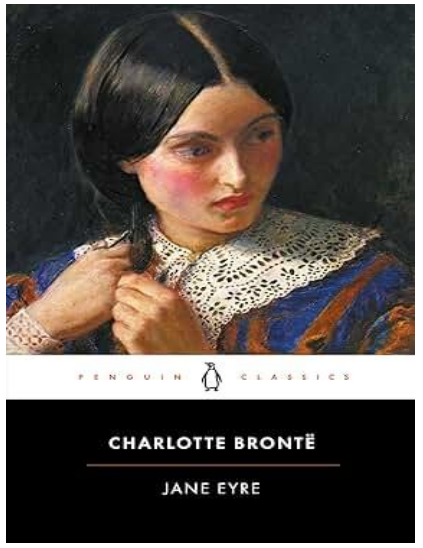












Year 9 and 10 Knowledge Goals: Food and Nutrition

When doing NEA2 you are to combine your high level skills with the exam board brief – this year increasing fibre content into the diet.

To get the best possible marks in NEA 2 you are to demonstrate your skills as a Chef. The following skills are classed as high level by the exam board.

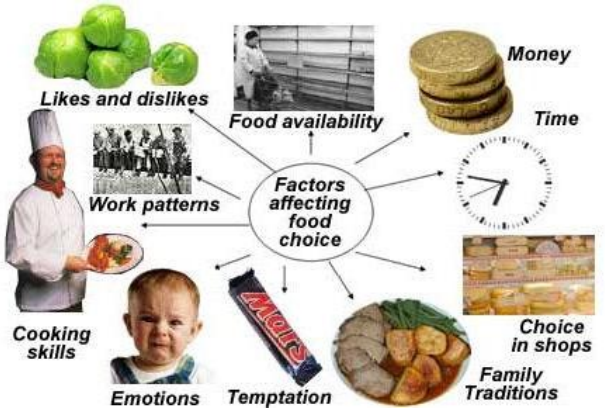
- Pastry making – shortcrust, puff, choux or hot water.
- Bread making – loaf, buns, garlic bread, focaccia
- Sauce making – roux and emulsion sauces
- Filleting Fish
- Making Pasta
- Aeration – meringues
- Decorated cakes
- Setting a mixture using gelatinization – cheesecake.
- Portioning up a Chicken.

To learn how to portion up a whole chicken watch the video below (filmed in lock down at my house)

Food seasonality

There is strong evidence that eating plenty of fibre (commonly referred to as roughage) is associated with a lower risk of heart disease, stroke, type 2 diabetes and bowel cancer. Choosing foods with fibre also makes us feel fuller, while a diet rich in fibre can help digestion and prevent constipation.

https://www.youtube.com/watch?v=IEQoD2p-OIY&pp=ygUgbXJzIHdhcmluZ3MgcG9ydGlvbmluZyBhIGNoaWNrZW4%3D



Year 9 and 10 Knowledge Goals: Food and Nutrition

Tier 3 Vocabulary		
Key word		Definition
1	NEA 2	Non examination assessment.
2	Primary research	Primary research involves gathering data that has not been collected before. Methods to collect it can include interviews, surveys, observations or any type of research that you go out and collect yourself.
3	Secondary research	A research method that uses data that was collected by someone else. In other words, whenever you conduct research using data that already exists, you are conducting secondary research.
4	Fibre	Is found in wholegrain cereals and fruit and vegetables. Fibre is made up of the indigestible parts or compounds of plants, which pass relatively unchanged through our stomach and intestines. Fibre is mainly a carbohydrate. The main role of fibre is to keep the digestive system healthy.
5	High skills	Pastry, bread, sauces, fillet fish, portioning a chicken, pasta, setting using gelatin, using aeration, decorated cakes.
6	Recipe trialing	**recipe** testing involves putting a **recipe** through rigorous **trials** and experiments to guarantee its feasibility, taste, and overall appeal
7	Nutritional analysis	Nutritional analysis is **the process of calculating the nutritional content of food**.
8	Plagiarism	Using someone else's work without giving them proper credit. In academic writing, plagiarising involves using words, ideas, or information from a source without citing it correctly.
9	seasonality	The times of the year when a given type of food is at its peak, either in terms of harvest or its flavour.
10	Economic factors	Economic factors are **any factors that have direct impacts on the economy and businesses.**
11	Food availability	The availability of sufficient quantities of food of appropriate quality, supplied through domestic production or imports (including food aid).
12	Food miles	Food miles is the distance food is transported from the time of its making until it reaches the consumer.

Notes:

Quiz QR Code	Quiz Link
	Link

My Personal World

Tu peux te présenter s'il vous plait ?

Décris ta famille ?

Tu t'entends bien avec ta famille ?

Que fais-tu avec ta famille ?

Qu'est-ce que tu as fait avec ta famille pour ton dernier anniversaire ?

Tu as un meilleure amis ?

Que fais tu avec tes amis le weekend normalement ?

As-tu des projets pour le week-end prochain avec tes amis ?

Comment est ta ville ?

Tu préfères habiter en ville ou à la campagne ?

Work out what these questions are and practice them for homework

Year 9 and 10 Knowledge Goals: French

Tier 3 Vocabulary		
	Key word	Definition
1	**Pronunciation**	The way in which a word is pronounced.
2	**Fluency**	The ability to speak or write a foreign language easily and accurately. Fluency is not speed.
3	**Phonics**	A method of teaching people to read by correlating sounds with symbols in an alphabetic writing system.
4	**Past Participle**	The form of a verb typically ending in **é/u/i**
5	**Stem**	The root or main part of a word, to which inflections or formative elements are added.
6	**Infinitive**	The basic form of a verb, without an inflection binding it to a particular subject or tense.
7	**Auxilary verbs**	Avoir and être used in the Past tense.

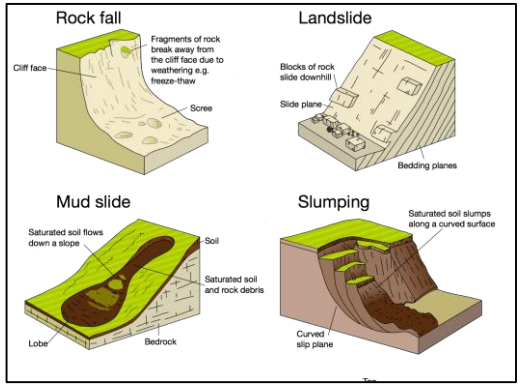
Notes

Languagenut
Exam skills
KS4

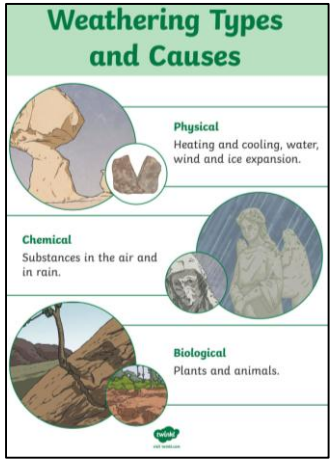
Link

Year 9 and 10 Knowledge Goals: Geography

Types of mass movement

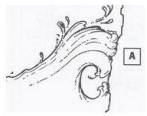


Weathering Types and Causes

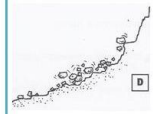


Types of Erosion

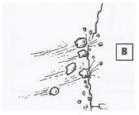
Hydraulic Action
The forces of the waves crashing into the cliff. The air in cracks in the cliff is compressed which breaks up the rock



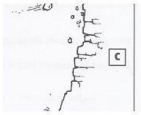
Attrition
rocks and pebbles collide with each other and roll around. They become smaller and more rounded



Abrasion
Waves carrying beach material e.g. sand and rocks are thrown against the cliff wearing it away



Corrosion (solution)
Is when the cliff dissolves by slightly acidic water.



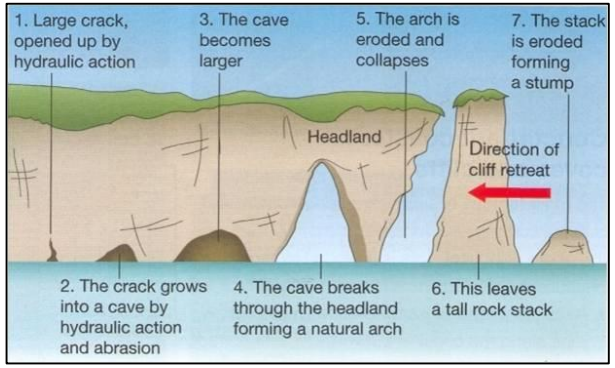
Hard engineering

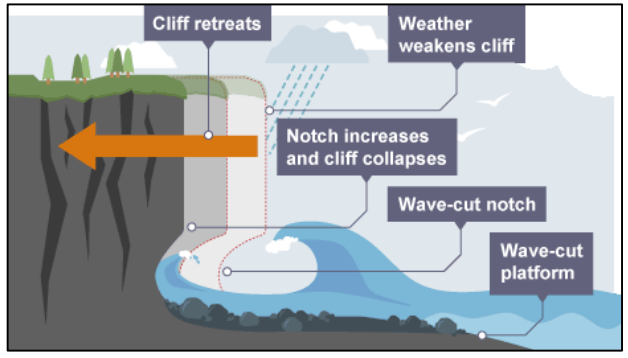
Type	Definition
Sea Wall	Large walls constructed from concrete, steel, or stone located along the shoreline of a beach
Groyne	Wooden fence-like barriers built at right angles at the beach
Gabion	Bundles or rocks in metal mesh located at cliff bases
Revetment	Slanted structures made from concrete, wood or rocks along a cliff
Coastal Barrage	Partly submerged dam-like structures that control tidal flow
Rock Armour (rip rap)	Large boulders or rocks piled up on a beach in front of a cliff or sea wall

Soft engineering

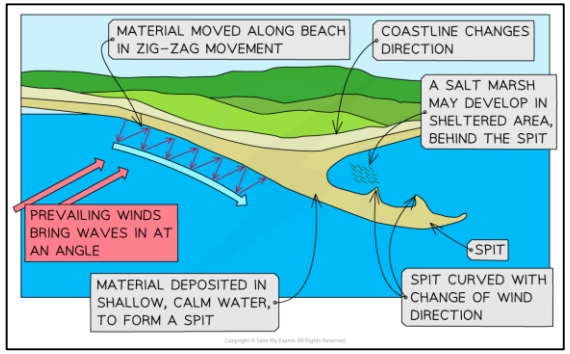
Type	Definition
Beach Nourishment	The beach is made wider by using sand and shingle.
Managed Retreat	Certain areas of the coast are allowed to erode and flood naturally due to their low value
Beach Stabilization	Planting dead trees in the sand to stabilize the beach
Dune Regeneration	Creating new sand dunes or restoring existing dunes
Afforestation of Coastal Dunes	A way to stabilize dunes by planting trees

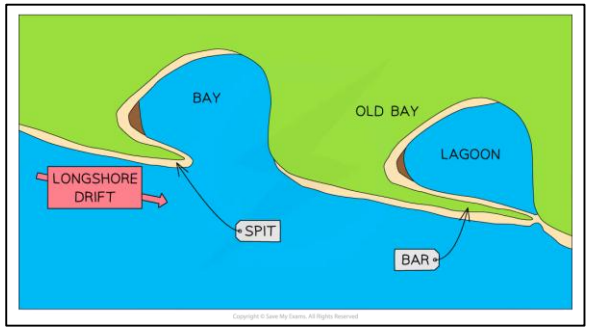
Erosional Landforms





Depositional landforms.





Phases of Coastal Management at Lyme Regis

Phase 1 Date: 1990's (completed 1995)
- New sea wall and promenade constructed to the east of the mouth of the River Lym
- In the winter of 2003-2004 a £1.4 million emergency project to stabilise the cliffs was completed. Hundreds of large nails were used to hold the rocks together as well as improving drainage and re-profiling the slope of the beach.

Phase 2 Date: 2005-2007

Extensive improvements made to the sea front costing £22 million. These included:
- Construction of new sea walls and promenades.
- Creation of a wide sand and shingle beach to absorb wave energy and increase use of the shore; shingle dredged from the English Channel and sand imported from France.
- Extension of rock armour at The Cobb and the eastern end of the sea front, to absorb wave energy and help retain the new beach.

Phase 3 Not undertaken
- The initial plan to help prevent landslips and coastal erosion to the west of The Cobb was shelved. It was decided to leave this stretch of coast alone as the costs outweighed the benefits.

Phase 4 Date: 2013 to 2014

The final phase focused on the coast to the east of the town. It cost £19.5 million and involved:
- Constructing a new 390m sea wall in front of the existing wall to provide additional protection.
- Extensive nailing, piling and drainage to provide cliff stabilisation to protect 480 homes.

Year 9 and 10 Knowledge Goals: Geography

Tier 3 Vocabulary		
Key word		Definition
1	hydraulic action	Erosion where water or air is force into cracks forcing them apart
2	abrasion	Where sediment scrapes away and erodes the surface.
3	corrosion	Chemicals in the sea water erode the surface
4	corrasion	Where sediment are projectiled against a cliff face by the waves energy eroding the surface.
5	weathering	The breaking down of the surface or rocks by chemical, mechanical or biological processes.
6	headland	Cliffs that stick out into the sea surrounded by water on three sides.
7	fetch	The distance travelled by the prevailing winds and wave energy across the sea.
8	groyne	Hard engineering, wooden or stone structures built at right angles to the beach to stop longshore drift.
9	sea wall	Hard engineering, solid structures built parallel to the sea, usually with a recurved face to deflect the waves energy back out to se.
10	rock armour	Hard engineering, rocks or concrete structures placed together to disperse the waves energy.
11	beach replenishment	Soft engineering, sediment is brought from elsewhere to increase the size of the beaches profile.
12	dune stabilisation	Soft engineering, stop or reducing dune erosion, usually by planting vegetation on dunes.
13	spit	A landform created by longshore drift where deposited sediment builds up land that juts out to sea.

Notes:

Quiz QR Code	Quiz Link
	Link

Year 9 and 10 Knowledge Goals: History

Nazi Germany was a totalitarian state, meaning all aspects of Germans' lives were controlled by the government. It was also one in which those deemed 'enemies of the state' were ruthlessly persecuted.

Summarise your learning	
Topic 1: Nazi policies towards women	Nazi policies towards women reflected Hitler's own personal views. He wanted to create a society where women had a precise and specific domestic role. Hitler saw their task as bearing and rearing children and educations should prepare women for their future role. Some women actively opposed the loss of their rights and were eventually sent to concentration camps.
Topic 2: Nazi policies towards the young	Hitler saw the young as the future of the Third Reich. Young people had to be converted to Nazi ideals such as obedience, following the Führer, placing the nation first, strengthening the racial purity of the nation and having large numbers of children. These aims were to be achieved through control of education and the Hitler Youth.
Topic 3: Employment and living standards	One of the main reasons for increased support for the Nazis was the high level of unemployment, which had reached six million by 1932. Hitler had promised that he would reduce and remove unemployment that had been caused by the Great Depression.
Topic 4: The persecution of the minorities	Hitler had used the Jews as scapegoats for many of Germany's problems. Nazi propaganda was used to turn Germans against the Jews and justify a policy of persecution. During the 1930s Gypsies, homosexual people and mentally and physically disable people were also targeted and persecuted.

Chronology: what happened on these dates?	
1933	Boycott of Jewish shops and businesses; Law for the Encouragement of Marriage passed; Sterilisation Law passed; First concentration camp for women opened at Moringen; First Napola schools set up.
1935	The Nuremberg Laws passed.
1936	Membership of the Hitler Youth made compulsory.
1938	Jewish children were not allowed to attend German schools; *Lebensborn* programme introduced; Kristallnacht.
1939	The euthanasia campaign began; Designated Jewish ghettos established.

Who or what were these people/events?	
Nazi Teachers' League	Organisation set up to control teachers and what they taught.
Reich Labour Service	A scheme to provide young men with manual labour jobs.
Strength through Joy (KdF)	Organisation to improve the leisure time of German workers by sponsoring a wide range of leisure and cultural trips.
Beauty of Labour	A department of the KdF that tried to improve working conditions. It organised the building of canteens, swimming pools and sports facilities. It also installed lighting in workplaces and improved noise levels.

Employment and living standards

Nazi policies reduced unemployment; however, there is debate about the standard of living during this period.

Nazi policies to reduce unemployment

Hitler was determined to reduce unemployment. This stood at 6 million in 1932 and had more or less been removed by 1938.

Job-creation schemes

In 1933, 18.4 billion ℛ.𝓜 (*Reichsmark*) were spent on job-creation schemes, rising to 37.1 billion by 1938. One scheme was a massive road-building programme to create autobahns. This improved the efficiency of German industry by allowing goods to cross the country more quickly and enabled the swift transportation of German troops.

The Reich Labour Service (RAD)

The Reich Labour Service provided young men with manual labour jobs. From 1935, it was compulsory for men aged 18-25 to serve six months. Workers lived in camps, wore uniforms, received very low pay and carried out military drill as well as work.

Invisible unemployment

Some unemployed people were 'invisible' and not counted in official unemployment figures:

- Jews dismissed from their jobs. From 1933, many Jews were forced out of their jobs, especially in professions such as lawyers and doctors.
- Women doctors, civil servants and teachers dismissed from their jobs.
- Women who had given up work to get married.
- Unmarried men under 25 who were pushed into RAD schemes.
- Opponents of the regime held in concentration camps.

Rearmament

Rearmament, especially after 1936, created more jobs:

- More money was spent on manufacturing weapons, and other heavy industry grew, such as the iron industry. By 1939, 26 billion ℛ.𝓜 were spent on rearmament.
- From 1935, all men aged 18-35 had to do two years' military service. The army expanded from 100,000 in 1933 to 1,400,000 in 1939.

The persecution of minorities

Hitler used the Jews as scapegoats for many of Germany's problems. The Nazis also persecuted Slavs (Eastern Europeans including Poles and Russians), Gypsies (a race of people who travel across the continent rather than living in one place), homosexuals and those with disabilities.

Nazi racial belief and policies

Central to the Nazis' policy was the aim to create a pure Aryan racial state They thought this could be achieved by selective breeding and destroying the Jews. Jews and Slavs were seen as inferior *Untermenschen* or subhumans.

The treatment of minorities

Germans with disabilities were seen as a 'burden on the community.' There were also socially undesirable groups such as homosexuals and gypsies.

- **People with disabilities.** The 1933 Sterilisation Law allowed the sterilisation of those suffering from physical deformity, mental illness, epilepsy, learning disabilities, blindness and deafness.
- **Homosexuals.** Homosexuality remained illegal. Nazi views about the importance of family life means that same-sex relationships could not be tolerated. Gay men were arrested and sent to concentration camps.
- **Gypsies.** The Nazis wanted to remove Germany's 30,000 Gypsies because they were non-Aryan and threatened racial purity. In 1935, the Nazis banned all marriages between Gypsies and Germans.

Changes in the standard of living

There is a debate about whether Germans were better or worse off during the period of 1933-1939.

Better off

- There was more or less full employment.
- The 'Strength Through Joy' (*KdF*) tried to improve the leisure time of German workers through leisure and cultural trips. These included concerts, theatre visits, sporting events, weekend trips, holidays and cruises.
- 'Beauty of Labour' tried to improve working conditions. It organised the building of canteens, swimming pools and sports facilities. It installed better workplace lighting and improved noise levels.

Worse off

- Lack of freedom. German workers lost their rights under the Nazis. In 1933, trade unions were banned (replaced by the Nazi-backed German Labour Front). The Labour Front did not permit workers to negotiate for better pay or reduced hours of work. Strikes were banned.
- Volkswagen swindle. The idea to encourage people to put aside money every week to buy a Volkswagen was a con trick. By 1939, not a single customer had taken delivery of a car. None of the money was refunded.
- Invisible unemployment.

Year 9 and 10 Knowledge Goals: History

Vocabulary: define these words.	
Conscription	Compulsory military service for a certain period of time
Autobahn	Motorway
Lebensborn	'Fount of life' – a programme whereby specially chosen unmarried women could 'donate a baby to the Führer', by becoming pregnant by 'racially pure' SS men
Aryan	Nazi term for a non-Jewish German, someone of supposedly 'pure' German stock
Anti-Semitism	Hatred and persecution of the Jews
Persecution	The act of harassing or oppressing a person or a group of people on the basis of race, religion, gender or sexual orientation
Volksgemeinschaft	The people's community. This was the Nazi idea of a community based upon the German race
Ghetto	A densely populated area of a city inhabited by a paricular ethnic group, such as Jews
Boycott	An organised refusal to have any dealings with a person, country, or business.
Euthanasia	Bringing death to relieve suffering. The Nazis interpreted this as killing anyone who was seen as substandard and of no further use to the state

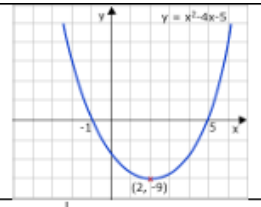
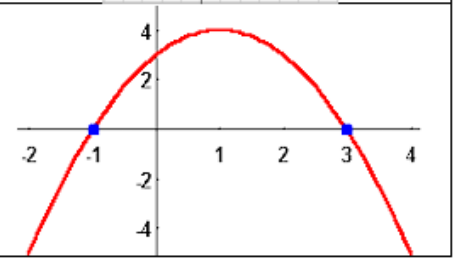
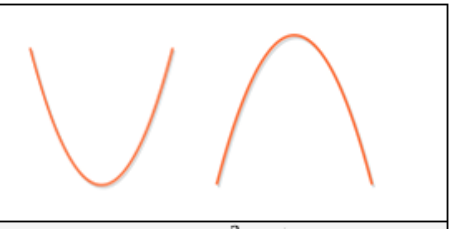
Notes:

Use the information on the other side of this sheet to focus your home learning. This is a guide to the unit that we are currently studying in school. If you miss any lessons, or feel that you didn't understand any of the topics on here, then you can see more for more guidance, or use this as a basis for more independent learning.

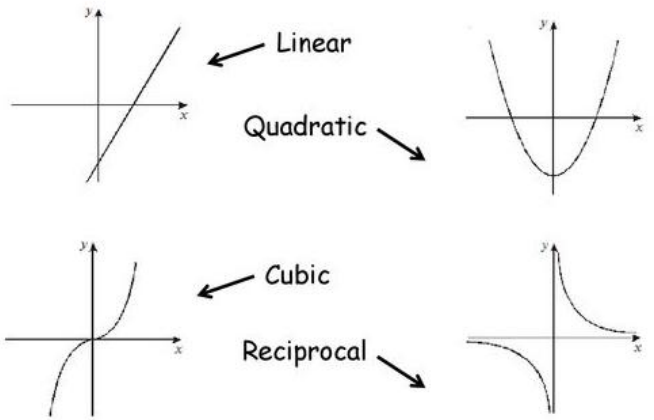
Quiz QR Code	Quiz Link
	Link

Year 9 and 10 Knowledge Goals: Maths - Quadratics (Foundation)

Topic/Skill	Definition/Tips	Example
1. Quadratic	A quadratic expression is of the form $ax^2 + bx + c$ where a, b and c are numbers, $a \neq 0$	Examples of quadratic expressions: x^2 $8x^2 - 3x + 7$ Examples of non-quadratic expressions: $2x^3 - 5x^2$ $9x - 1$
2. Factorising Quadratics	When a quadratic expression is in the form $x^2 + bx + c$ find the two numbers that **add to give b** and **multiply to give c**.	$x^2 + 7x + 10 = (x + 5)(x + 2)$ (because 5 and 2 add to give 7 and multiply to give 10) $x^2 + 2x - 8 = (x + 4)(x - 2)$ (because +4 and -2 add to give +2 and multiply to give -8)
3. Difference of Two Squares	An expression of the form $a^2 - b^2$ can be factorised to give $(a + b)(a - b)$	$x^2 - 25 = (x + 5)(x - 5)$ $16x^2 - 81 = (4x + 9)(4x - 9)$
4. Solving Quadratics ($ax^2 = b$)	Isolate the x^2 term and square root both sides. Remember there will be a **positive and a negative solution**.	$2x^2 = 98$ $x^2 = 49$ $x = \pm 7$
5. Solving Quadratics ($ax^2 + bx = 0$)	**Factorise** and then **solve = 0**.	$x^2 - 3x = 0$ $x(x - 3) = 0$ $x = 0$ *or* $x = 3$
6. Solving Quadratics by Factorising ($a = 1$)	**Factorise** the quadratic in the usual way. **Solve = 0** Make sure the equation = 0 before factorising.	Solve $x^2 + 3x - 10 = 0$ Factorise: $(x + 5)(x - 2) = 0$ $x = -5$ *or* $x = 2$

7. Quadratic Graph	A '**U-shaped**' curve called a **parabola**. The equation is of the form $y = ax^2 + bx + c$, where a, b and c are numbers, $a \neq 0$. If $a < 0$, the parabola is **upside down**.	
8. Roots of a Quadratic	A root is a **solution**. The roots of a quadratic are the ***x*-intercepts of the quadratic graph**.	
9. Turning Point of a Quadratic	A turning point is the **point where a quadratic turns**. On a **positive parabola**, the turning point is called a **minimum**. On a **negative parabola**, the turning point is called a **maximum**.	

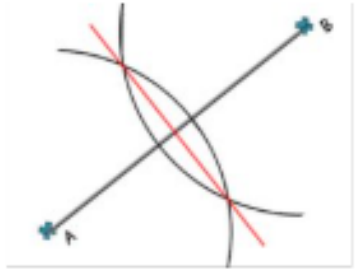
Types of Graphs



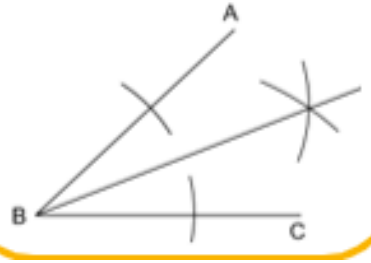
Year 9 and 10 Knowledge Goals: Maths - Constructions (Foundation)

Key Concept

Line Bisector



Angle Bisector



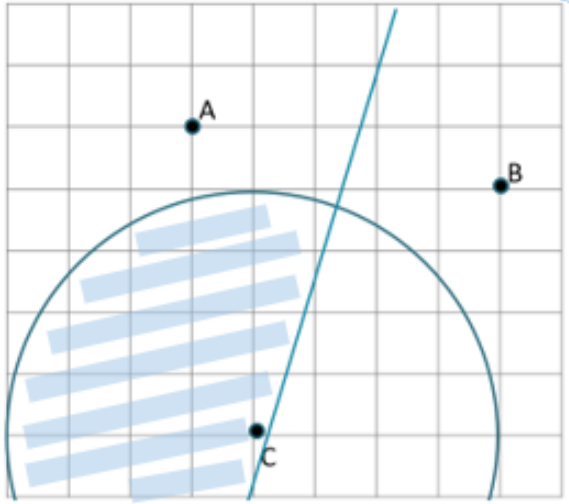
Examples

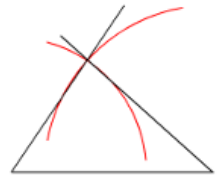
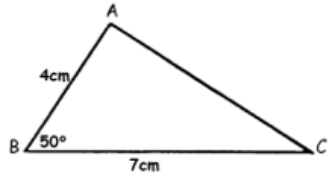
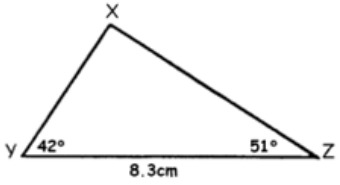
Shade the region that is:

- closer to A than B
- less than 4 cm from C

Line bisector of A and B

Circle with radius 4cm



8. Constructing Triangles (Side, Side, Side)	1. Draw the base of the triangle using a ruler. 2. Open a pair of compasses to the width of one side of the triangle. 3. Place the point on one end of the line and draw an arc. 4. Repeat for the other side of the triangle at the other end of the line. 5. Using a ruler, draw lines connecting the ends of the base of the triangle to the point where the arcs intersect.	
9. Constructing Triangles (Side, Angle, Side)	1. Draw the base of the triangle using a ruler. 2. Measure the angle required using a protractor and mark this angle. 3. Remove the protractor and draw a line of the exact length required in line with the angle mark drawn. 4. Connect the end of this line to the other end of the base of the triangle.	
10. Constructing Triangles (Angle, Side, Angle)	1. Draw the base of the triangle using a ruler. 2. Measure one of the angles required using a protractor and mark this angle. 3. Draw a straight line through this point from the same point on the base of the triangle. 4. Repeat this for the other angle on the other end of the base of the triangle.	

Tip

Watch for scales.

For a scale of:
1 cm = 4 km.

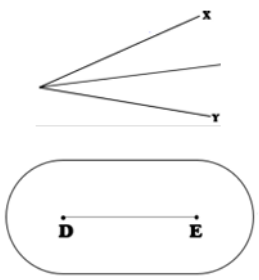
20 km = 5 cm
6 cm = 24 km

Key Words

Construction: To draw a shape, line or angle accurately using a compass and ruler.
Loci: Set of points with the same rule.
Parallel: Two lines which never intersect.
Perpendicular: Two lines that intersect at 90°.
Bisect: Divide into two parts.
Equidistant: Equal distance.

For the locus of points **equidistant to line X and line Y**, create an **angle bisector**.

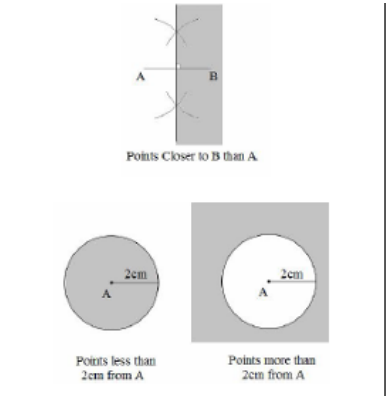
For the locus of points a set **distance from a line**, create **two semi-circles** at either end joined by **two parallel lines**.



A **locus** is a **path of points that follow a rule**.

For the locus of points **closer to B than A**, create a **perpendicular bisector** between A and B and shade the side closer to B.

For the locus of points **equidistant from A**, use a compass to draw a **circle**, centre A.

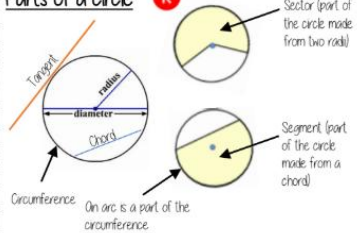


Year 9 and 10 Knowledge Goals: Maths - Circles (Foundation)

Keywords

Circumference: the length around the outside of the circle – the perimeter
Area: the size of the 2D surface
Diameter: the distance from one side of a circle to another through the centre
Radius: the distance from the centre to the circumference of the circle
Tangent: a straight line that touches the circumference of a circle
Chord: a line segment connecting two points on the curve
Frustrum: a pyramid or cone with the top cut off
Hemisphere: half a sphere
Surface area: the total area of the surface of a 3D shape

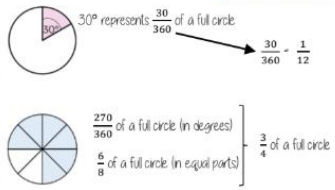
Parts of a circle



Fractional parts of a circle

A circle is made up of 360°

Formula to remember
Area of a circle = πr^2
Circumference of a circle = πd or $2\pi r$



30° represents $\frac{30}{360}$ of a full circle

$\frac{30}{360} = \frac{1}{12}$

$\frac{270}{360}$ of a full circle (in degrees)

$\frac{6}{8}$ of a full circle (in equal parts)

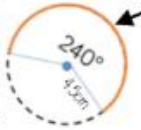
$\frac{3}{4}$ of a full circle

The fraction of the circle is as $\frac{\theta}{360}$

θ represents the degrees in the sector

Arc length

Remember an arc is part of the circumference
Circumference of the whole circle = $\pi d = \pi \times 9 = 9\pi$



Arc length = $\frac{\theta}{360} \times$ circumference

$= \frac{240}{360} \times 9\pi$

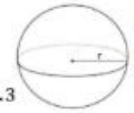
$= \frac{2}{3} \times 9\pi = 6\pi$

Perimeter

Perimeter is the length around the outside of the shape
This includes the arc length and the radii that encloses the shape

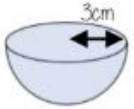
Perimeter = $\frac{\theta}{360} \times$ circumference $+ 2r$ $= 6\pi + 9$

Volume of a sphere



Volume Sphere = $\frac{4}{3}\pi r^3$

NOTE: This is now a **cubed** value



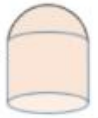
Volume Sphere = $\frac{4}{3}\pi r^3$

$= \frac{4}{3} \times \pi \times 3^3$

$= \frac{4}{3} \times \pi \times 27 = 36\pi$

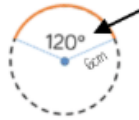
A hemisphere is half the volume of the overall sphere $= 36\pi \div 2 = 18\pi$

Look out for hemispheres being placed on other 3D shapes, e.g. cones and cylinders



Sector area

Remember a sector is part of a circle
Area of the whole circle = $\pi r^2 = \pi \times 6^2 = 36\pi$



Sector area = $\frac{\theta}{360} \times$ area of circle

$= \frac{120}{360} \times 36\pi$

$= \frac{1}{3} \times 36\pi = 12\pi$

Volume of a cone and a cylinder

Volume Cylinder = $\pi r^2 h$

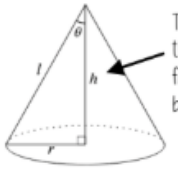
A cylinder is a prism – cross section is a circle

Volume Cone = $\frac{1}{3}\pi r^2 h$

A cone is a pyramid with a circular base

$V = \pi r^2 h$
$= \pi \times 4^2 \times 10$
$= \pi \times 160$
$= 160\pi$ cm^3

Give your answer in terms of π' means **NOT** in terms of pi $= 502.7$cm^3



The height of a cone is the perpendicular height from the vertex to the base

Look out for trigonometry or Pythagoras theorem – the radius forms the base of a right-angled triangle

Surface area of a sphere

Surface area = $4\pi r^2$

Radius = 5cm

Surface area = $4\pi r^2$

$= 4 \times \pi \times 5^2$

$= 4 \times \pi \times 25$

$= 100\pi$

The curved surface area of a sphere

A hemisphere has the curved surface AND a flat circular face

$= 100\pi \div 2 = 50\pi$

$= 50\pi + \pi \times 5^2$

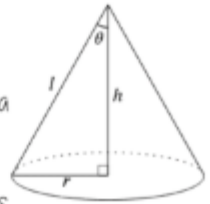
Hemisphere $= 75\pi$

Surface area of cones and cylinders

Surface area cylinder = $2\pi r^2 + \pi dh$

The area of two circles (top and bottom face) + the area of the curved face

The length of shape B is the circumference of the circles



Curved surface area Cone = πrl

Look out for the use of Pythagoras to calculate the length l

Total surface area = curved face + circle face (area of base)

Notes:

Year 9 and 10 Knowledge Goals: Maths (Foundation)

Tier 3 Vocabulary		
Key word		Definition
1	surface area	The sum of the areas of all the surfaces (faces) of a three-dimensional figure.
2	Volume	The amount of space that a three-dimensional figure contains. It is expressed in cubic units.
3	Area	The amount of flat space within the boundaries of the figures. It is expressed in square units.
4	Perimeter	The total length of the outside boundary of a plane figure. It is expressed in units of length.
5	Hypotenuse	The longest side of a right-angled triangle, opposite the right angle.
6	Pythagoras' theorem	a theorem attributed to Pythagoras that the square on the hypotenuse of a right-angled triangle is equal in area to the sum of the squares on the other two sides
7	Diameter	a straight line passing from side to side through the centre of a body or figure, especially a circle or sphere.
8	Circumference	the enclosing boundary of a curved geometric figure, especially a circle
9	Scale drawing	A scale drawing is an enlargement of an object.
10	Bisector	The line that divides something into two equal parts.
11	Perpendicular	at an angle of 90° to a given line, plane, or surface or to the ground
12	Loci	a curve or other figure formed by all the points satisfying a particular equation of the relation between coordinates, or by a point, line, or surface moving according to mathematically defined conditions.

Notes:

Quiz QR Code	Quiz Link
	Link

Year 9 and 10 Knowledge Goals: Maths - Similarity and Congruence (Higher)

What do I need to be able to do?

By the end of this unit you should be able to:

- Enlarge by a positive scale factor
- Enlarge by a fractional scale factor
- Identify similar shapes
- Work out missing sides and angles in similar shapes
- Use parallel lines to find missing angles
- Understand similarity and congruence

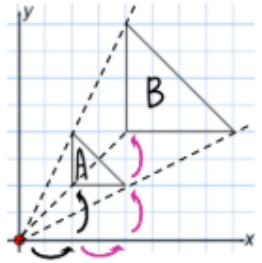
Keywords

Enlarge: to make a shape bigger (or smaller) by a given multiplier (scale factor)
Scale Factor: the multiplier of enlargement
Centre of enlargement: the point the shape is enlarged from
Similar: when one shape can become another with a reflection, rotation, enlargement or translation
Congruent: the same size and shape
Corresponding: items that appear in the same place in two similar situations
Parallel: straight lines that never meet (equal gradients)

Positive scale factors (R)

Enlargement from a point

Enlarge shape A by SF 2 from (0,0)



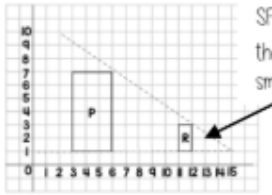
The shape is enlarged by 2

The distance from the point enlarges by 2

Fractional scale factors (R)

Fractions less than 1 make a shape SMALLER

R is an enlargement of P by a scale factor $\frac{1}{3}$ from centre of enlargement (15,1)



SF $\frac{1}{3}$ - R is three times smaller than P

Identify similar shapes

Angles in similar shapes do not change
e.g. if a triangle gets bigger the angles can not go above 180°

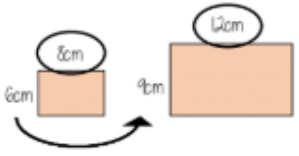
Similar shapes

Scale Factor
Both sides on the bigger shape are 1.5 times bigger

Compare sides: 6 : 9 = 2 : 3 ; 8 : 12 = 2 : 3

Both sets of sides are in the same ratio

Information in similar shapes



Compare the equivalent side on both shapes

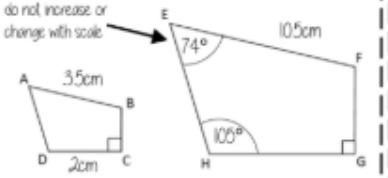
Scale Factor is the multiplicative relationship between the two lengths

Shape OBCD and EFGH are similar

Notation helps us find the corresponding sides

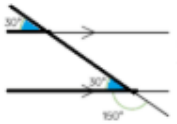
OB and EF are corresponding

Remember angles do not increase or change with scale



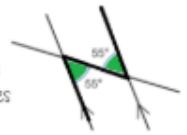
Angles in parallel lines (R)

Alternate angles



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

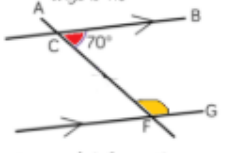
Corresponding angles



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°



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

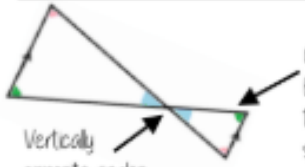
Similar triangles

Shares a vertex

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

Parallel lines – all angles will be the same in both triangle

Os all angles are the same this is similar – it only one pair of sides are needed to show equality

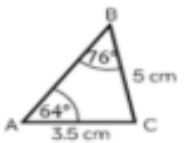


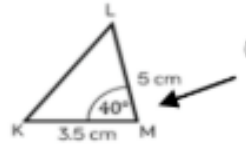
Vertically opposite angles

All the angles in both triangles are the same and so similar

Congruence and Similarity

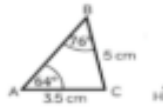
Congruent shapes are identical – all corresponding sides and angles are the same size





$\hat{OCB} = \hat{KML}$

Because all the angles are the same and OC=KM BC=LM triangles OBC and KLM are **congruent**



Because all angles are the same, but all sides are enlarged by 2 OBC and HIJ are **similar**

Conditions for congruent triangles

Triangles are congruent if they satisfy any of the following conditions

Side-side-side

All three sides on the triangle are the same size

Angle-side-angle

Two angles and the side connecting them are equal in two triangles

Side-angle-side

Two sides and the angle in-between them are equal in two triangles (it will also mean the third side is the same size on both shapes)

Right angle-hypotenuse-side

The triangles both have a right angle, the hypotenuse and one side are the same

Notes:

Year 9 and 10 Knowledge Goals: Maths (Higher)

Population and sampling

The **population** of a survey is everyone who can be questioned in relation to that survey. For example, if a shop wanted to know the opinion of a new marketing strategy, the population of the survey would be everyone who lives close enough to use the shop. A **sample** is a small selection of the population.

There are advantages and disadvantages to using entire populations and samples.

Population

Advantages

- All opinions are accounted for.
- Results are more reliable.

Disadvantages

- Takes a long time.
- Expensive.

Sample

Advantages

- Quick to conduct.
- Cost-effective.

Disadvantages

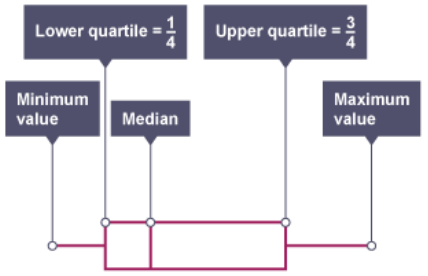
- Only a selection of opinions.
- Selection method could cause bias.

Box plots – Higher

A **box plot** shows a visual representation of the median and quartiles of a set of data.

To draw a box plot, the following information is needed:

- minimum value
- lower quartile
- median
- upper quartile
- maximum value

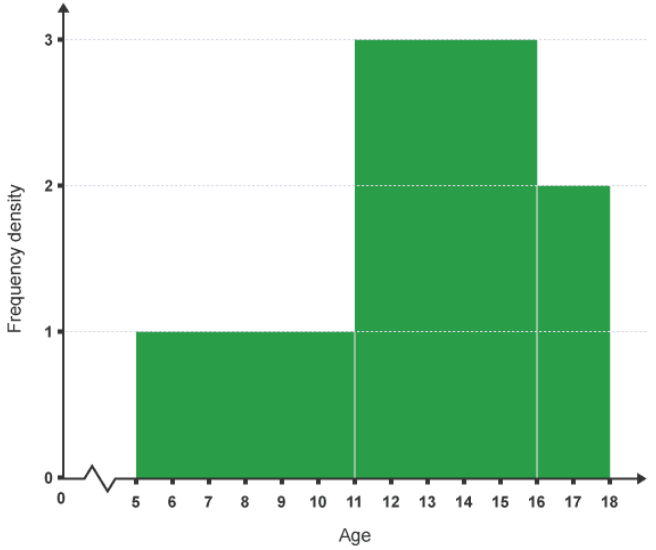


Histograms

A **histogram** looks like a bar chart, except **the area of the bar**, and not the height, shows the frequency of the data. Histograms are typically used when the data is in groups of unequal width.

Age	Frequency	Class width	Frequency density
5-10	6	6 (5, 6, 7, 8, 9 and 10 are in this category)	$6 \div 6 = 1$
11-15	15	5	$15 \div 5 = 3$
16-17	4	2	$4 \div 2 = 2$

Once the frequency densities of the numbers are known, the histogram can be drawn.



Cumulative frequency diagrams

A **cumulative frequency diagram** creates a running total of the amounts within a table.

Example

The table below shows the lengths of 40 babies at birth.

To calculate the cumulative frequencies, add the frequencies together.

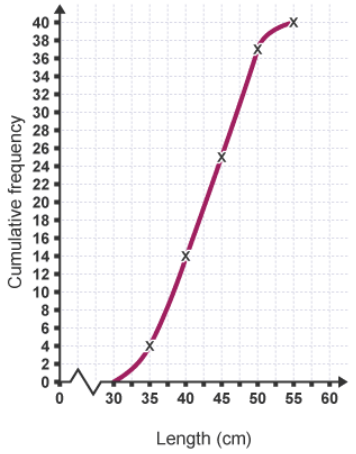
Length (cm)	Frequency	Cumulative frequency
$30 < l \leq 35$	4	4
$35 < l \leq 40$	10	14 $(4 + 10 = 14)$
$40 < l \leq 45$	11	25 $(14 + 11 = 25)$
$45 < l \leq 50$	12	37 $(25 + 12 = 37)$
$50 < l \leq 55$	3	40 $(37 + 3 = 40)$

A cumulative frequency diagram is drawn by plotting the **upper class boundary** with the cumulative frequency. The upper class boundaries for this table are 35, 40, 45, 50 and 55.

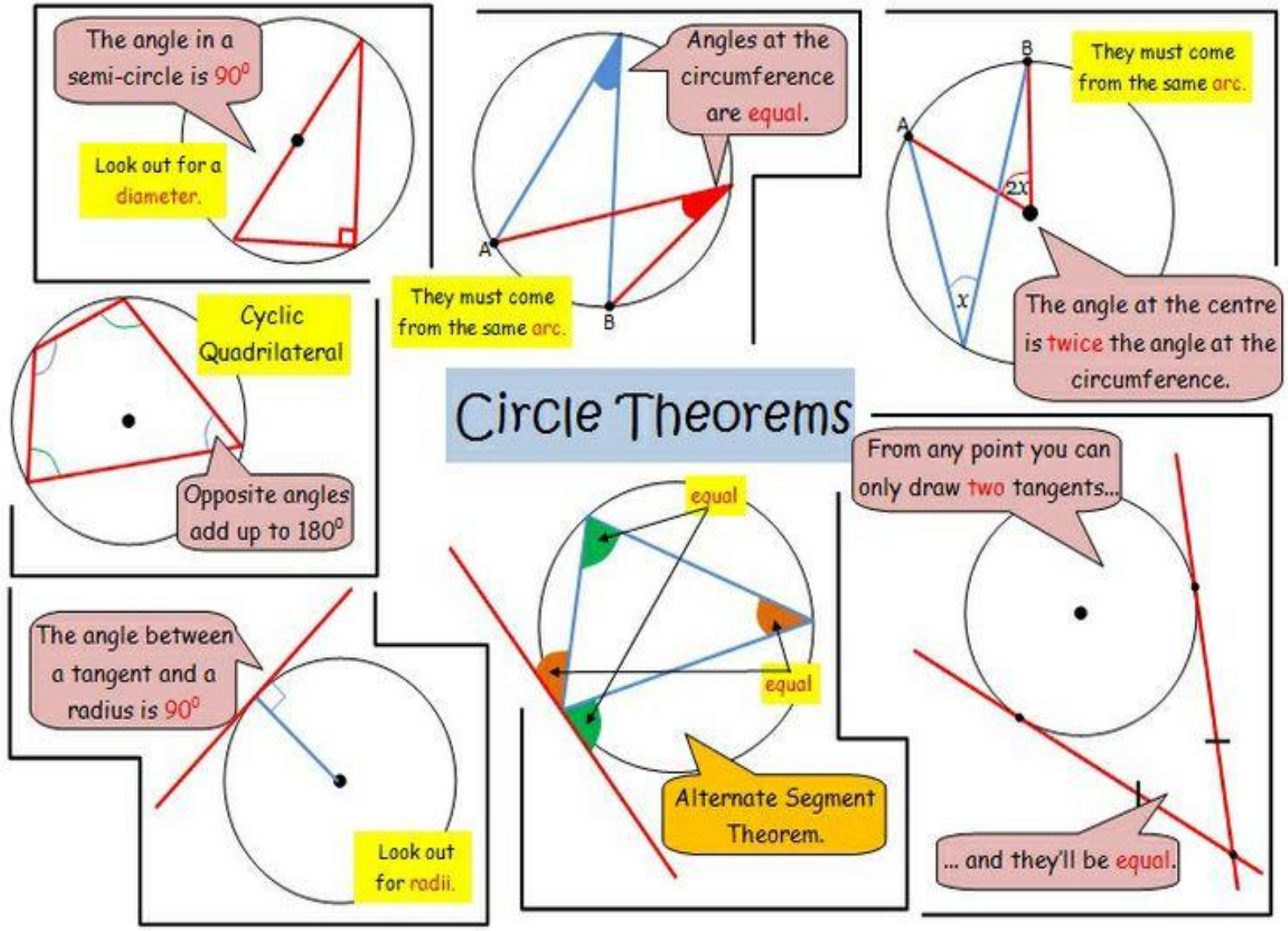
Cumulative frequency is plotted on the vertical axis and length is plotted on the horizontal axis.

A cumulative frequency diagram is drawn by plotting the **upper class boundary** with the cumulative frequency. The upper class boundaries for this table are 35, 40, 45, 50 and 55.

Cumulative frequency is plotted on the vertical axis and length is plotted on the horizontal axis.



Year 9 and 10 Knowledge Goals: Maths (Higher)



Tier 3 Vocabulary		
Key word		Definition
1	Primary Data	Data that has been collected from the original source.
2	Secondary Data	Data obtained from another source.
3	Population	The group of individuals from which the data has been obtained.
4	Sample	A selection of individuals taken from the population
5	Biased sample	A sample that doesn't represent the whole population.
6	Cumulative frequency	The sum of the frequency up to the upper-class boundary.
7	Upper quartile	The number that is the middle of the upper half of the data set, at 3/4 .
8	Lower quartile	The number that is the middle of the lower half of the data set, at 1/4 .
9	Histogram	A bar chart where the area (not the height) of the bar represents the frequency.

Year 9 and 10 Knowledge Goals: Media Studies (Luther)

Iconography - visual images and symbols.	**This could be: colours, costumes, facial expression, body language, props…**
Concept Music Video	Using abstract ideas and imagery instead of strictly shots of a band or artist.
Performance Music Video	A recording of the band as they perform the song. This could either be live or staged. Typical in Rock music.
Concept/Performance Hybrid Music Video	A mixture of concept and performance (Hybrid simply means mix of 2 things, like rom-com mixes romance and comedy).
Montage	**A collection of different images edited together, meaning will be created through the combination of these images.**

- **Narrative:** the construction of the story, sequence of events (linear, non-linear, flashback, flash forward…), characters, imagery, setting, tension…
- **Todorov's Narrative Theory suggests that stories contain five basic stages… Equilibrium, Disruption, Recognition, Resolution, New Equilibrium**
- **Non-Linear Narrative -** a story told out of order, maybe using flashbacks or flash forwards.
- **Linear Narrative -** a story told in order (Todorov) - starting at the beginning, going on through the middle, and ending at the end.

Some of the **typical codes and conventions** of the pop music and pop music videos are: songs about love
- romance and relationships
- the singer is featured in the video and star-persona is created
- choreographed dancing
- narrative and characters
- direct mode of address
- inclusion of a message or ideology

Star persona:
The image or ideology associated with a famous person or music artist. When a famous person's image is represented across a range of different media (music videos, social media, magazines) this creates an ideology about them i.e., Taylor Swift's star persona is that she is a talented, strong minded, young, conventionally attractive woman who is a skilled businesswoman and performer.

Propp's character theory, which characters fulfil each of the following roles in Bad Blood?

Hero

Villain

Princess

Donor

Helper

Dispatcher

False Hero

The **ideology** of a music video:
Freedom
Equality
Girl power
Male dominance
Wealth
Anarchy

The Plot for Bad Blood: Catastrophe (Taylor Swift) and a friend Arsyn fight off a gang of men in an office block. Arsyn betrays Catastrophe by blowing poison on her so they have 'bad blood'! C and A go into training and battle against each other with gangs of female friends!

Bad Blood makes **intertextual references** to popular celebrity culture by featuring well known female celebrities, the action movie genre by using the codes and conventions of this genre and TV shows such as Law and Order and Greys Anatomy.

Small, specialised audiences: producers can target a very specific group to try to guarantee an audience for the product e.g., heavy metal music.

Large, mass audiences: producers can reach more people, and possibly make more profit, by appealing to a mass audience. These products might include, for example, popular or 'universal' themes/ ideas, or include representations of different social groups.

Year 9 and 10 Knowledge Goals: Media Studies (Luther)

Tier 3 Vocabulary		
Key word		Definition
1	Linear narrative	A story told in order with a clear beginning, middle and end.
2	Non-linear narrative	A story not in order, maybe with flashbacks and flashforwards.
3	Montage	A collection of images put together to create a meaning.
4	Concept video	Using abstract ideas and images, not just of band/singer.
5	Performance video	A video based primarily around the bands/singer's performance.
6	Iconography	Visual images and symbols.
7	Propp's character theory	Character roles present in most story line.
8	Plot	The overall story line/narrative.
9	Star persona	The image or ideology of the person. Who they are, what they represent.
10	Intertextual	References to other know texts (art, music, films, books).
11	Ideology	A system of ideas and beliefs, especially one the forms the basis for how society should be.
12	Genre	A style or category of art, music or literature.

Notes:

Quiz QR Code	Quiz Link
	Link

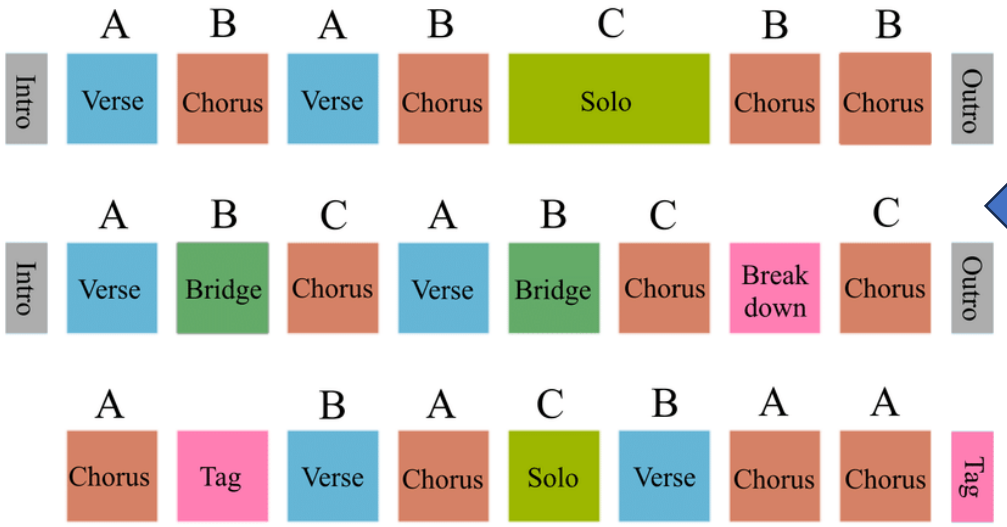
Year 9 and 10 Knowledge Goals: Music

Composition

Consider the following elements used in musical analysis and performance to help compose a piece of music.

1. The structure
2. The time signature
3. The key signature
4. The instrumentation
5. The tempo
6. The harmony of the music (the chords used)
7. The melody of the music (the tune)
8. The lyrical content and meaning (if any).
9. The style/genre
10. The social/political/cultural impact on the music.

Song Structure Examples



Examples of some common song structures in popular music.

Different Ways to Compose/Record

- Music notation software – e.g. Bandlab
- Pen and Paper
- Music technology software – e.g. Bandlab
- Compose in the style of…
- Manuscript paper
- Lyrics-melody-Harmony
- Video recording/Audio Recording
- Harmony – melody - lyrics

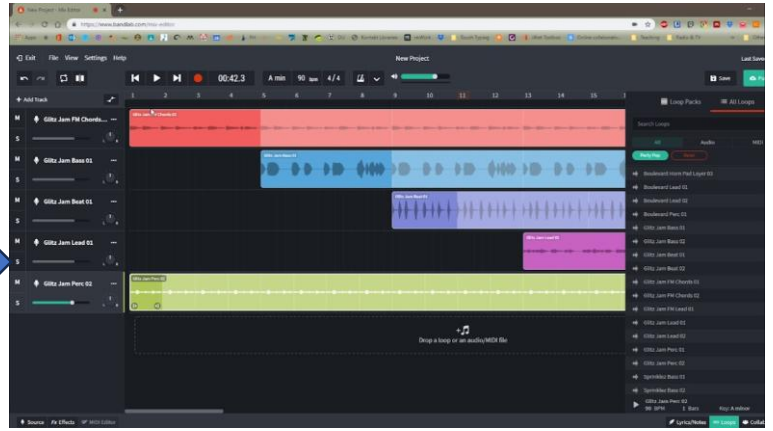
Year 9 and 10 Knowledge Goals: Music

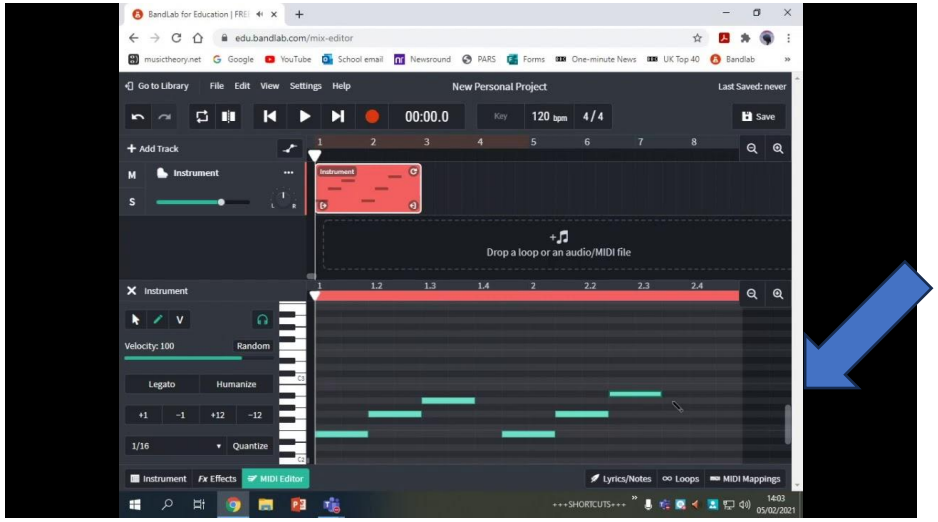
Music Technology

1. A DAW or Digital Audio Workstation is a piece of computer software used to create, compose and record music.
2. Loops are prerecorded short pieces of music that can be put together to create a larger piece of music.
3. You can create a rock song by doing the following:
4. Add loops together for 'rock band' instruments like electric guitar, bass guitar and drums.
5. Put these instruments together to create a 'verse' section for a song.
6. Repeat these steps with different loops to create a 'chorus' section for a song.

BandLab Overview

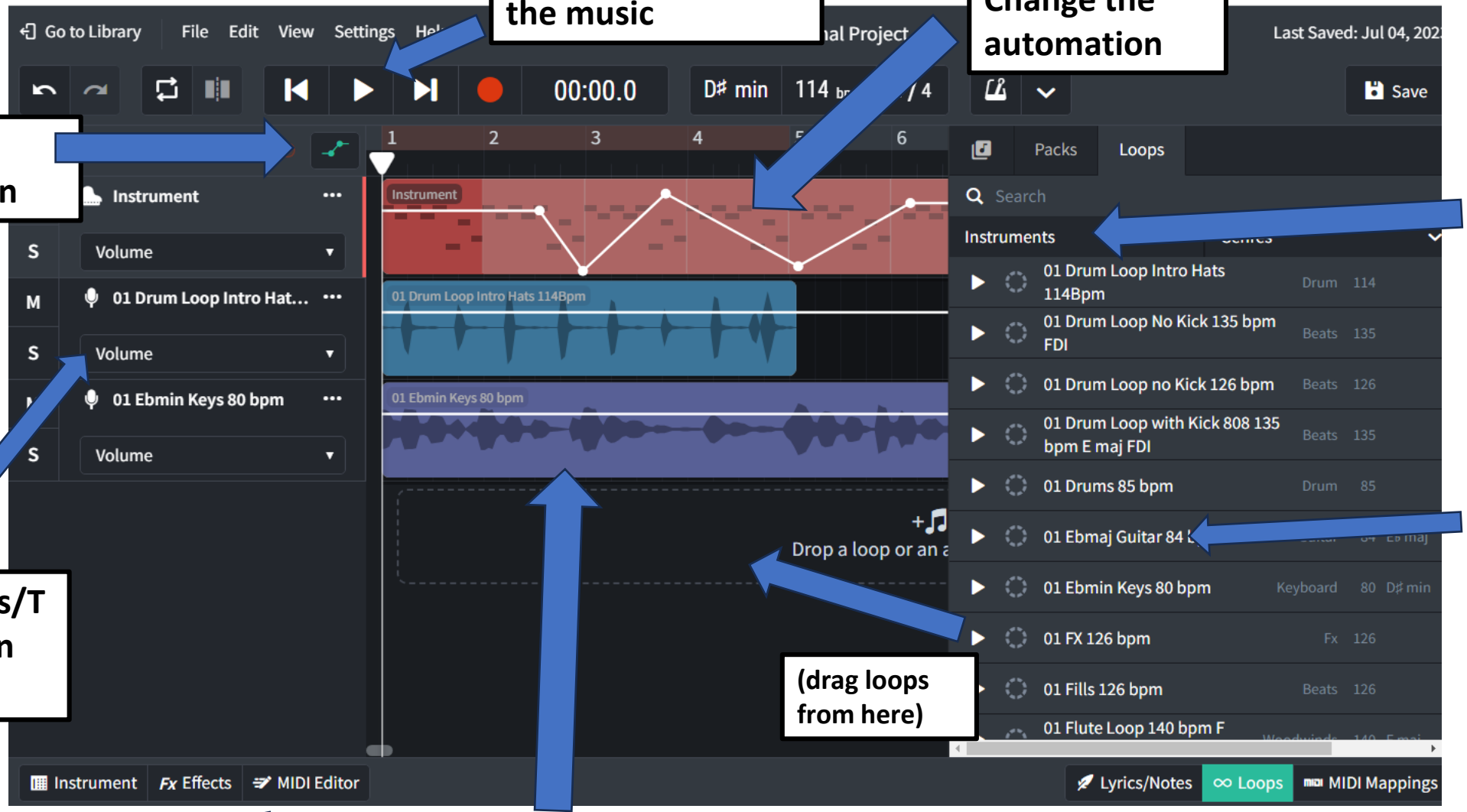
Using loops to create music.





Using sequencing to create music.

Year 9 and 10 Knowledge Goals: Music



Play/pause/stop the music

Change the automation

Access automation

Select different instruments/loops

Instruments/Tracks shown here

Click on different loops to hear them

(drag loops from here)

Change to MIDI editor for sequencing

DRAG LOOPS HERE TO HERE CREATE A SONG

Loop Library

Year 9 and 10 Knowledge Goals: Music

Tier 3 Vocabulary		
Key word		Definition
1	DAW	A 'Digital Audio Workstation', e.g. BandLab.
2	Loops	Short pieces of recorded music used together with others to create a song.
3	Composing	Creating music.
4	Bars	A short section of music, usually lasting 4 beats.
5	Beats	Beats go inside a bar of music, often 4 beats are counted together in one bar.
6	Automation	Automatically performing tasks, e.g. changing the volume or panning.
7	Volume	How loud or quiet the music is.
8	Panning	Changing the stereo spread of the music from left to right speaker.
9	Sequencing	A way to write/compose/program your own notes and rhythms instead of using prerecorded loops.
10	Verse	Typically a section of a song with repeated music but different lyrics.
11	Chorus	Typically a section of a song with repeated music and lyrics.

Notes:

Quiz QR Code	Quiz Link
	Link

Year 9 and 10 Knowledge Goals: PE (Rounders)

Positions in Rounders:

Bowler - must be good bowler so you don't give away free points for no balls. Backs up 3rd post to stump there if needed

Backstop - must be a good catcher and be able to throw the ball quickly to first post. If the ball is being thrown to 4th post, they should run and stand behind 4th post player as backup in case 4th post player misses the ball

1st post fielder - must be a good catcher to receive the ball from backstop if a player misses the ball

2nd post fielder - must be a good catcher to receive the ball from the backstop.

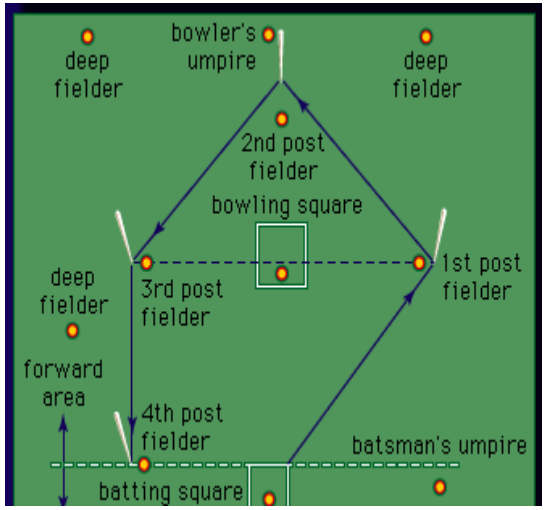
3rd post fielder - there is NO player at 3rd base

4th post fielder - should be a good catcher

Must be good at overarm throws and long barrier. Collects all balls hit between 1st and 2nd post

Deep fielder-Must be good at overarm throws and long barrier. Collects all balls hit behind the post fielders.

If the batter is left handed, fielders number 6-9 should rotate towards their left so 6&7 are between 1st and 2nd post, 8 is behind 2nd post and 9 is between 2nd and 3rd post.

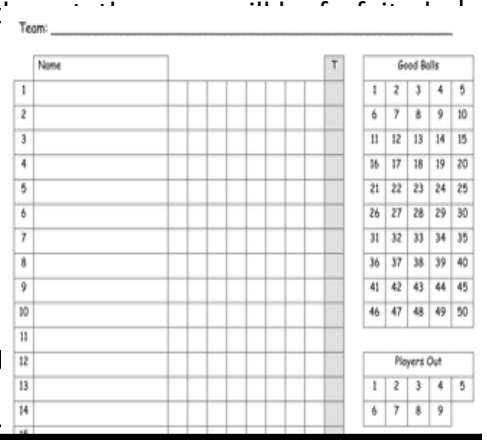


Further development:

Find a club near you:
https://www.roundersengland.co.uk/rounders-near-me/
Rules:
https://www.roundersengland.co.uk/rounders-near-me/play-the-game/

It is important you understand the scoring system as you will be starting to use it during lessons:

- If the batter hits the ball and reaches and touches 4th post before the next ball is bowled, the batting team scores 1 Rounder.
- If the batter hits a no ball and reaches and touches 4th post before the next ball is bowled, the batting team scores 1 Rounder (you cannot be caught out on a no ball).
- A ½ Rounder is scored if the batter reaches 4th post without hitting the ball.
- A ½ Rounder is scored if the batter hits the ball and 2nd or 3rd post is reached and touched before next ball is bowled. However, if you continue this run and are put out before reaching 4t
- A penalty ½ Rounder is scored for an obstruction by a fielder.
- A penalty ½ Rounder is scored for 2 consecutive no balls to the same batter.
- A penalty ½ Rounder is scored by the fielding team if waiting batters or batters out obstruct a fielder.
- A batter can score in the normal way on a backward hit but must remain at 1st post while the ball is in the backward area.



Batting tactics-

Directing your hit

Most fielders are positioned between 2nd/4th post so if you can hit the ball between 1st and 2nd post as a right handed batter, you are more likely to score at least ½ a rounder. Players will also not expect the ball to be hit here so you will get the 'element of surprise'

To direct your hit between 1st and 2nd post, you must:

Step back slightly with your back foot so your left shoulder is closer to 1st post

Hit the ball later - once it has passed your body

Bowling tactics-

Donkey drop technique

Technique is the same as a normal bowling technique except you release the ball later - when the ball is in line with toe middle of your chest (instead of when the ball passes your knee)

The ball should travel high (so they batter thinks it will be a no-ball) but then the ball drops down and it is a good ball - these are harder for the batter to hit the ball

Fast bowl

The technique for this bowl is the same as a normal bowling technique - however, you need to apply more speed to your arm swing so the ball travels flat and fast. This can also be achieved by adding in two steps before realising the ball. It is harder for a batter to hit a fast bowl.

Year 9 and 10 Knowledge Goals: PE (Rounders)

Tier 3 Vocabulary		
Key word		Definition
1	inning	A period of play in which each team has the chance to bat and field.
2	run out	When a fielder throws the ball to the post before the batter reaches it.
3	no ball	A delivery from the bowler that is not considered a legal ball due to being to high, low, wide or body ball.
4	body ball	A illegal delivery from the bowler where the ball hits the batter in the body.
5	deep fielder	This refers to a player who is positioned further away from the batter, typically in the outfield or at the back of the field.
6	long barrier	Is a fielding technique used by players to stop a hit ball from traveling further into the field or boundary
7	placement of hits	Batters can try to place the ball in areas where fielders are less likely to catch it. For example, hitting the ball to the opposite side of where the fielders are positioned can create gaps
8	base stealing	Runners can attempt to advance to the next base when the ball is in the field, especially when the fielders are distracted. Timing the runs carefully is key to avoid being caught out.
9	backing up	Fielders should keep an eye on the fielders on base and be ready to back up bases. This means preparing to back the base if the fielder makes a mistake or fails to catch the ball cleanly.
10	set plays	Teams might devise specific plays for situations such as a runner on first base with one out, where they plan to focus on throwing to the next base to get a double play.

Notes:

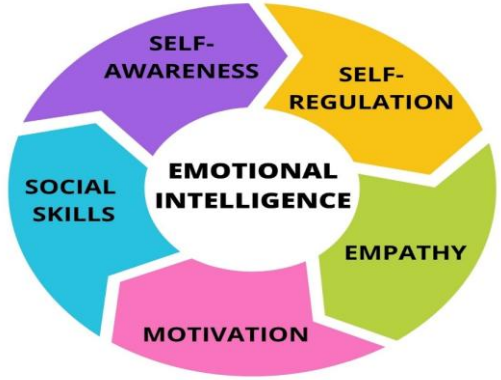
Year 9 and 10 Knowledge Goals: PSHE

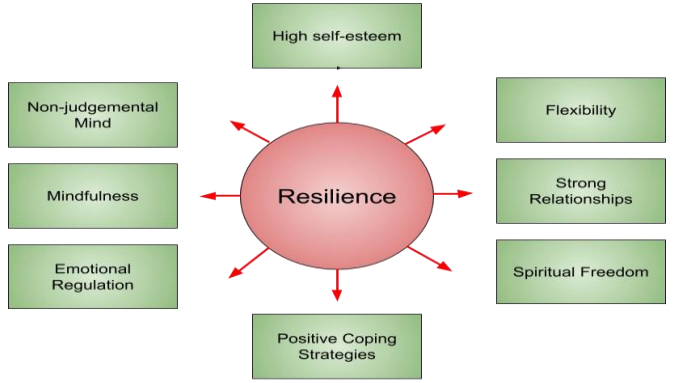
Nuclear Family

Blended family

Extended family

Same sex family





[The Wellbeing Hub - Schools - Teen Tips]

Year 9 and 10 Knowledge Goals: PSHE

Tier 3 Vocabulary		
Key word		Definition
1	Respectful relationships	Respectful relationships are based on trust, honesty, fairness, and equality.
2	Nuclear family	is a family group consisting of parents and their children (one or more), typically living in one home residence.
3	Reconstituted family	Family composed of an adult couple, married or unmarried, living with at least one child born from a previous union of one of the partners
4	Same sex family	Any family in which both parents identify as having the same sex – most commonly families with two lesbian female or two gay male parents.
5	Extended family	A family that extends beyond the nuclear family of parents and their children to include aunts, uncles, grandparents, cousins or other relatives, all living nearby or in the same household
6	Divorce	**An official or legal process to end a marriage**
7	Conflict resolution	The process that two or more parties use to find a cordial solution to a problem
8	Empathy	The ability to emotionally understand what other people feel, see things from their point of view, and imagine yourself in their place
9	Consent	Free, voluntary and informed agreement between people
10	Community responsibility	Social responsibility is an ethical framework in which **a person works and cooperates with other people and organizations for the benefit of the** community
11	Emotional intelligence	The ability to understand, use, and manage your own emotions in positive ways to relieve stress, communicate effectively, empathize with others, overcome challenges and defuse conflict
12	Emotional resilience	Emotional resilience is the ability to adapt to stressful situations, and cope with life's ups and downs

Notes:

Quiz QR Code	Quiz Link
	Link

Year 9 and 10 Knowledge Goals: Religion, Human Rights &Social Justice

Human Rights and Responsibilities

Human Rights were set up by the **United Nations** in 1948. Some examples to use are: right to vote, right to education, right to healthcare, right to have freedom of speech, right to practice your own religion.

Types of prejudice:
- Sexuality
- Racism
- Disability
- Gender

Positive discrimination is used to promote opportunities for minority groups in society so that those groups are better represented in public services. For example, the Police Service may advertise specifically for black, Asian and gay officers so that more people are represented from other communities.

The Law in the UK

The law is there to protect people from discrimination.
The following Acts have all been introduced:
- 1976 Race Relations Act
- The Commission for Racial Equality
- Equal Pay Act
- Sex Discrimination
- Disability Discrimination Act
- Equality Act 2010

Religious Freedom

In the **UK the right to religious freedom is protected**. Freedom of religious expression is the right of any person to follow the religion of their choice. **No religion teaches intolerance**. The freedom to believe and worship in public or private, to change religion or not or not follow any religion is a fundamental human right.

Wealth and Poverty

Poverty in the UK

Housing problems and homelessness is a real issue in the UK and more people are in need than ever before. Charities such as **Shelter and The Salvation Army** work all year round to:
- Rebuild lives – drug and alcohol rehabilitation
- Offering food parcels
- Youth clubs

Causes of poverty
- Natural disaster/climate
- War
- Corrupt governments
- Lack of education
- Debt
- Unfair trade/poor wages
- Lack of employment

Exploitation = poor people are often vulnerable to exploitation.
This means the **misuse of power** or money to get others to do things for little or unfair reward such as:
- Unfair pay/wages
- Excessive interest on loans
- People trafficking

Helping the Poor

In the UK **benefits** are paid by the government to help those in **financial difficulty**. This includes support for those who are sick, unemployed, homeless or disabled.
There are a number of religious charities such as **Christian Aid and Islamic Relief** that raise money and awareness for those living in poverty in the UK and around the world.

"Love your neighbour as yourself" (Mark 12:31)
The Good Samaritan & the Sheep and the Goats (Matthew 25:31-46)
"Faith without deeds is useless." (James 2:20)
"There is neither Jew nor Gentile, neither slave nor free, nor is there male or female for you are all one in Christ Jesus." (Galatians 3:28)
"For the love of money is the root of all kinds of evil." (Timothy 6:10)

Responsibilities of wealth in Christianity

Christians believe that there is **nothing wrong with wealth itself**. It is how we use it that matters. We can use it for good and bad. Christians believe they should not become greedy or selfish so that they forget God or forget to **love their neighbour**. Christians believe that by sharing they are **following the teachings of the bible and Jesus**.

Year 9 and 10 Knowledge Goals: Religion, Human Rights & Social Justice

Tier 3 Vocabulary		
Key word		**Definition**
1	Social Justice	Ensuring that society treats people fairly whether they are poor or wealthy and protects peoples human rights
2	Human Rights	The basic rights & freedom to which all humans are entitled
3	Equality	The state of being equal, in rights, status and opportunities
4	Prejudice	Unfairly judging someone before you know them (biased)
5	Discrimination	Treating someone unfairly based on prejudiced thoughts
6	Freedom of religion	The right to believe or practice whatever religion one wants
7	Freedom of religious expression	The right to worship and practices one's faith
8	Disability	A physical or mental impairment that adversely impacts
9	Positive discrimination	Treating people more favourably because they have been discriminated against in the past
10	Poverty	Being without money, food or basic needs for life exist
11	Exploitation	Misuse of power or money to get others to do things for little of unfair reward
12	Human trafficking	The illegal moment of people, typically for the purpose of forced labour or commercial sexual exploitation.

Notes:

Quiz QR Code	Quiz Link
	Link

Year 9 and 10 Knowledge Goals: Science (Inheritance and Evolution)

Keywords

allele – An alternative form of a gene.

asexual reproduction – The production of offspring from a single parent by mitosis. The offspring are clones of the parent.

chromosome – Structures that contain the DNA of an organism and are found in the nucleus.

cystic fibrosis – A disorder of cell membranes caused by a recessive allele.

DNA - A polymer that is made up of two strands that form a double helix.

dominant – An allele that is always expressed, even if only one copy is present.

fertilisation – The fusion of male and female gametes.

gamete – Sperm cell and egg cell in animals; pollen and egg cell in plants.

gene – A small section of DNA that codes for a specific protein.

genome – The entire genetic material of an organism.

genotype – The combination of alleles.

heterozygous – A genotype that has two different alleles – one dominant and one recessive.

homozygous – A genotype that has two of the same alleles. Either two dominant alleles or two recessive alleles.

meiosis – The two-stage process of cell division that reduces the chromosome number of the daughter cells. It makes gametes for sexual reproduction.

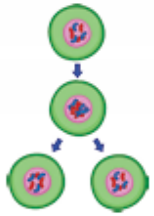
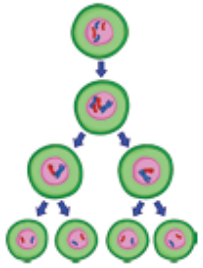
mutation – A change in DNA.

phenotype – The characteristic expressed because of the combination of alleles.

polydactyly – Having extra fingers or toes. Is caused by a dominant allele.

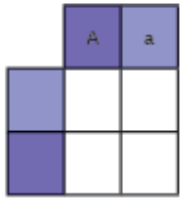
recessive – An allele that is only expressed if two copies of it are present.

sexual reproduction – The production of offspring by combining genetic information from the gametes of two parents. Leads to variation in the offspring.

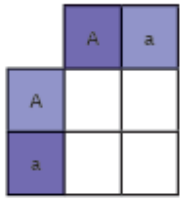
Mitosis	Meiosis
Produces two daughter cells.	Produces four daughter cells.
Daughter cells are genetically identical.	Daughter cells are not genetically identical.
The cell divides once.	The cell divides twice.
The chromosome number of the daughter cells is the same as the parent cells. In humans, this is 46 chromosomes.	The chromosome number is reduced by half. In humans, this is 23 chromosomes.
Used for growth and repair, and asexual reproduction.	Produces gametes for sexual reproduction.
	

How to Complete a Punnet Square

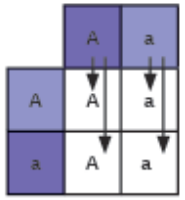
Step 1: Put the two alleles from one parent into the boxes at the top. This parent is a heterozygote. This means they have one dominant and one recessive allele.



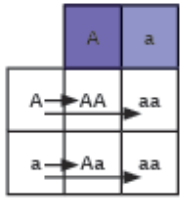
Step 2: Put the two alleles from the second parent into the boxes on the left. This parent is also a heterozygote.

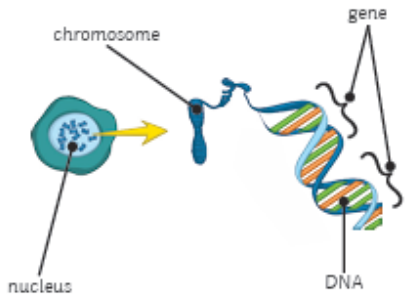


Step 3: Put the alleles from the first parent into the two boxes beneath them.



Step 4: Put the alleles from the second parent into the two boxes to the right of them.

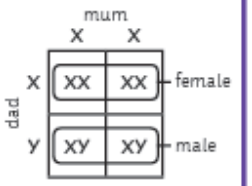




Sex Determination

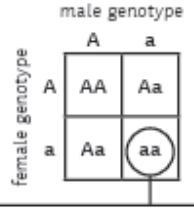
Females carry two X chromosomes.

Males carry one X and one Y chromosome.



Probability

There are four possible combinations of gametes that offspring can inherit.



One of these four has the genotype aa, that's $\frac{1}{4}$, 25% or 0.25.

The recessive phenotype has a ratio of 1:3 because only one combination will show the phenotype, while the other three will not.

Year 9 and 10 Knowledge Goals: Science (Inheritance and Evolution)

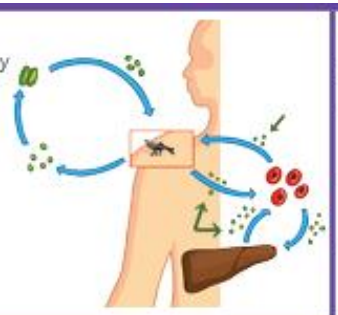
Advantages of sexual reproduction:

- Produces variation in the offspring;
- If the environment changes, variation gives a survival advantage via natural selection;
- Natural selection can be increased by humans in selective breeding to increase food production.

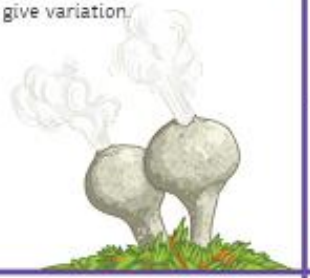
Advantages of asexual reproduction:

- Only one parent needed;
- More time and energy efficient as they do not need to find a mate;
- Faster than sexual reproduction;
- Many identical offspring can be produced when conditions are favourable.

Malarial parasites reproduce asexually in the human host but sexually in the mosquito.



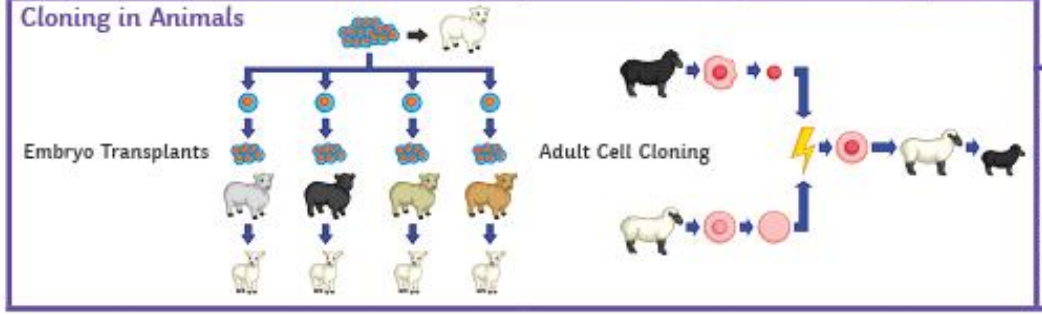
Many fungi reproduce asexually by spores, but also reproduce sexually to give variation.



Cloning in Plants

Many plants produce seeds sexually, but also reproduce asexually by runners such as strawberry plants, or bulb division such as daffodils.

Cloning in Animals

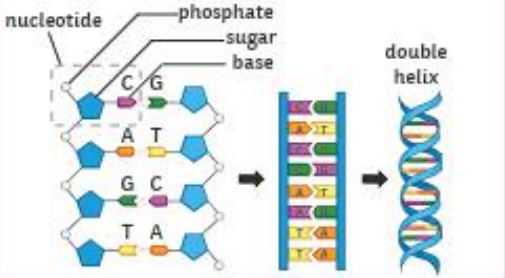


Evolution by Natural Selection

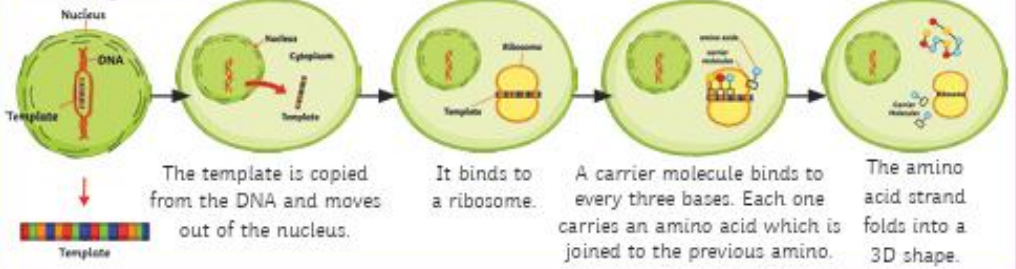
Darwin's theory was only gradually accepted because...

- the theory challenged the idea that God made all the animals and plants that live on earth.
- there was insufficient evidence at the time the theory was published to convince many scientists.
- the mechanism of inheritance and variation was not known until 50 years after the theory was published.

DNA Structure



Protein Synthesis



The template is copied from the DNA and moves out of the nucleus.

It binds to a ribosome.

A carrier molecule binds to every three bases. Each one carries an amino acid which is joined to the previous amino.

The amino acid strand folds into a 3D shape.

The Understanding of Genetics

1866 Mendel published his results, identifying units of inheritance. His work goes largely unnoticed by other scientists.

1884 Mendel dies.

1900 Roveri provides the first evidence that chromosomes are passed on between generations.

1953 The structure of the double helix is discovered by James Watson and Francis Crick, using data from Rosalind Franklin.

1856 Mendel begins his research.

1882 The 'chromosome dance' of mitosis was observed by Walther Flemming.

1902 Chromosomes are observed separating into gametes in meiosis by Walter Sutton. The connection between chromosomes and Mendel's units is made.

Speciation

isolation – Parts of a population become geographically or environmentally isolated from each other.

conditions – If the conditions in each environment are different, then different characteristics will be advantageous.

natural selection – Organisms with this characteristic are more likely to survive and pass on the allele for it to their offspring.

speciation – Eventually, the two populations are so different they can no longer interbreed to produce fertile offspring.

Year 9 and 10 Knowledge Goals: Science (Inheritance and Evolution)

Keywords

embryo screening – Genetic tests carried out on an embryo to see whether it carries a faulty allele.

evolution – A change in the inherited characteristics of a population, over time, through a process of natural selection.

evolutionary tree – A method used to show how scientists believe organisms are related.

extinction – The permanent loss of all members of a species.

fossils – The remains of organisms from millions of years ago which are found in rocks.

genetic engineering – The process by which scientists manipulate and change the genotype of an organism.

natural selection – The process by which organisms that are better suited to an environment are more likely to survive and reproduce.

selective breeding – Humans selecting animals or plants, that have a required characteristic, for breeding.

speciation – The process by which two species evolve from a single original species by natural selection. The two populations have become so different that they can no longer interbreed to produce fertile offspring.

variation - Differences in characteristics of individuals in a population.

Variation

Variation maybe be due to differences in:

- the genes that have been inherited (genetic causes);
- the conditions in which they have developed (environmental causes);
- a combination of genes and the environment.

Evolution

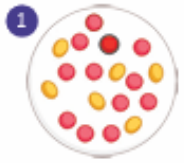
All species of living things have evolved from simple life forms by natural selection.

- If a variant/characteristic is advantageous in an environment then the individual will be better able to compete.
- This means they are more likely to survive and reproduce.
- Their offspring will inherit the advantageous allele.

Resistant Bacteria

To reduce the rate at which antibiotic resistant strains appear:

- Antibiotics should only be used when they are really needed, not for treating non-serious or viral infections.
- Patients should complete their courses of antibiotics, even if they start to feel better.
- The agricultural use of antibiotics should be restricted.



1. There is variation in the bacterial population. One bacterium develops a mutation by chance that means it is resistant to an antibiotic.
2. The antibiotic kills some of the bacteria, the resistant bacterium survives and reproduces.
3. The antibiotic kills the rest of the non-resistant bacteria so the person may start to feel a little better. The resistant bacterium has survived the antibiotic and continues to multiply.

Fossils

Fossils could be:

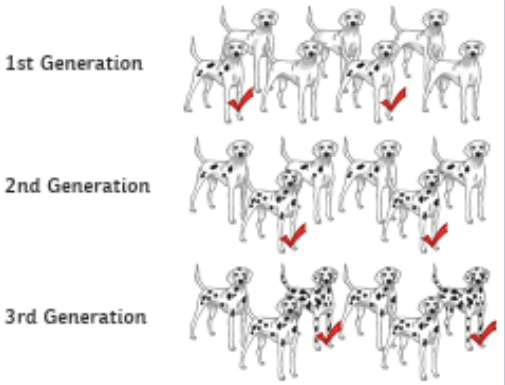
- the actual remains of an organism that has not decayed;
- mineralised forms of the harder parts of an organism, such as bones;
- traces of organisms such as footprints or burrows.

Many early life forms were soft-bodied so have left few traces behind.

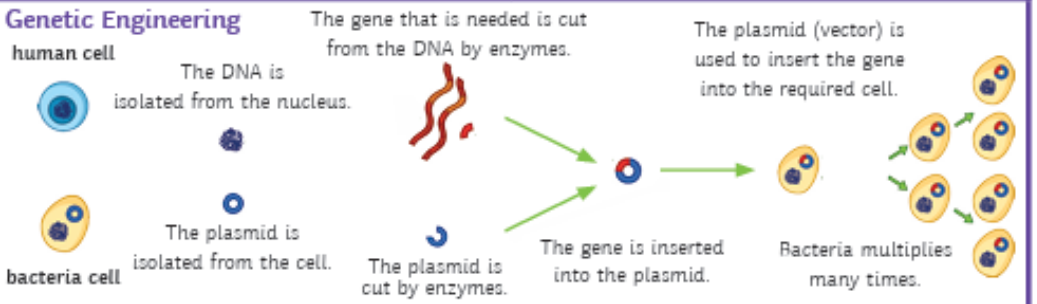
Fossils help us understand how much or how little organisms have changed as life developed on earth.

Selective Breeding

- Choose parents who have the desired characteristic.
- Select the best offspring and breed these to make the next generation.
- These offspring are then bred again and again, over many generations, until a desired result is achieved.



Genetic Engineering



Classification

Linnaeus classified living things into kingdom, phylum, class, order, family, genus and species.

Organisms are named by the binomial system of genus and species.

Due to evidence from chemical analysis, there is now a 'three-domain system' developed by Carl Woese.

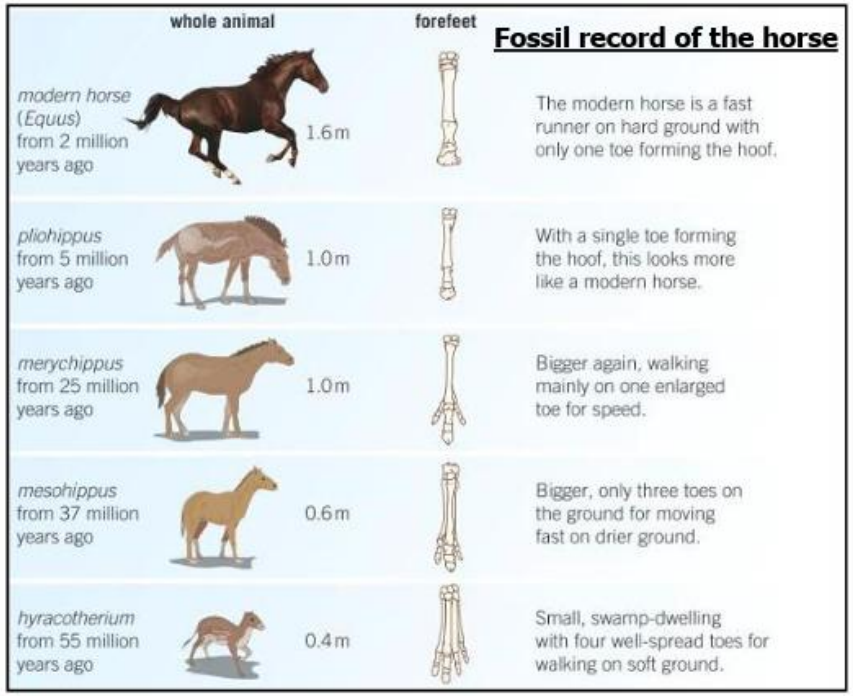
Domain	bacteria	archaea	eukaryota			
Kingdom	eubacteria	archaebacteria	protista	fungi	plantae	animilia

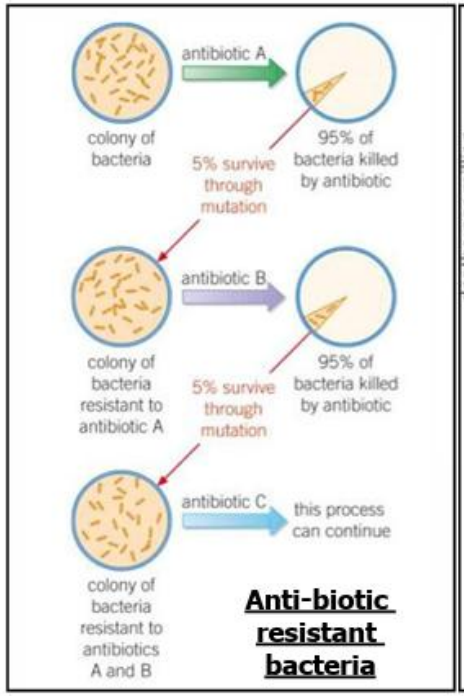
Year 9 and 10 Knowledge Goals: Science (Inheritance and Evolution)

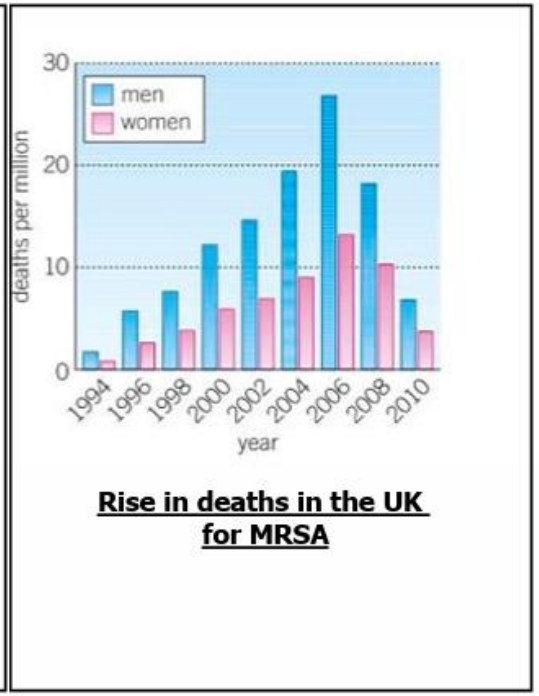
Section 1: Evidence for evolution	
Fossil	The preserved remains of an organism from many thousands of years ago. Formed by either gradual replacement by minerals, casts/impressions or preservation in places where there is no decay like amber
Resistance bacteria	Bacteria can evolve and become antibiotic resistant. Bacteria sometimes develop random mutations, allowing them to survive an antibiotic, they reproduce increasing the population size of antibiotic resistant bacteria

Section 2: Extinction	
Reasons	Rapid environmental changes, new predators, new diseases, better competitor, catastrophic event e.g. volcanic eruption

Section 3: Classification and evolutionary trees	
Classification	Organising living organisms into groups
Carl Linnaeus system	Kingdom → Phylum → Class → Order → Family → Genus → Species
Carl Woese 3 domain system	Archaea, Bacteria, Eukartota are the main large groups which are then divided into smaller groups using the keyterms above (kingdom etc...)
Binomial system	Give a 2 part name in Latin to every organism e.g. *Homo sapiens*
Evolutionary trees	Show common ancestors and relationships between species





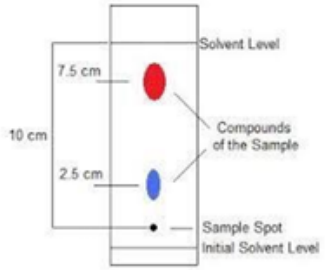


Year 9 and 10 Knowledge Goals: Science (Chemical Analysis)

Chemistry Knowledge Organiser
C12 - Chemical Analysis

Chromatography and Rf values

- When carrying out chromatography we can calculate an Rf (retention factor) value/
- The retention factor is a ratio between the distance travelled by the solvent and the distance travelled by a compound.
- Chromatography has two phases- a stationary phase where particles can't move (the filter paper in most cases), a mobile phase where particles can move (a solvent for example water).
- Different compounds will have different Rf values in different solvents, this allow us to see whether a substance is pure or impure.
- To calculate Rf value you need to divide the distance moved by the solvent by the distance moved by the spot.
- For example to work out the Rf for the spot further up the paper:
- $Rf = \frac{B}{A}$ $Rf = \frac{7.5}{10} = 0.75$
- There are no units as the answer is a ratio
- The higher the Rf the further the spot has moved up the paper, compared to the solvent.



Transition Metals

- The central block (between group 2 and 3) of the Periodic Table is known as the transition metals.
- Compared to group 1 elements, transition metals have different physical properties. For example transition metals have a higher melting point and are more dense.
- The exception is mercury which is a liquid at room temperature.
- Transition metals also have different physical properties to group 1. They are much less reactive and do not react vigorously with oxygen or water.

Key Terms	Definitions
Retention Factor	The ratio between the distance travelled by the substance and the distance travelled by the solvent.

Equation	Meanings of terms in equation and units
$Rf = \frac{B}{A}$	*Rf = Retention Factor (no units)* *B = Distance travelled by substance (cm)* *A= Distance travelled by solvent (cm)*

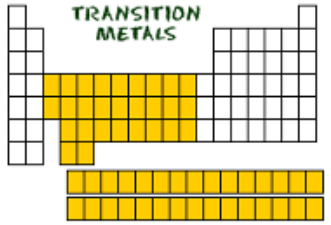
Melting Point and Boiling point

- A chemically pure substance will melt or boil at a very specific temperature.
- If a substance is chemically impure it will melt or boil at a lower temperature and across a broader range.
- The closer the substance is to the melting point the purer the substance.

Formulations

- Formulations are mixtures made using a precise amount of each substance, so they can serve a particular purpose.
- For example in paints or in pills.

Transition Metals



Combined Science

Separate Science

Year 9 and 10 Knowledge Goals: Science (Chemical Analysis)

Chemistry Knowledge Organiser
C12 - Chemical analysis – triple students only

Testing for positive ions

Positive ions (metal ions) can be identified by flame tests:

Metal and ion	Colour of flame test
Sodium Na^+	Yellow
Lithium Li^+	Crimson
Potassium K^+	Purple
Copper Cu^{2+}	Green
Calcium Ca^{2+}	Red/Orange

To carry out a flame test you need to do the following:

1. Dip metal loop in dilute HCl, hold in Bunsen burner flame (blue flame), until no colour is seen.
2. Dip the loop into the sample you are testing
3. Place this into the flame and observe the colour

Testing for negative ions

Ion	Test	Equation
Carbonate (CO_3^{2-})	Add metal carbonate to dilute acid in a boiling tube. Connect the boiling tube to a test tube containing limewater. If the limewater turns cloudy then a carbonate ion is present	$K_2CO_3+2HCl \rightarrow 2KCl+CO_2+H_2O$
Sulphate (SO_4^{2-})	Add 5 drops of dilute HCl, followed by 5 drops of barium chloride. If sulphate ions are present then a white precipitate will be formed.	$Ba^{2+}+ SO_4^{2-} \rightarrow BaSO_4$ This is the ionic equation for the reaction.
Halides (Cl^{-1}, Br^{-1}, I^{-1})	Add 5 drops of dilute nitric acid and 5 drops of silver nitrate, the colour of the silver halide precipitate formed will vary depend on the halogen Cl^{-1} – White Br^{-1}- Cream I^{-1}-Yellow	$Ag^+ + Cl^- \rightarrow AgCl$ This is the ionic equation for the reaction.

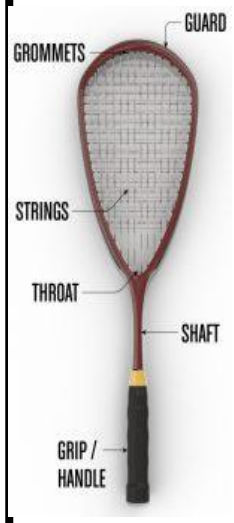
More tests for metal ions

Some metal hydroxides are insoluble. Therefore if some drops of sodium hydroxide are added to a solution of the metal hydroxide a precipitate may form. Transition metal hydroxides are usually coloured. Where as main group elements normally form a white precipitate.

Gas	Colour of precipitate	Ionic Equation
Magnesium Mg^{2+}	White	$Mg^{2+}+ 2OH^- \rightarrow Mg(OH)_2$
Calcium Ca^{2+}	White	$Ca^{2+}+ 2OH^- \rightarrow Ca(OH)_2$
Iron(II) Fe^{2+}	Green	$Fe^{2+}+ 2OH^- \rightarrow Fe(OH)_2$
Iron(III) Fe^{3+}	Brown	$Fe^{3+}+ 3OH^- \rightarrow Fe(OH)_3$
Copper Cu^{2+}	Blue	$Cu^{2+}+ 2OH^- \rightarrow Cu(OH)_2$
Aluminium Al^{3+}	White initially. In excess NaOH it dissolves to form a colourless solution.	$Al^{3+}+ 3OH^- \rightarrow Al(OH)_3$

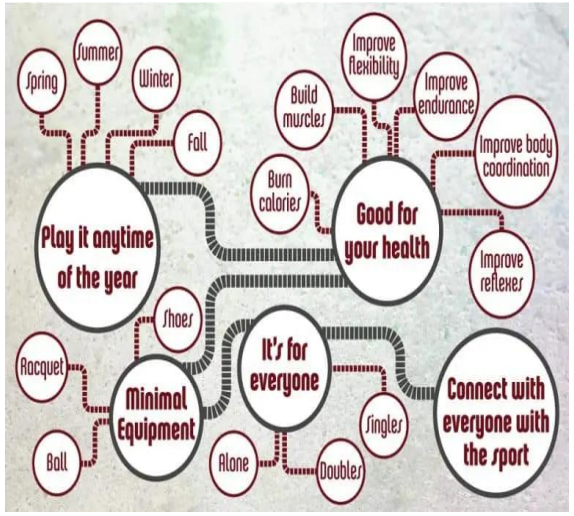
Revision resources

Year 9 and 10 Knowledge Goals: Cambridge Sport- Squash



Basic Rules:

Players use the walls of the court to bounce the ball at different angles and speeds in the attempt to make their opponents miss. The goal is to make the ball unplayable by the opponent. With a confined space and unpredictable ball, this isn't always the easiest task.
One point is awarded when a player fails to return the ball after a single bounce. A match consists of five sets, and the winner of the match is the player that takes three of five sets.
Squash is played in singles or doubles. Singles is a one on one match where the players can move anywhere on the court. Though Squash courts are relatively small, even on a doubles court, it is possible to fit four people on the court with one player from each team playing the forehand and the other playing the backhand.



Scoring:

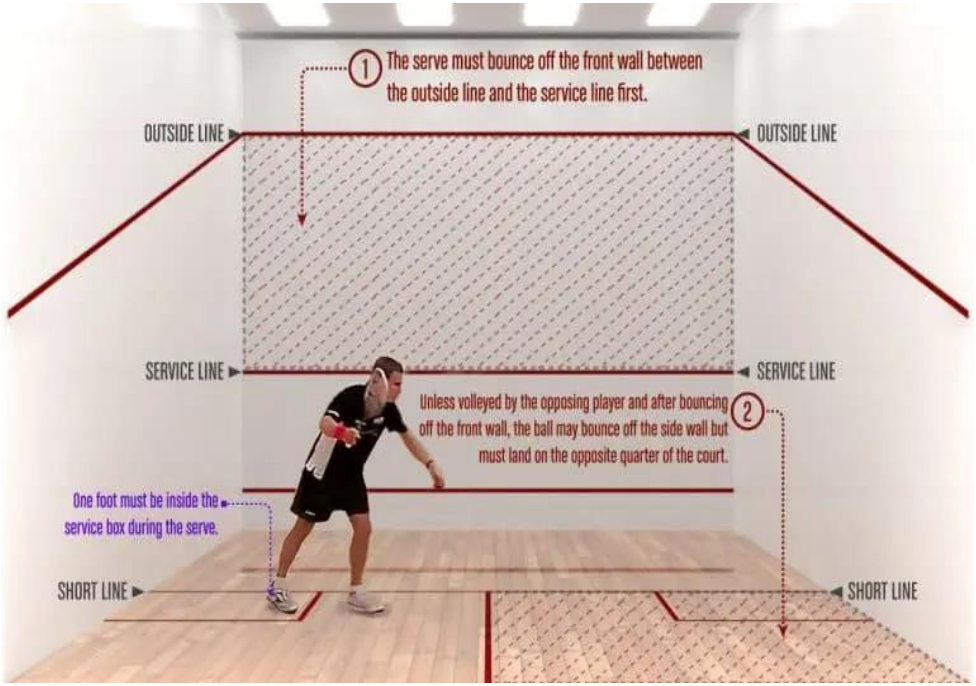
- Squash is usually played in a best of five format with each match being played to 11 points.
- The game must be won by 2 points, so if the score is tied at 10, it is the first person to pull ahead by 2 that wins.
- A point is scored when the opposing player is unable to return the ball in one or fewer bounces.
- Players can also win a point if the opposing player interferes with their shot, hits the ball out of bounds, or the serve does not follow the rules.

Tactics:

Dominating the T:
This is one of the most popular strategies in the game because it puts you in the center of the court to return your opponent's hit without needing to move too far in any direction. The best way to dominate the T is to volley a lot and use low drives. As soon as you hit the ball, you should return to the T. When you take your first shot, whether you are serving or receiving, it is important to make your opponent run to retrieve the ball so you can position yourself in the T.

Wear Your Opponent Out:
Another widely used strategy is to make your opponent work for their shots. The goal is to make your opponent move as much as possible, which requires a combination of different shot styles. For instance, you may want to start with a lob that makes your opponent back up to hit the ball then return their return with a low drive that forces them to run forward. After a while, your opponent will begin to tire, and tired opponents make mistakes.

Change Direction:
In the game of Squash, unpredictability is key. The whole point of the game is to make sure your opponent doesn't hit their next shot, so the best strategy you can have is to confuse them as to where the ball is going. This can be done in several ways, but the best way is to use a few drop shots, then a boast shot, followed by a cross-court shot.



Year 9 and 10 Knowledge Goals: Cambridge Sport- Squash

Tier 3 Vocabulary		
Key word		Definition
1	T-position	Central spot where you recover to.
2	let	Replay of the point.
3	stroke	Point awarded due to interference.
4	nick	Ball lands where side wall meets floor – hard to return.
5	volley	Hitting ball before it bounces.
6	drive	Straight shot to push opponent back.
7	boast	Hits side wall first, pulls opponent forward.
8	drop	Soft shot near front wall.
9	lob	High shot to regain time/position.
10	serve	Sets up the rally; aim for depth and placement.
11	backhand	Where your hand is facing away from the direction of the ball, and your arm is across your body.
12	cross Court	A shot that is hit from one side of the court to the other.

Notes:

Year 9 and 10 Knowledge Goals: Cambridge Sport- Orienteering

Rules:

The main aim of orienteering is to complete the set course by finding control markers in the correct order in the shortest time.

Although it Is based on accurate map reading it is also a test of physical fitness.

You must find all the controls you are told to visit and record them on your score sheet.

You have to consider the terrain you are moving over ensuring your safety and the safety of any team members at all times, taking into account the varying fitness level of all your team members.

If you are working in a team, you must share the responsibility of finding the controls and make sure that all members of your team have an opportunity to problem solve to find each of the controls.

Team work is necessary when you are completing an orienteering course with others. You must communicate and discuss each decision before navigating to the next control point. Mistakes can easily be made through poor communication.

You and your team must find the controls yourself and not shout out control symbols to others

In order to be given a finish time for finding controls the whole team has to finish together.

Skills and Techniques :

Orienteering is a sport that require **navigational skills** using a **map and compass** to **navigate** from point to point in **diverse** and often unfamiliar **terrain** whilst moving at **speed.** Participants are given a **topographical map**, usually a specially prepared orienteering map, which they use to find **control points**.

Running activities: All lessons start with running activities to encourage pace and speed. Cardiovascular fitness is required over different types of terrain.

Observing surroundings: Look at your surroundings (playground/ cage/ grass areas/ tree) and identify key features that help you find your precise location. You need to observe your surroundings before looking for markings on a map.

Orientating a Map. You need to orientate your map (move it) to line up with the key features on the ground and check it is the correct way round to the direction you are facing.

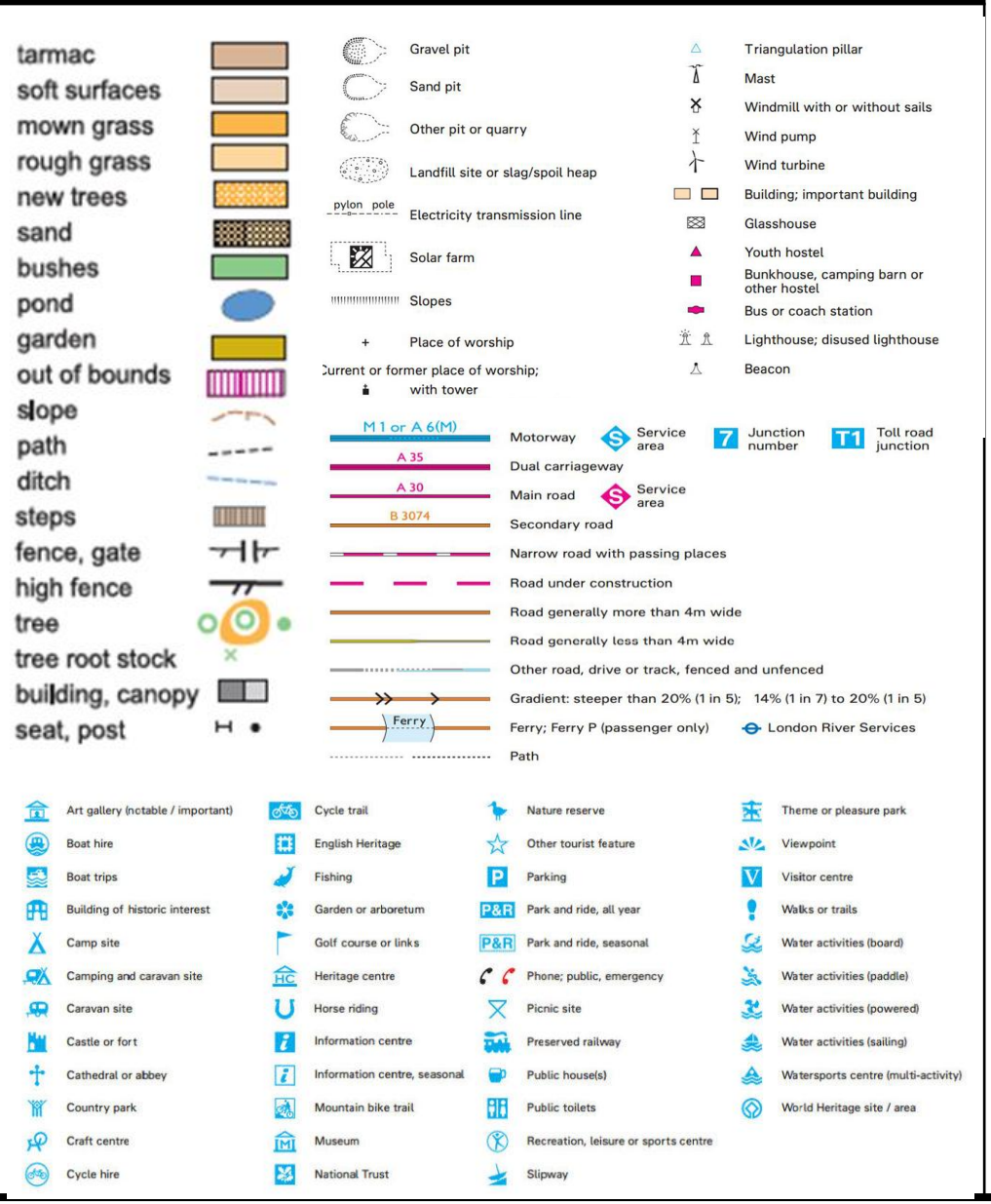
Directions: - understand the Cardinal Markers – North, South, East and West and their relation to features on the ground and to places beyond the school site.

Map Reading – Recognise symbols on a map, be able to use a key to recognise symbols and colours on an orienteering map.

Human features: Know that a human feature is influenced by man (buildings, benches, fences, walls)

Physical Features: Know that a physical feature is natural (rivers, beaches, hills, forests)

Key:



Year 9 and 10 Knowledge Goals: Cambridge Sport- Orienteering

Tier 3 Vocabulary		
Key word		Definition
1	orienteering	A competitive outdoor sport that involves navigating through unfamiliar terrain with a map and compass to reach a series of checkpoints in the correct order.
2	map scale	The ratio of distance on the map to the corresponding distance on the ground. For example, 1:25,000 means 1 unit on the map equals 25,000 units in real life.
3	contour lines	Lines drawn on a map that connect points of equal elevation, showing the shape and steepness of the terrain.
4	point of interest (POI)	A location or feature marked on a map that may be of significance for navigation or land use, such as a river, mountain, or landmark.
5	checkpoint	A designated point on an orienteering course where participants must stop to verify their location, usually by punching a control card or marking it electronically.
6	control Flag	A physical marker at a checkpoint that consists of a brightly coloured flag, often with a punch or electronic device to mark the participant's progress.
7	leg	A section of the orienteering course between two checkpoints. The term "leg" is often used to describe the route participants must navigate between specific control points.
8	pacing	A technique used to measure distance travelled by counting steps or paces. This can help an orienteer estimate their progress when no obvious landmarks are present.
9	terrain features	Natural and man-made features of the landscape that are shown on orienteering maps, such as hills, streams, roads, buildings, and other landmarks.
10	relay orienteering	A form of orienteering where teams of participants take turns completing sections of the course, typically passing a baton or electronic chip between them.

Notes:

KS4 Knowledge Goals: Careers

Why Thinking About Your Career and Education Is Important.

1. It Helps You Make Informed Choices

In KS4, you start to make decisions that shape your future — such as what to study after Year 11. Thinking about your career early helps you understand what qualifications, subjects, or experiences you'll need for your next steps. For example, some college courses or apprenticeships require specific GCSEs, so planning ahead keeps your options open.

2. It Gives You Direction and Motivation

Knowing what you're working towards can make school feel more purposeful. When you have a goal — even a rough idea — you're more likely to stay focused, put in effort, and make the most of opportunities like work experience or volunteering.

3. It Builds Employability Skills

Exploring different careers helps you see which skills employers value, such as teamwork, communication, creativity, and problem-solving. KS4 is the perfect time to start developing these through lessons, clubs, part-time work, or community projects.

4. It Helps You Choose the Right Path After GCSEs

At the end of KS4, you'll choose whether to study **A-levels**, **BTECs**, **T Levels**, or begin an **apprenticeship**. Thinking about your career goals now makes it easier to choose the pathway that suits your strengths, interests, and learning style.

5. It Prepares You for the World of Work

The world of work is changing fast — with new technologies, industries, and opportunities appearing all the time. Learning about careers in KS4 helps you understand what's out there and what kinds of jobs might exist in the future.

6. It Builds Confidence in Making Decisions

Career thinking isn't about choosing one job for life — it's about getting to know yourself, exploring your options, and feeling confident about your choices. The more you understand your interests and strengths, the more independent and prepared you'll be for life after school.

Exploring Careers

You should look and explore a wide range of career areas. You can do this by:

•Using websites like **National Careers Service**, **BBC Bitesize Careers**, or **icould.com** to discover different job roles.

•https://nationalcareers.service.gov.uk/
•https://www.bbc.co.uk/bitesize/careers
•https://icould.com/

Skills for the Future

Employers value not just qualifications, but also transferable skills.
Skills you are already developing in school are:

- **Communication and Oracy**
- **Teamwork and Leadership**
- **Creativity and Problem-Solving**
- **Resilience and Self-Management**
- **Digital and Research Skills**

Keep a record of these achievements — they'll help when applying for college, apprenticeships, or jobs later.

Top 5 Skills Employers Want

1.Communication Skills. Being able to speak, listen, and write clearly. Explaining your ideas, giving feedback, and working well in teams.

2.Teamwork. Working well with others to achieve a goal. Sharing ideas, helping colleagues, and respecting different opinions.

3.Problem-Solving. Finding solutions when challenges or unexpected situations arise. Thinking creatively and logically to overcome obstacles.

4.Resilience & Adaptability. Staying positive and keeping going even when things are difficult. Being flexible when things change at work or school.

5.Organisation & Time Management. Planning your work and managing deadlines effectively. Prioritising tasks and being responsible for your own progress.

KS4 Knowledge Goals: Careers

Tier 3 Vocabulary

1.Apprenticeship – A paid job where you learn practical skills and gain a qualification while working for an employer.
2.Vocational – Education or training that focuses on learning skills for a specific job or career (for example, catering, construction, or childcare).
3.Entrepreneur – A person who starts and runs their own business, often taking risks to develop new ideas or products.
4.Industry – A group of businesses that make similar products or provide similar services (for example, the fashion industry or the technology industry).
5.Qualification – A certificate or award that shows you have successfully completed a course or passed an exam.
6.Employability – The skills, qualities, and attitudes that help you get and keep a job (such as teamwork, communication, and reliability).
7.Internship – A short-term work experience placement that helps you learn about a career and develop skills.
8.Networking – Building professional relationships and connections that can help you learn about job opportunities or career paths.
9.Portfolio – A collection of your best work or achievements that shows your skills and progress (often used in creative subjects like art or design).
10.Labour Market – The world of work, including all the jobs available, the skills employers need, and the trends in different industries.

Quiz: What career is right for me? - BBC Bitesize

The UCAS Careers Quiz – personalised career matches | UCAS

Home | Discover your skills and careers | National Careers Service

Career Quiz - Youth Employment UK

Your career, your choice! Know your options…

Sedbergh Senior - Sixth Form | Sedbergh School

Windermere School Sixth Form | IB World School

Kendal College | Home

Lancaster & Morecambe College

Welcome - Kirkbie Kendal School

The Queen Katherine - Sixth Form

Sixth Form - QES

Sixth Form – Kirkby Stephen Grammar School

Take some of these quizzes to help you plan your future career!

What Career Is For Me? | UK Career Quiz | Explore Careers UK

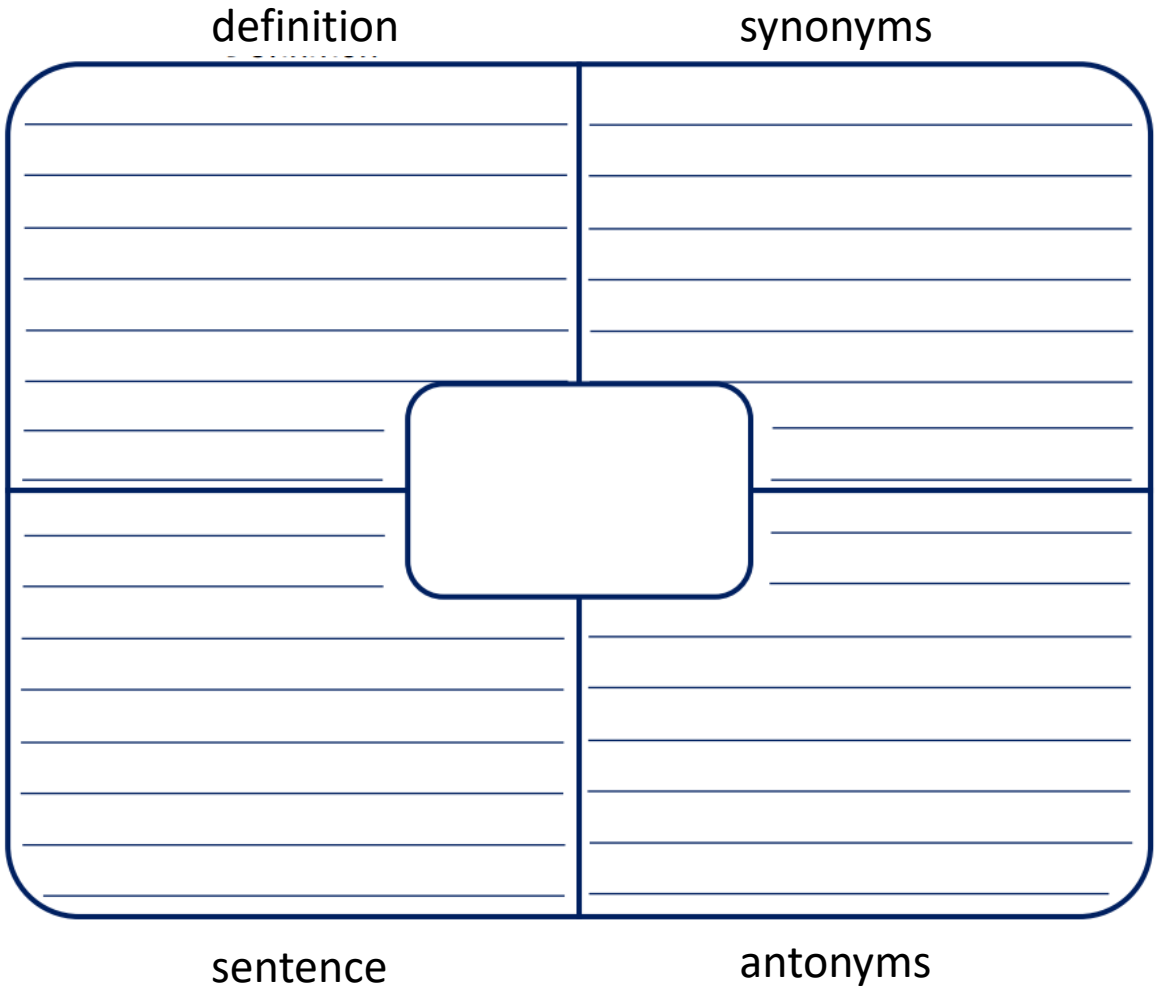
Tier 2 Vocabulary

ablution	abrasion	access
acquire	adapt	adequate
advocate	aggressive	albeit
alleviate	alter	altitude
ameliorate	analogous	analyse
behind	benign	beverage
bewitch	brawl	budge
calamity	calculate	callous
capacity	cause	central
challenge	chant	chirp
chore	circulate	claim
clear	collaborate	collude
command	committee	companion
compare	complex	confer
debate	decisive	decompose
define	delineate	deny
deteriorate	detrimental	dimension
disagree	discover	direct
eccentric	ecstasy	eloquent
emerge	emphasis	employ
encounter	epic	epitome
era	escalate	establish
evaluate	excavate	explore
farce	ferocious	flaw
flighty	formidable	function
ginormous	grapple	grizzly
hamper	harmful	harness
hierarchy	hitch	honour
hybrid	hypothesis	hysteria
identical	identify	ignorance
illusion	illustrate	immense

impeccable	imperative	impression
inevitable	innate	intense
interact	intercept	irreversible
jaunt	jubilant	justify
legacy	liberal	liberate
malicious	manipulate	match
measure	menace	meteoric
migrate	misconstrue	mitigate
native	network	notation
notice	notion	numeral
objective	observe	occupy
ointment	opaque	opponent
overall	overstate	overthrow
pallid	parallel	partition
persevere	persuade	pigment
pivot	pledge	ponder
pose	precedent	prepare
presume	previous	principal
radiant	raucous	ravage
rearrange	reckless	recline
refine	reflect	region
rejoice	relate	remote
replace	request	require
revise	rewrite	rhythm
salvation	scheme	sculpt
shift	shrewd	significant
slither	solar	sparse
specify	stability	state
supreme	surge	synonymous
tamper	technique	teeming
tentative	testament	transform

treaty	trivial	troublesome
underestimate	unscathed	update
validity	vanquish	verbose
verify	versatile	version
vibrant	victor	victory
virtuous	welfare	zealous

Literacy: Tier 2 Vocabulary – Frayer Model



Synonyms are words with the same or similar meaning:

- words such as happy, cheerful and merry.
- words such as sad, miserable and heartbroken.

Antonyms are words with opposite meanings:

- words such as angry and peaceful.
- words such as funny and serious.

You can use a **thesaurus** to find **synonyms** and **antonyms** for words.

Scan to view thesaurus

click to view thesaurus

Have a go at creating a Frayer Model for each of the 6 tier 2 words from this term (blank templates are at the back of the booklet for you to complete this activity).

Frayer Model: Adapt

definition

synonyms

adapt

sentence

antonyms

Complete a Frayer Model for the word **adapt.**

Scan to view thesaurus

click to view thesaurus

Frayer Model: Escalate

definition

synonyms

escalate

sentence

antonyms

Complete a Frayer Model for the word **escalate.**

Scan to view thesaurus

click to view thesaurus

Frayer Model: Flaw

definition

synonyms

flaw

sentence

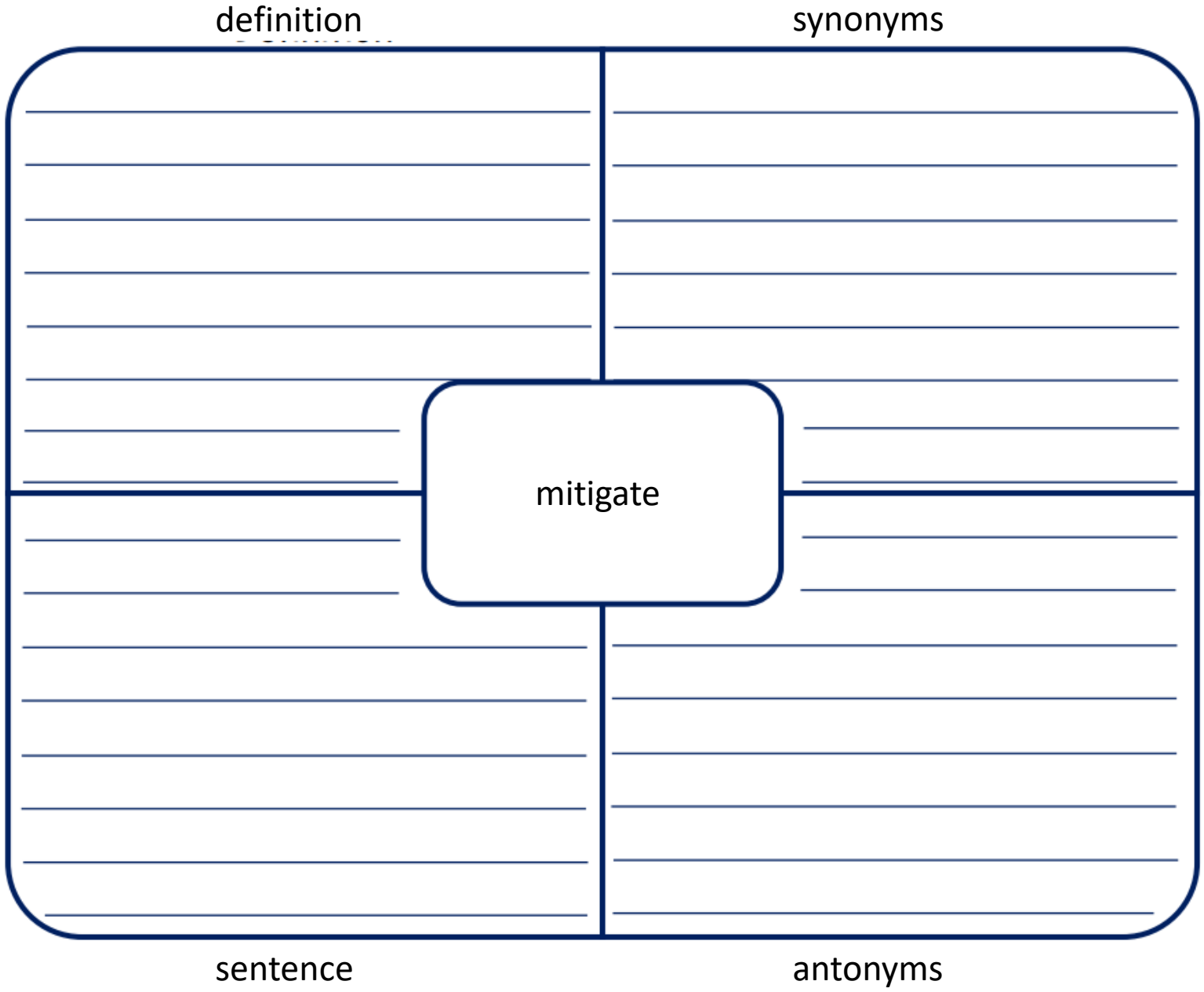
antonyms

Complete a Frayer Model for the word **flaw.**

Scan to view thesaurus

click to view thesaurus

Frayer Model: Mitigate



Complete a Frayer Model for the word **mitigate.**

Scan to view thesaurus

click to view thesaurus

Frayer Model: Partition

definition

synonyms

partition

sentence

antonyms

Complete a Frayer Model for the word **partition.**

Scan to view thesaurus

click to view thesaurus

Frayer Model: Sparse

definition

synonyms

sparse

sentence

antonyms

Complete a Frayer Model for the word **sparse.**

Scan to view thesaurus

click to view thesaurus