

Knowledge Goals Homework Booklet 4 (Summer Term 2024)

Year 9 and 10

Name: _____



Subject	Page Number
Art and Design	8
Computer Science	10
Design and Technology	13
Drama	15
English	17
Food Nutrition and Preparation	28
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6 Tier 2 words	64

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

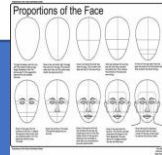
To help you get organised, we have planned out your weekly homework slot for each subject.

Subject Homework Frequency Information

Subject	Homework
Art	Fortnightly
Computer Science	Fortnightly
Design and Technology	Weekly
Drama	One per half term
English	Weekly
Food Technology	Weekly
French	Weekly
Geography	Weekly
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

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

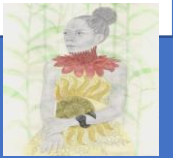
Parent information on knowledge retrieval:



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.

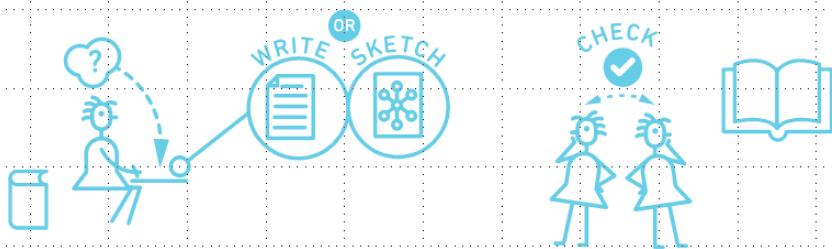
Your teacher may choose to set you additional homework.

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.

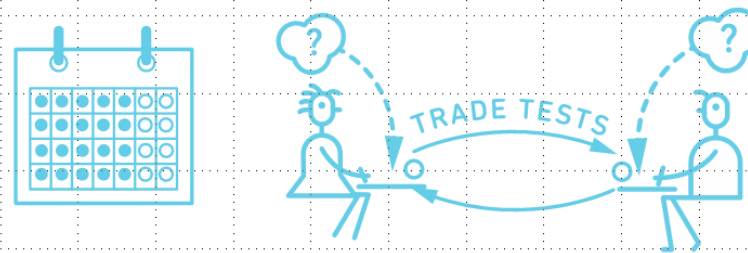
HOW TO DO IT

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.



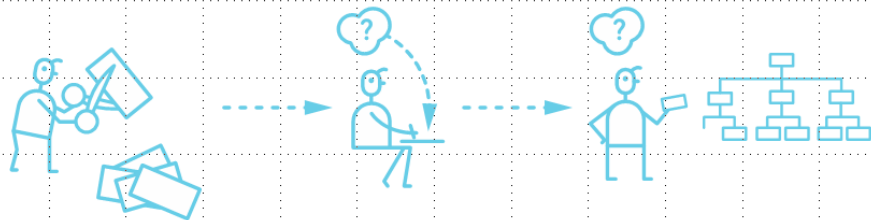
HOW TO DO IT

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.



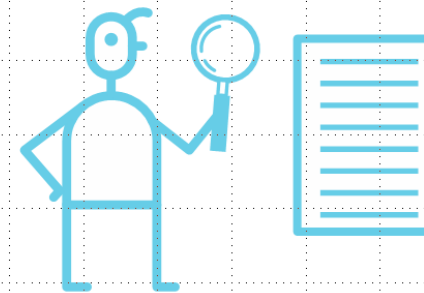
HOW TO DO IT

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	Insinuate	To suggest or hint slyly.
2	Agitate	To move or force into violent, irregular action.
3	Anticipate	To realise beforehand; foretaste or foresee.
4	Chronological	Arranged in the order of time.
5	Diversity	The state or fact of being diverse; difference; unlikeness.
6	Exhibition	An exhibiting, showing, or presenting to view.
7	Impartial	Not partial or biased; fair; just.
8	Libel	Anything that is defamatory or that maliciously or damagingly misrepresents.

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.

Literacy: Tier 2 Vocabulary

Tier 2 Vocabulary		
	Key word	Definition
9	Narrate	To give an account or tell the story of (events, experiences, etc.).
10	Prominent	Standing out so as to be seen easily; particularly noticeable.
11	Relinquish	To renounce or surrender (a possession, right, etc.).
12	Suspense	A state or condition of mental uncertainty or excitement, as in awaiting a decision or outcome.
12	Tentative	Of the nature of or made or done as a trial, experiment, or attempt.
13	Unanimous	Of one mind; in complete agreement; agreed.
14	Variable	Apt or liable to vary or change; changeable.

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.

Famous artists that use the human figure as a subject.

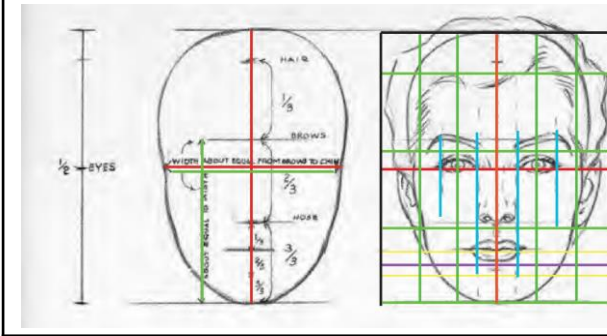
- 1. Leonardo da Vinci** - Known for his iconic paintings such as the "Mona Lisa" and "The Last Supper," da Vinci's works often feature meticulously rendered human figures with lifelike details.
- 2. Michelangelo** - Renowned for his sculptures like "David" and the ceiling of the Sistine Chapel, Michelangelo's mastery of the human form is evident in his works.
- 3. Raphael** - Another Italian Renaissance master, Raphael's paintings, such as "The School of Athens," often depict idealized human figures in harmonious compositions.
- 4. Rembrandt van Rijn** - A Dutch Golden Age painter, Rembrandt's portraits and biblical scenes are celebrated for their expressive use of light and shadow to render the human form.
- 5. Vincent van Gogh** - While perhaps best known for his vibrant landscapes and still life, van Gogh also created numerous artworks featuring people, such as "The Potato Eaters" and his self-portraits.
- 6. Pablo Picasso** - A pioneering figure in the development of Cubism, Picasso's fragmented and abstracted representations of the human figure revolutionized modern art. Works like "Les Femmes d'Alger" exemplify his innovative approach.
- 7. Auguste Rodin** - A French sculptor, Rodin's bronze and marble sculptures, including "The Thinker" and "The Kiss," are celebrated for their emotional depth and realism.
- 8. Henri Matisse** - Known for his bold use of colour and simplified forms, Matisse frequently depicted the human figure in his paintings, drawings, and sculptures, often in vibrant and dynamic compositions.
- 9. Egon Schiele** - An Austrian painter known for his raw and expressive depictions of the human body, Schiele's works often explore themes of sexuality and mortality.
- 10. Frida Kahlo** - A Mexican artist celebrated for her introspective self-portraits, Kahlo's paintings often incorporate symbolic depictions of the human figure to explore themes of identity, pain, and resilience.

[Human Figure Coursework Guide | Tate](#)

[These 20 Female Artists Are Pushing Figurative Painting Forward | Artsy](#)

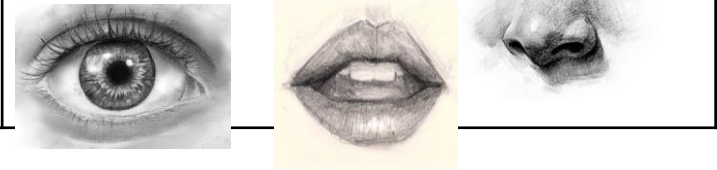
For most artists who draw, paint – or sculpt – 'from life' their fascination with the human figure is much more than simply creating an accurate representation of their model. The painter [Lucian Freud](#) spent 60 years drawing and painting the human figure, mainly using friends and family as his models.

Proportions of the face, Visual guide.

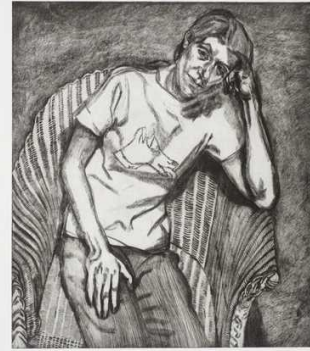


Tutorials

- [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](#)



Example of observational pencil drawings of facial features.



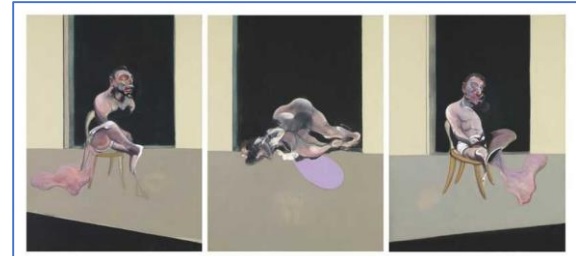
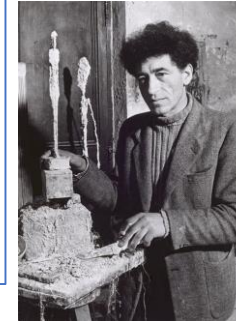
Lucian Freud
[Bella in her Pluto T-Shirt](#) (1995)
Tate
© [The Lucian Freud Archive / Bridgeman Images 2023](#)

Artistic Style:

Giacometti's style evolved over the years, but he is best known for his post-World War II work, which focused on the human figure. His sculptures often depicted emaciated figures with elongated limbs, reflecting his interest in the perception of reality and the human condition. His work is often associated with Existentialism, a philosophical movement prevalent in post-war Europe.



Giacometti



Francis Bacon [Triptych August 1972](#) (1972)
Tate

[Francis Bacon's](#) twisted figures express a powerful sense of the psychological pain and anguish that people sometimes experience. He used photographs from books and magazines as the starting point for many of his paintings.

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. **Facial Features:** Elements such as eyes, nose, mouth, ears, and eyebrows that make up the face.
5. **Shading:** The use of light and dark areas to create the illusion of form and depth.
6. **Highlight:** The brightest area in an artwork, often indicating where light is directly hitting the subject.
7. **Shadow:** The dark areas in an artwork created by the blocking of light.
8. **Profile:** A side view of the face or a drawing that represents this view.
9. **Foreground:** The part of a picture plane that appears closest to the viewer.
10. **Background:** The part of a picture plane that appears farthest from the viewer.
11. **Expression:** The depiction of emotion or mood in the face.
12. **Self-Portrait:** A portrait an artist creates of themselves.
13. **Human figure:** The whole of a human body
14. **Form:** The 3D shape of a figure
15. **Shape:** The shape of features/body parts.
16. **Anatomy:** The study of the structure of the human body, including muscles, bones, and organs, which is essential for accurately depicting the figure.
17. **Pose:** The specific position or arrangement of the figure's body, limbs, and posture.
18. **Modelling:** The use of light and shadow to create three-dimensional form and volume, enhancing the sense of realism in the depiction of the figure.
19. **Nude:** A depiction of the human figure without clothing, often used to explore themes of vulnerability, beauty, or the idealized form.
20. **Figure Study:** A detailed examination or representation of the human figure, often focusing on specific anatomical features or aspects of form.

QR code



Link to 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.

[Henry Moore's sculptures | Tate](#)

[Leonardo da Vinci's groundbreaking anatomical sketches - BBC Culture](#)

[Anatomy in the Renaissance | Essay | The Metropolitan Museum of Art | Heilbrunn Timeline of Art History \(metmuseum.org\)](#)

Types of network

There are three classifications of network **i**:

- local area networks (LANs) **i**
- wide area networks (WANs) **i**
- personal area networks (PANs) **i**

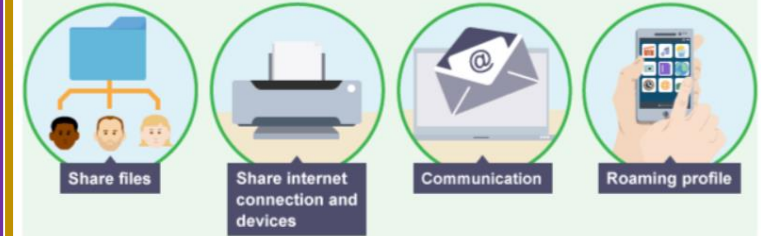
PANs

A personal area network (PAN) is a network that is spread over a very small area. It often covers no more than a few metres and is used to connect personal devices such as a smartphone and wireless headphones or a laptop.

Setting up a PAN using a smartphone is also known as creating a 'hotspot' and makes use of limited Wi-Fi **i** or bluetooth **i** to connect devices.



Advantages



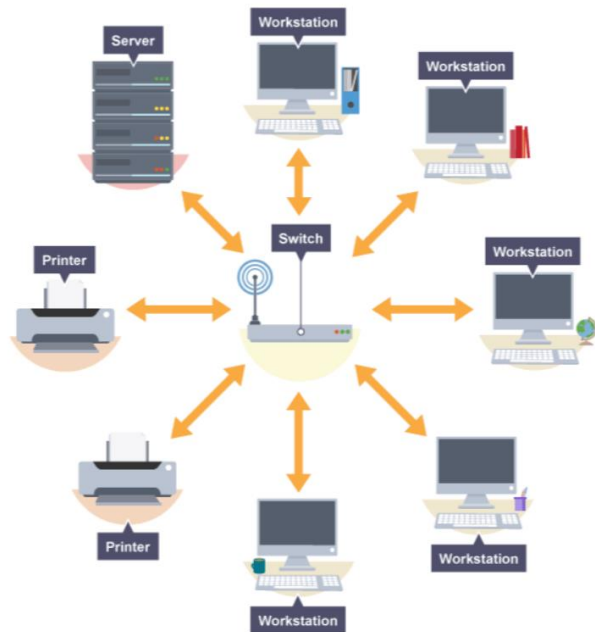
Disadvantages



LANs

A local area network (LAN) is a network that is geographically confined to one building or site. Examples include networks employed by small businesses, small organisations, schools, colleges, universities and in homes.

LANs are owned and maintained by the organisation.



WANs

A wide area network (WAN) is a network that is spread over a wide geographical area. It can cover more than one site, or be spread across a country, or even the world.

Organisations that have more than one office or branch, such as banks, tend to use a WAN. The WAN allows the head office to communicate and share data with the sub-offices and branches. Communication is through national telephone infrastructures or via wireless **i** transmission. While each office or branch has its own LAN, they are connected together using the WAN.

The internet **i** is essentially a huge, international WAN.



Unequal access to technology has caused a Digital Divide

- 1) The **digital divide** is created by some people having **greater access** to technology than others. E.g. people can use the **Internet** to apply for jobs or university courses, access a range of services from banking to retail, and keep in touch with friends. People who have a limited access to the Internet are therefore at a heavy **disadvantage**.

CAUSES OF THE DIGITAL DIVIDE

- Some people don't have enough **money** to buy new devices like smartphones and laptops, which can be very **expensive**.
- **Urban** areas are likely to have greater **network coverage** than **rural** areas.
- Some people **don't know** how to use the Internet and other new technologies, and so are shut out of the opportunities they offer. This is a problem for many **older people** who haven't grown up with computers and so have little experience with them.

- 2) The **global divide** is created by the fact that the level of access to technology is different in different **countries**. People in richer countries tend to have greater access to technology than people in poorer countries. The Internet and other technologies have created lots of opportunities for the people with access to them, so this has **increased** the inequality between poorer and richer countries.

Cyberbullying

- **Cyberbullying** is when somebody uses social media to deliberately **harm** someone else.
- This includes trying to **intimidate**, **insult**, **humiliate** or **defame** someone (damage their reputation).
- Cyberbullying can cause serious **distress** for the victim — people have been driven to suicide because of these attacks.

Censorship

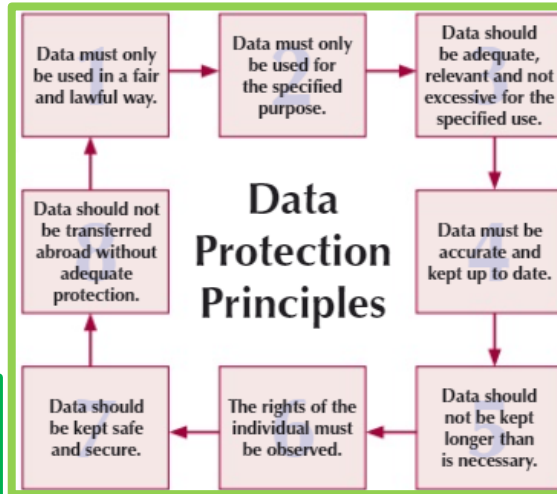
- 1) **Internet censorship** is when someone tries to **control** what other people can access on the Internet. Some countries' governments use censorship to restrict access to certain information.
- 2) Some countries have very **strict** censorship, where they **restrict access** to websites such as Facebook®, YouTube™ and Twitter, or websites that are **critical** of the government. In other countries, citizens can only access the Internet from government-controlled **access points**.
- 3) Many governments use **some form** of censorship. Many countries (including the UK) restrict access to pornography, gambling and other inappropriate websites in order to **protect children**.

Surveillance

- 1) **Computer surveillance** is when someone **monitors** what other people are accessing on the Internet.
- 2) Many countries use some form of surveillance. Government **security services** may use packet sniffers and other software to **monitor Internet traffic**, looking out for certain **key words** or **phrases** that might alert them to illegal activities, terrorism, etc. Often, governments will push for **greater powers** (e.g. access to private emails) to assist in catching criminals, but might face **opposition** from the public.
- 3) In some countries, **Internet Service Providers** (ISPs) **keep records** of all websites visited by all its customers for a certain amount of time, and may be **legally required** to share data with **security services**.

Trolling

- **Trolling** is when somebody tries to cause **public arguments** with others online, only making comments which **frustrate** other people.
- Trolls normally do this for their own **amusement** or to gain **attention**.



Copyright and Patents protect innovation

Cyber Crime is a major problem

The Computer Misuse Act prevents illegal access to files

When we Make devices we use up Natural Resources

- 1) Electronic devices contain lots of **raw materials**.
- 2) **Plastics** (which are used for casing and other parts) come from **crude oil**.
- 3) Devices also contain many **precious metals** like gold, silver, copper, mercury, palladium, platinum, and indium. Many of these metals only occur naturally in **tiny quantities**.
- 4) Extracting these materials uses lots of **energy**, creates **pollution** and depletes scarce **natural resources**.

When we Use devices we use Energy... lots of it

When we Throw Away devices we create loads of E-waste

- 1) **E-waste** is a huge problem — the world creates **20-50 million tonnes** of e-waste every year. Modern devices have a very **short life** before they're discarded — either because they **break** or because people want to **upgrade** (particularly with smartphones).
- 2) **Device manufacturers** and **retailers** can contribute to this problem. The latest **mobile devices** can provide **convenient** and **exciting features** for customers, but this can encourage users to **replace** their devices **more frequently**, which creates lots of e-waste. Short **warranties** (e.g. 1 year) can also make **replacing** or **upgrading** a device a better option than **repairing** it.
- 3) The Waste Electric and Electronic Equipment (**WEEE**) directive was created to tackle the e-waste problem. The WEEE has rules for disposing of e-waste **safely**, to promote **reuse** (e.g. refurbishing broken devices to use again) and **recycling** (e.g. extracting the devices' **precious metals**).
- 4) To **cut costs** a lot of e-waste is sent to certain African and Asian countries which have less strict regulations. Here, most of it ends up in **landfill** and can be a hazard — toxic chemicals can leak into the **ground water** and harm wildlife.



Tier 3 Vocabulary

	Key word	Definition
1	Network	A group of interconnected computers/devices
2	LAN	Local area network. A network of computers that covers a small area, e.g. a school or college.
3	WAN	Wide area network. A network that spans across a building, buildings or even countries, e.g. the internet.
4	Client-server	A relationship in which data or web application is hosted on a server and accessed by client computers.
5	Peer-to-peer	A relationship where all computers on the network share responsibility and there is no one central server.
6	WAP	A device that connects computers to a network using Wi-Fi.
7	Switch	A device for connecting computers to a network using Wi-Fi.
8	Ethics	Moral principles or rules, which govern a person's attitudes and behaviour.
9	Environmental issues	The impacts of the manufacture of devices, the resources used and the power needed to run devices.

Notes:

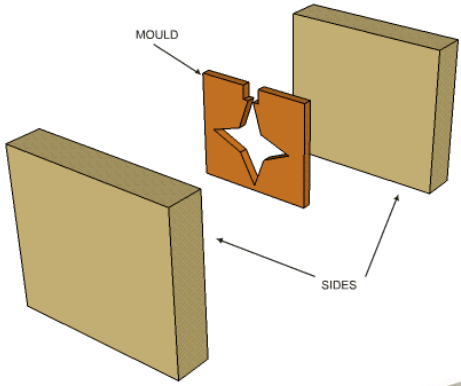
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Quiz Link

[Link](#)

Pewter Casting



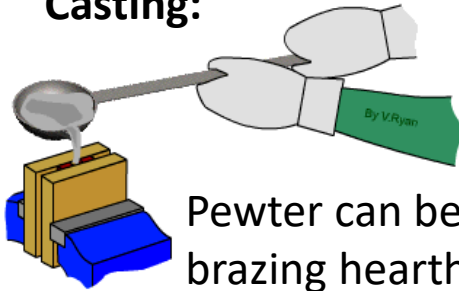
MDF mould made on the laser cutter with a 2D Design CAD file.



Pewter ingot bought in 1kg bars

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

Casting:

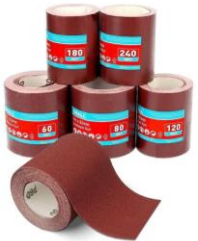


Pewter can be cast using a brazing hearth and spoon or the safer melting cabinet.

Polishing:

Step 1:

Big to small grit aluminium oxide



Step 2: wire wool.

Step 3: Metal polish



NON-FERROUS METALS PEWTER

Pewter is a soft, malleable alloy, 85% to 99% tin. Other metals are copper, lead, antimony and bismuth. Has a low melting point compared to many metals (170–230 °C) making it highly suitable for casting.

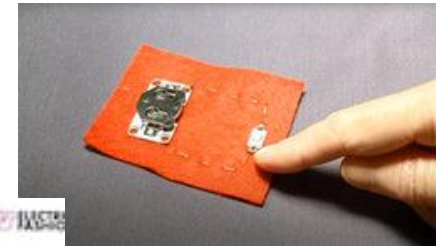
Usually purchased in ingots and cast to shape in a workshop.

Used for making tankards and other decorative pieces.

E - Textiles

Creating a simple stitched circuit using conductive thread.

Conductive thread



Battery



Battery Holder



LED



Switch



THERMOCHROMIC
PHOTOCHROMIC

Change colour in reaction to heat = thermochromic.

Change colour in reaction to UV light (solar) = photochromic.

ENCAPSULATION

Fabrics contain tiny bubbles filled with a chemical or liquid.

Friction 'pops' these bubbles and releases the liquid.

Products can play an important role within medicine and health.

Soft switch electronic circuits or power sources.

Can be used to add LED's, GPS trackers, Solar panels or charging systems into clothing and accessories.

ELECTRONICS

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

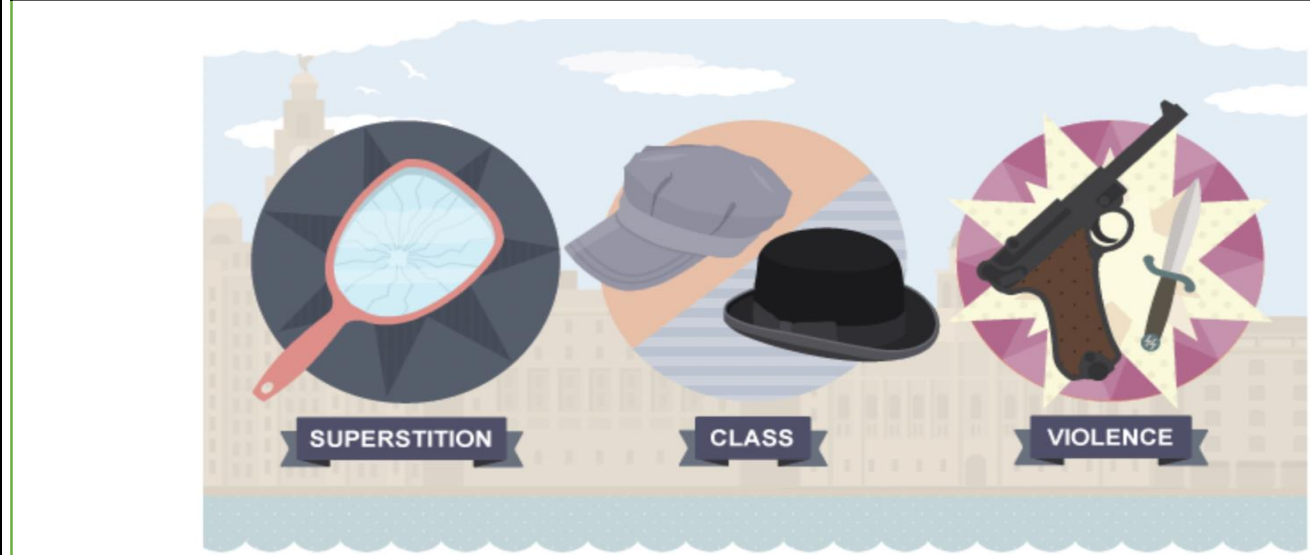
[Link](#)

Summary

Blood Brothers, a musical by Liverpoolian 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



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](#)

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
<p>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 –</p> <ul style="list-style-type: none"> • 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. 	<p>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 –</p> <ul style="list-style-type: none"> • expresses challenging ideas/information/feelings 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. 	<p>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 –</p> <ul style="list-style-type: none"> • expresses sophisticated ideas/information/feelings 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.

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?

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/database>

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?

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.

Tier 3 Vocabulary

Key Word		Definition
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.

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.

Tier 2 Vocabulary

Key word		Definition
9	Mandatory	Compulsory by law.
10	Diversity	Including people from a range of different social and ethnic backgrounds and of different genders and 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.
15	Abolish	To put an end to, eradicate, terminate.

Three Steps to Reading an Unseen Poem

STEP 1: Read for Understanding

- Who is speaking?
- Who is being addressed?
- What is the speaker talking about?
- Where is the poem set?
- What is the 'story' of the poem

STEP 2: Read for Meaning

- What is the poem about thematically? (nature, family, childhood?)
- What 'big idea' is the poet trying to communicate?
- What attitude does the poem express about this 'big idea'?
- Is it positive or negative?

STEP 3: Zoom In and Annotate

- What does the title of the poem tell us?
- How does the poem start?
- Highlight the three most important and interesting images in the poem.
- Highlight any other interesting words/phrases in the poem.
- Does the tone shift at any point?
- How does the poem end?

How to Understand a Poem

Read the title and pause.

What can you infer from first glance?



Read the poem... then read it again!

Take mental notes of anything that stands out!



What is the story?

What do you think the story is the author is trying to tell you?



How does the poem appear?

Why did the author arrange this poem on the page the way he/she did?



How does the poem sound?

Why did the author make his/her poem sound the way it does?



What words stand out?

Why did the author select these specific words?



Is there any figurative language?

What figurative language, if any, did the author include... and why?



What is the message of this poem?

What is a theme of this poem? A poem can have more than one theme.



Can you relate?

How do you connect with this poem?



What is a poem?

A poem can be short or long, rhyme or not rhyme, be put to music (songs lyrics), be spoken aloud or simply read, be simple or profound (sometimes simple IS profound!), serious or silly... A poem can be anything you want it to be!

You do not need to:

understand every word or line;

know what every line means;

or search desperately for poetic techniques.

A personal response to the poem is the most important thing.



SENTENCE STEMS: UNSEEN POETRY

1. **Initially**, the poet...
2. **Later**, the poet...
3. **Furthermore**, the poet...
4. **Crucially**, the poet...
5. **Contrastingly**, the poet...
6. The word / phrase / line / image ' _____ ' is significant **because**...
7. The poet's observation / view / statement that ' _____ ' is relevant **because**...
8. The purpose / message of the poem is important **because**...
9. The poet invites / encourages / challenges / the reader to ' _____ ', **but**...
10. The poet suggests / conveys / states / highlights _____, **but**...
11. **Despite** suggesting that...
12. **Although** the poet uses the image...
13. An **important** word is...
14. An **important** image is...
15. An **important** technique is...
16. An **important** moment is...
17. The word / image / technique ' _____ ' **implies**...
18. The word / image / technique image ' _____ ' **suggests**...
19. The word / image / technique ' _____ ' **emphasises**...
20. The **purpose** of the poem is...
21. The **message** of the poem is...]
22. At the **start** of the poem...
23. As the poem **develops**...
24. At the **end** of the poem...

Unseen Poem

OK. Turn the page. Right, here goes ...
The first line's straightforward, I suppose.
At least I know what the words all mean.
It has an AA BB rhyming scheme.

What's that French word for when one line runs into the next? *Jambon*? Never mind.
Susan Jenkins is smiling, I bet she knows.
Oh great! Now the rhymes have disappeared

and the language is getting more obfuscatory by the stanza. The voice keeps changing.
At first, it was confident. But now it's **confused** uncertain (?) and ... hesitant?

and as for this bit
what was the poet even thinking?

(personally, i think
they must have been drinking)

Susan Jenkins needs more paper.
I hate her. There are ten minutes left.
What's this poem all about anyway?
No idea. I shall just have to guess.

I'll say it's a metaphor for death.

Brian Bilston

Inference Phrases and Synonyms

The writer...		
shows	suggests	draws attention to
demonstrates	implies	accentuates
portrays	connotes	clarifies
illustrates	signifies	reveals
depicts	symbolises	emphasises
expresses	represents	underlines
explains	hints	highlights

Be tentative. Consider using the words '**perhaps**', '**might**' or '**could**' in front of these verbs to soften your stance. Often there is more than one way of reading texts or specific quotations. These words help you to sound like you are aware of this. Your reading is not the only one that exists.

Comparison Discourse Markers

Similarities	Differences
Both...	In contrast,
Similarly,	Whereas,
Equally,	However,
As with...	Alternatively,
Like...	Unlike,
In the same way...	Conversely,
	On the other hand,

General Discourse Markers

Sequencing and ordering	Explaining and building	Alternative Interpretations
To begin with,	In addition,	Nevertheless,
Firstly,	Moreover,	However,
As the poem continues,	What's more...	Alternatively,
Lastly,	Furthermore,	Although...
Finally,	For example,	In contrast,
Ultimately,	For instance,	



Year 9 and 10 Knowledge Goals: The World We Live In – Modern Poetry

Tier 3 Vocabulary

Key Word		Definition
1	stanza	A verse of poetry.
2	enjambment	The continuation of a sentence without a pause beyond the end of a line, couplet or stanza.
3	caesura	A pause (usually signalled by a comma) near to the middle of a line of poetry.
4	onomatopoeia	A word formed by the sound associated with the word. (E.g. cuckoo, crash, sizzle)
5	alliteration	The same letter sound repeated at the start of adjacent words.
6	sibilance	The repetition of the 's' sound at the start of adjacent words.
7	simile	Figurative language involving a comparison using the words 'like' or 'as'.

Tier 3 Vocabulary

Key Word		Definition
8	metaphor	Figurative language involving a comparison where one thing is said to be another.
9	personification	Attributing a human characteristic to something non-human.
10	imagery	Visual description or figurative language.
11	symbolism	The use of symbols to represent ideas or qualities.
12	mood	The atmosphere or feeling of a poem.
13	tone	The general character or attitude of a poem.
14	free verse	Any form of poetry that does not rely on a consistent rhyme or meter.

Tier 2 Vocabulary

Key word		Definition
1	Pyre	A heap of combustible material, especially one for burning a corpse in a funeral ceremony.
2	Predictability	Always behaving or occurring in the way expected.
3	Disintegration	The process of coming to pieces or losing strength or cohesion.
4	Quench	To satisfy a desire, specifically one's thirst.
5	Inertia	To do nothing or to remain unchanged.
6	Cascade	A mass of something that falls or hangs.
7	Replenish	To fill something or again. To restore a supply or stock of something.

Tier 2 Vocabulary

Key word		Definition
8	Mutation	the changing of a structure of a gene resulting in a variant form.
9	Visitation	The appearance of a divine or supernatural being
10	Deliberate	Done consciously and intentionally.
11	Solidarity	Mutual support between people.
12	Chronic	Long-lasting or constantly reoccurring.
13	Austere	Severe or strict manner or attitude. Having no comforts or luxuries. Having a plain appearance.

William "Willy" Russell (born 23 August 1946)

Willy Russell is an English dramatist, His best known works are Educating Rita, Shirley Valentine, Blood Brothers and Our Day Out.

Russell was born in Whiston, (now Merseyside). On leaving school, aged 15, he became a women's hairdresser, eventually running his own salon, until the age of 20 when he decided to go back to college. This led to him qualifying as a teacher. During these years, Russell also worked as a semi-professional singer, writing and performing his own songs in folk clubs. At college, he began writing drama and, in 1972, took a programme of two one-act plays to the Edinburgh Festival Fringe, A writer recommended him to the Liverpool Everyman and his career as a playwright was launched.

What was it like being a working class woman in the 1970s?

- Employment opportunities
- Work life balance
- Labour rights and activism intersectionality
- Social and cultural expectations
- Community and solidarity

Educating Rita

"Educating Rita" is a play by Willy Russell that revolves around the transformation of a working-class woman named Rita, who decides to pursue higher education and enrol in an Open University course. The play explores themes of class, education, and personal growth.

Literary and Cultural References in the play:

- Yeats:** An Irish poet in the early 20th century
- Forster:** A novelist who explores themes of class, culture, and personal relationships.
- Ibsen and Chekhov:** Both playwrights in the late 19th century: Ibsen, Norwegian; Chekhov, Russian known for their realistic portrayals of everyday life
- Blake:** William Blake (1757 – 1827) was an English Romantic poet, painter, and printmaker known for his collection of poems, "Songs of Innocence and Experience"
- Frankenstein:** A novel by Mary Shelley, often seen as an exploration of the consequences of unchecked scientific ambition.
- Pygmalion:** A play by George Bernard Shaw, in which a professor teaches a Cockney flower girl to speak and act like a lady. It explores themes of education and class mobility

More Popular Cultural References recognisable in the 1970s when the play was set::

- **Johnnie Walker** a Scotch whisky drink
- **Rita Mae Brown** (born 1944) : an American feminist writer, best known for her coming-of-age autobiographical novel, Rubyfruit Jungle.
- **Harold Robbins** a novelist who produced popular mass-market fiction about Hollywood stars and glamorous criminals
- **Yates' Wine Lodge** - an English pub chain founded in Oldham, Lancashire by two brothers, Peter and Simon in 1884 and popular with the working class.

Watch the film. Google:

[Educating Rita \(film\) \(1983\) - YouTube - Artem](#)

OR

listen to a radio version Google - **Educating Rita BBC Radio Drama**



Educational Jargon:

- Open University: A distance learning and research university founded by the UK government.
- Tutorial: A class or meeting in which a student receives individual instruction from a tutor.
- Degree: An academic rank conferred by colleges and universities upon completion of a programme of study.
- Literature: Written works, especially those considered of superior or lasting artistic merit.

Social Class Terminology:

- Working-class: The social group consisting of people who are employed for wages, especially in manual or industrial work.
- Middle-class: The social group intermediate between the upper and working classes, including professionals, managers, and white-collar workers.
- Bourgeoisie: The middle class, typically with reference to its perceived materialistic values or conventional attitudes.
- Privilege: A special right, advantage, or immunity granted or available only to a particular person or group.

Personal Development and Identity:

- Self-discovery: The process of gaining insight into oneself, one's beliefs, values, and purpose in life.
- Identity: The qualities, beliefs, personality, looks, and/or expressions that make a person or group

Psychological and Educational Concepts:

- Self-esteem: Confidence in one's own worth or abilities; self-respect.
- Motivation: The reason or reasons one has for acting or behaving in a particular way.
- Growth mindset: Belief that one's abilities and intelligence can be developed through dedication and hard work.
- Transformation: A thorough or dramatic change in form or appearance.



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

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.

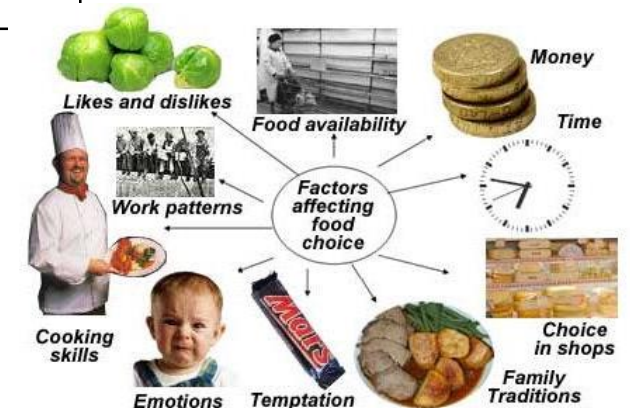
To get the best possible marks in NEA 2 you are to demonstrate your skills as a Chef. The following skills are classed as high level by the exam board.

- 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)

<https://www.youtube.com/watch?v=IEQoD2p-OIY&pp=ygUgbXJzIHdhcmLuZ3MgcG9ydGlvbmluZyBhIGNoaWNrZW4%3D>

Food seasonality



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](#)

Year 9 and 10 Knowledge Goals: French

1. Où habites-tu ?
2. Et ta maison, c'est comment ?
3. Qu'est-ce que tu changerais dans ta maison ?
4. Et ta chambre?
5. Qu'est-ce que tu as fait hier à la maison?
6. Et à la maison, tu aides tes parents ?
7. Alors tu aimes Bury ?
8. Bury est près de Manchester, qu'est-ce qu'il y a pour les touristes ?
9. Et à l'avenir où veux-tu habiter?
10. Alors ta maison idéale, c'est comment ?

- Grande
- Petite
- Moderne ancienne
- vieille

- une chambre
- une cuisine
- une salle de bains
- une salle à manger
- une cave
- une terrasse

- un salon
- un jardin
- un garage

- Une maison individuelle
- Un maison jumelle
- Une maison mitoyenne
- Un cottage
- Un appartement
- Une villa

A. Je fais mon lit
B. Je fais la vaisselle
C. Je fais le repassage
D. Je fais les courses
E. Je fais la cuisine
F. Je fais le jardinage
G. Je fais la lessive
H. Je passe l'aspirateur
I. Je mets la table
J. Je débarrasse la table
K. Je range ma chambre
L. Je lave la voiture
M. Je sors la poubelle

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	Auxiliary verbs	Avoir and être used in the Past tense.

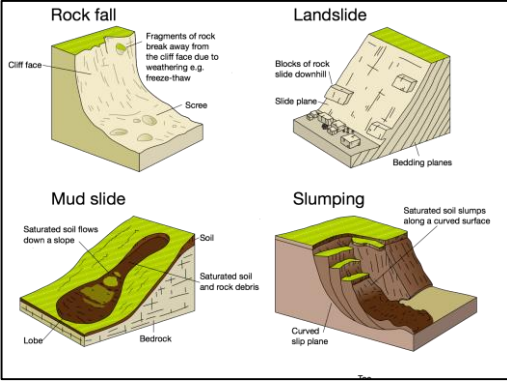
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Languagenut
Exam skills
KS4

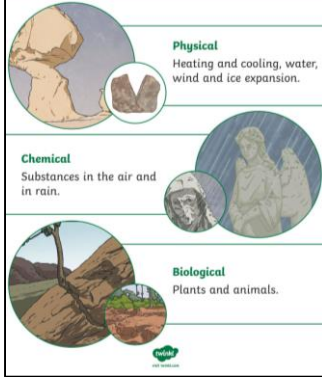
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Types of mass movement



Weathering Types and Causes



Types of Erosion

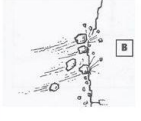
Hydraulic Action
The forces of the waves crashing into the cliff. The air in cracks in the cliff is compressed which breaks up the rock



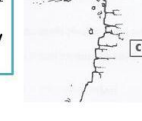
Attrition
rocks and pebbles collide with each other and roll around. They become smaller and more rounded



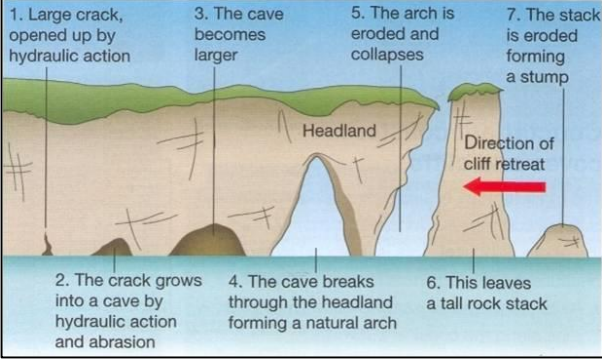
Abrasion
Waves carrying beach material e.g. sand and rocks are thrown against the cliff wearing it away



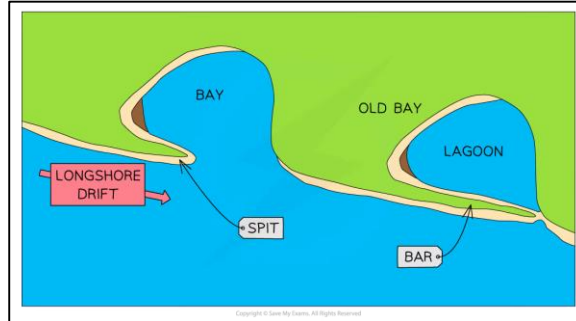
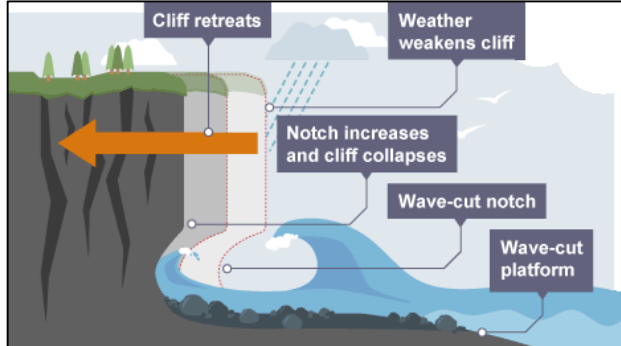
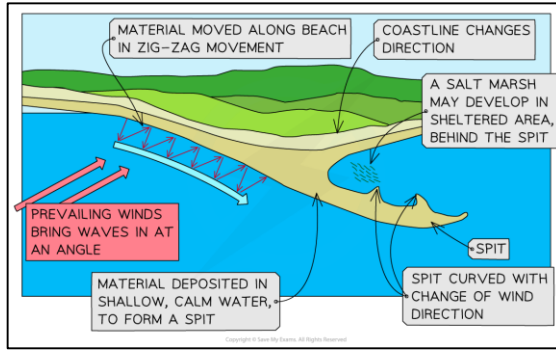
Corrosion (solution)
Is when the cliff dissolves by slightly acidic water.



Erosional Landforms



Depositional landforms.



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

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.

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](#)

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 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; <i>Lebensborn</i> 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 *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 *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	Worse off
<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • 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.

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 particular 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

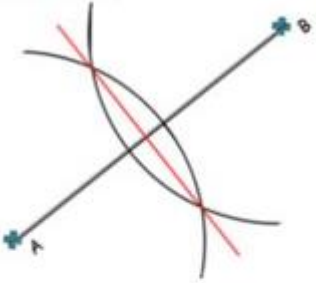
Notes:

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.

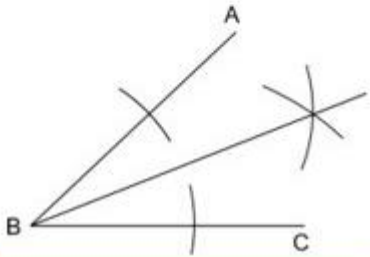
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Key Concepts

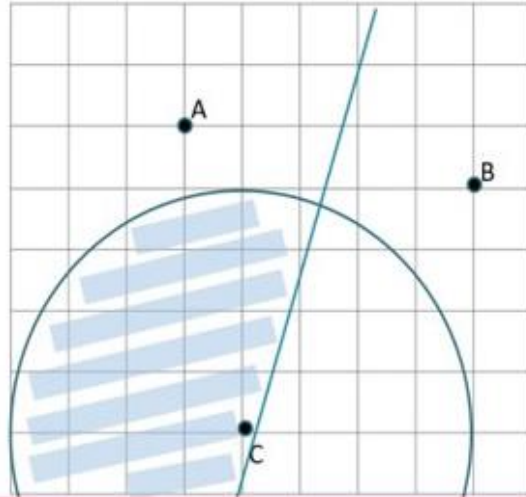
Line bisector



Angle bisector



Examples

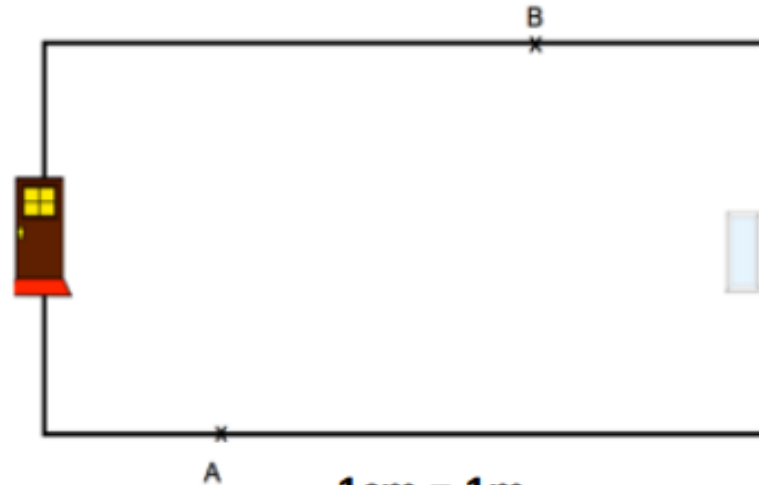


Shade the region that is:

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

Line bisector
of A and B

Circle with
radius 4cm



1cm = 1m

There are two burglar alarm sensors, one at A and one at B.

The range of each sensor is 4m.

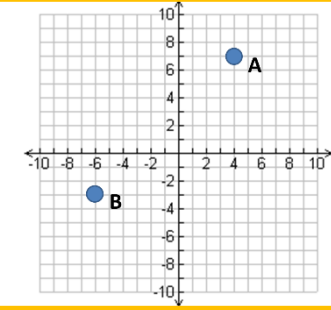
The alarm is switched on.

Is it possible to walk from the front door to the patio door without setting off the alarm?

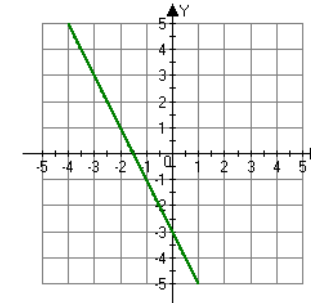
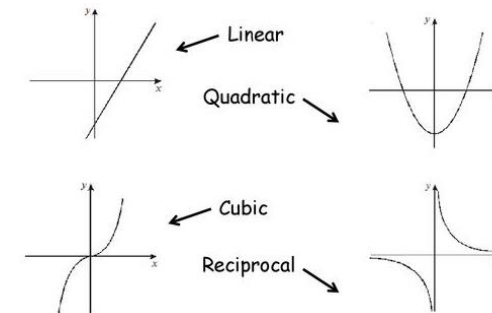
Topic/Skill	Definition/Tips
1. Coordinates	Written in pairs . The first term is the x-coordinate (movement across). The second term is the y-coordinate (movement up or down)
2. Linear Graph	Straight line graph. The equation of a linear graph can contain an x-term , a y-term and a number .
3. Quadratic 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 .
4. Cubic Graph	The equation is of the form $y=ax^3+k$, where k is an number . If $a > 0$, the curve is increasing . If $a < 0$, the curve is decreasing .
5. Reciprocal Graph	The equation is of the form $y=A/x$, where A is a number and $x \neq 0$. The graph has asymptotes on the x-axis and y-axis .

A: (4,7)

B: (-6,-3)



Examples:

 $x=y$ $y=4$ $x=-2$ $y=2x-7$ $y+x=10$ $2y-4x=12$ Types of Graphs

Extra resources:

Corbett
MathsBBC
BitesizeOak
Academy

Tier 3 Vocabulary

Key word		Definition
1	Graph	A diagram showing the relation between variable quantities, typically of two variables.
2	Axis	A fixed reference line for the measurement of coordinates.
3	Coordinate	A point on a grid has two numbers to identify its position. These numbers are known as coordinates.
4	Quadratic	In mathematics, the term quadratic describes something that pertains to squares, to the operation of squaring
5	Solution	A solution is an assignment of values to the unknown variables that makes the equality in the equation true.
6	Cubic	A cubic is a polynomial which has an x^3 term as the highest power of x
7	Reciprocal	A reciprocal graph is of the form $y = \frac{a}{x}$, where a is a constant.
8	Gradient	The gradient is the amount of vertical movement for each unit of horizontal movement to the right.
9	Perpendicular	Two lines are perpendicular if they meet at a right angle.
10	Parallel	Parallel lines are a fixed distance apart and will never meet, no matter how long they are extended.
11	Equation	In its simplest form in algebra, the definition of an equation is a mathematical statement that shows that two mathematical expressions are equal.

Notes:

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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.

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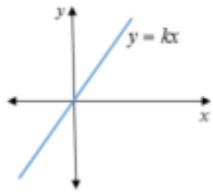
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What you need to know:

Direct vs Indirect Proportion

If y is directly proportional to x :

$$y \propto x \quad y = kx$$

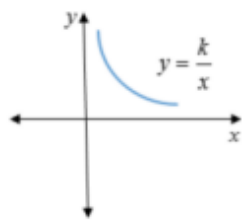


If $y = mx + c$, then k represents the gradient of the line $y = kx$

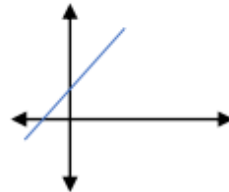
k is the constant of proportionality

If y is indirectly proportional to x :

$$y \propto \frac{1}{x} \quad y = \frac{k}{x}$$



If the line does not pass through the origin, the relationship is not directly proportional.



If you are given a table of values, you can plot them to check

The height h cm of a plastic cylinder is inversely proportional to its radius r cm. A plastic cylinder of height 6cm has a radius of 4cm.

Work out the height of a cylinder with a radius of 3cm.

Step 1 – Write down the formula using k as the constant

$$h = \frac{k}{r}$$

Step 2 – Substitute in the values of y and x

$$6 = \frac{k}{4}$$

Step 3 – Solve the equation to find the value of k

$$k = 24$$

Step 4 – Re-write the original equation substituting k for the actual value

$$h = \frac{24}{x}$$

Step 5 – Substitute the new radius into this equation

$$h = \frac{24}{3} = 8\text{cm}$$

Key Terms:

Direct Proportion: Two quantities increase at the same rate.

Indirect Proportion: As one quantity increases, the other decreases at the same rate.

Best Value: The item that is cheapest per unit/100g, e.g. the box with the lowest price per teabag

Compound Measurement: A measure made up of two or more measurements (e.g. speed, pressure, density)

More Relationships

As well as $y \propto x$ and $y \propto \frac{1}{x}$, watch out for:

y directly proportional to x^2	$y \propto x^2$	$y = kx^2$
y directly proportional to \sqrt{x}	$y \propto \sqrt{x}$	$y = k\sqrt{x}$
y indirectly proportional to x^2	$y \propto \frac{1}{x^2}$	$y = \frac{k}{x^2}$

You need to be able to:

- Use standard units of measure, e.g. time, length, mass
- Use compound units of measure, e.g. speed, density
- Rearrange equations to solve for unknowns
- Use the equations for direct/indirect proportion to find the constant k
- Recall and use the formula for compound interest
- Change g/cm^3 to kg/m^3 , kg/m^2 to g/cm^2 , m/s to km/h
- Solve proportion problems using the unitary method

<https://www.bbc.co.uk/bitesize/guides/zqd6srd/revision/3>

What you need to know:

Best Buys

Boxes of tissues come in 3 sizes:

- A) 24 Tissues = £7.99
- B) 20 Tissues = £7.33
- C) 15 Tissues = £5.65

Which box is the best value for money?

Step 1 – Find the price per tissue for each box

$$\text{Box A} = £7.99 \div 24 = £0.333 \text{ or } 33.3\text{p/tissue}$$

$$\text{Box B} = £7.33 \div 20 = £0.367 \text{ or } 36.7\text{p/tissue}$$

$$\text{Box C} = £5.65 \div 15 = £0.377 \text{ or } 37.7\text{p/tissue}$$

Step 2 – Identify which box is cheapest per tissue

The best value for money is Box A as it is the cheapest per tissue.

Indirect Proportion

It takes 7 people 10 days to paint a house. How many days would it take 5 people?

Check: does my answer make sense? Yes, it will take longer to paint the house when we have fewer people, this is an example of indirect proportion.

Step 1 – Find the time taken for 1 person

$$7 \times 10 = 70 \text{ days}$$

Step 2 – Divide this by the new number of people

$$70 \div 5 = 14 \text{ days}$$

Questions like these can typically be solved by first finding the amount per unit (e.g. weight per cm, price per tissue). This is called the 'unitary method'

Growth and Decay

Mo invests £300 at a compound interest rate of 3% per annum. How much money is in his account after 4 years?

Step 1 – Calculate the interest rate as a decimal multiplier = 1.03

Step 2 – Substitute values into the formula for compound interest = £300 x 1.03⁴ = £337.65

If the value was decreasing, our multiplier would be <1

$$\text{Final Amount} = \text{Starting Amount} \times (\text{Decimal Multiplier})^n$$

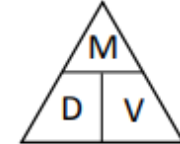
Compound Measures

Don't forget your formula triangles.

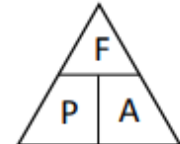
Speed:



Density:



Pressure:



Copper has a density of 8.92g/cm³. Silver has a density of 10.49g/cm³. 20cm³ of copper and 5cm³ of silver are mixed to form a new metal.

a) What is the density of the new metal?

Step 1 – Calculate the mass of each metal Mass = Density x Volume

$$\text{Copper} = 8.92 \times 20 = 178.4\text{g}$$

$$\text{Silver} = 10.49 \times 5 = 52.45\text{g}$$

Step 2 – Add the masses together 178.4 + 52.45 = 230.85g

Step 3 – Use the formula for density using your new mass and volume Density = M ÷ V = 230.85 ÷ 25 = 9.234g/cm³

b) Convert your answer into kg/m³

$$\text{g} \rightarrow \text{kg} = \div 1000$$

$$\text{cm}^3 \rightarrow \text{m}^3 = \times 1,000,000$$

Overall, we multiply by 1000

$$= 9.234 \text{ kg/m}^3$$

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

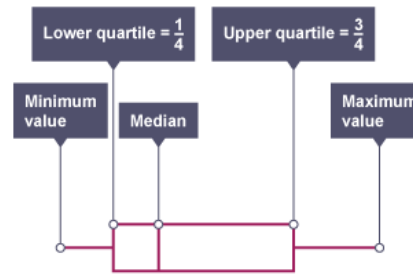
- Only a selection of opinions.
- Selection method could cause bias.

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



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.

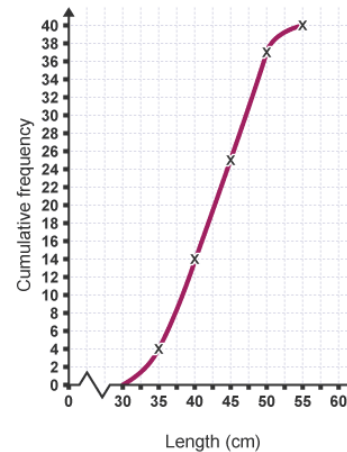
Length (cm)	Frequency	Cumulative frequency
$30 < l \leq 35$	4	4
$35 < l \leq 40$	10	$14 (4 + 10 = 14)$
$40 < l \leq 45$	11	$25 (14 + 11 = 25)$
$45 < l \leq 50$	12	$37 (25 + 12 = 37)$
$50 < l \leq 55$	3	$40 (37 + 3 = 40)$

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.

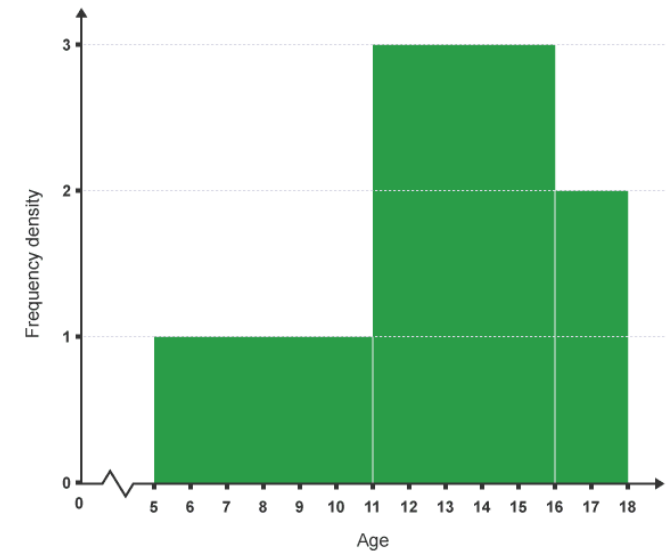


Histograms

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.



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 $\frac{3}{4}$.
8	Lower quartile	The number that is the middle of the lower half of the data set, at $\frac{1}{4}$.
9	Histogram	A bar chart where the area (not the height) of the bar represents the frequency.
10	Direct Proportion	Two quantities increase at the same rate
11	Inverse Proportion	As one quantity increases, the other decreases, the other decreases at the same rate.
12	Best Value	The item that is the cheapest per unit.
13	Compound measurement	A measure made up of two or more measurements (e.g. speed, pressure, density)

Notes:

Quiz QR Code



Quiz Link

[Link](#)

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.

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:

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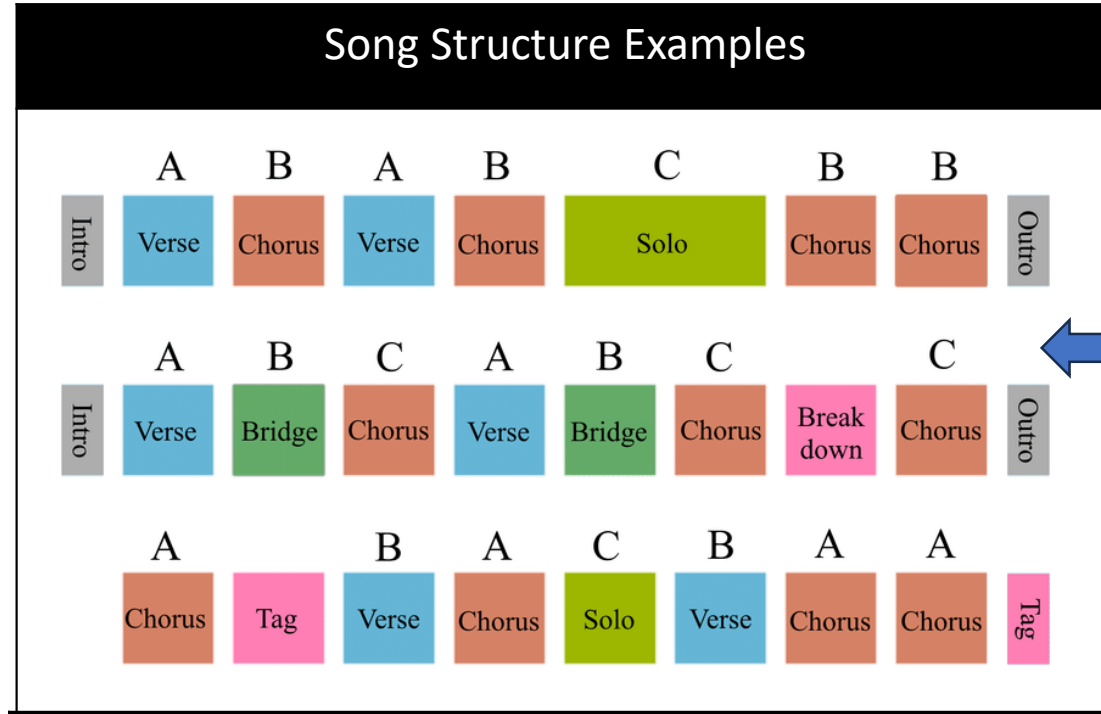
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Composition

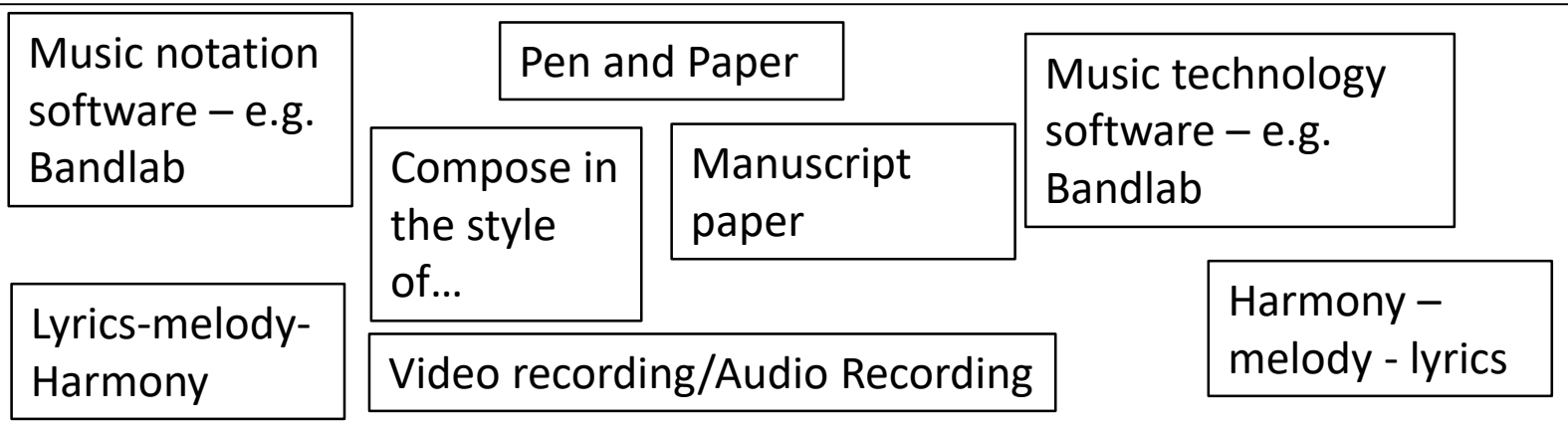
Consider the following elements used in musical analysis and performance to help compose a piece of music.

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.



Examples of some common song structures in popular music.

Different Ways to Compose/Record

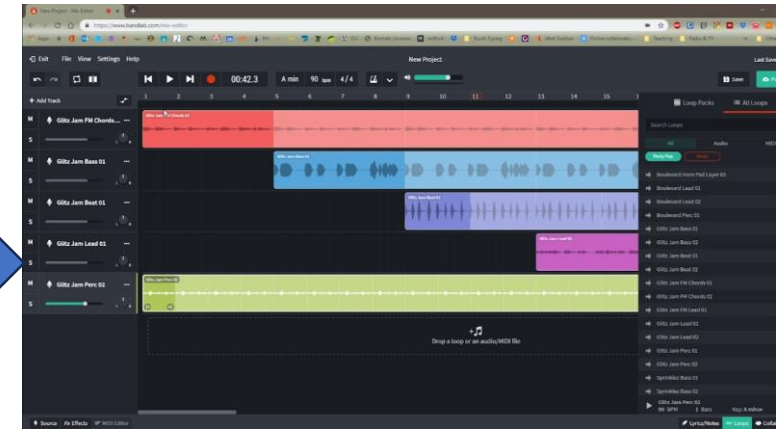


Music Technology

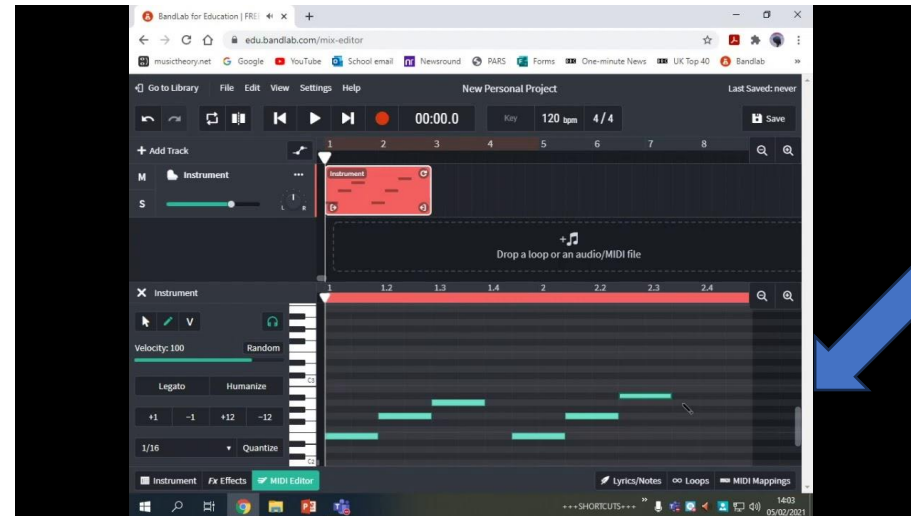
1. A DAW or Digital Audio Workstation is a piece of computer software used to create, compose and record music.
2. Loops are prerecorded short pieces of music that can be put together to create a larger piece of music.
3. You can create a rock song by doing the following:
4. Add loops together for 'rock 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.



Access automation

Play/pause/stop the music

Change the automation

Select different instruments/loops

Click on different loops to hear them

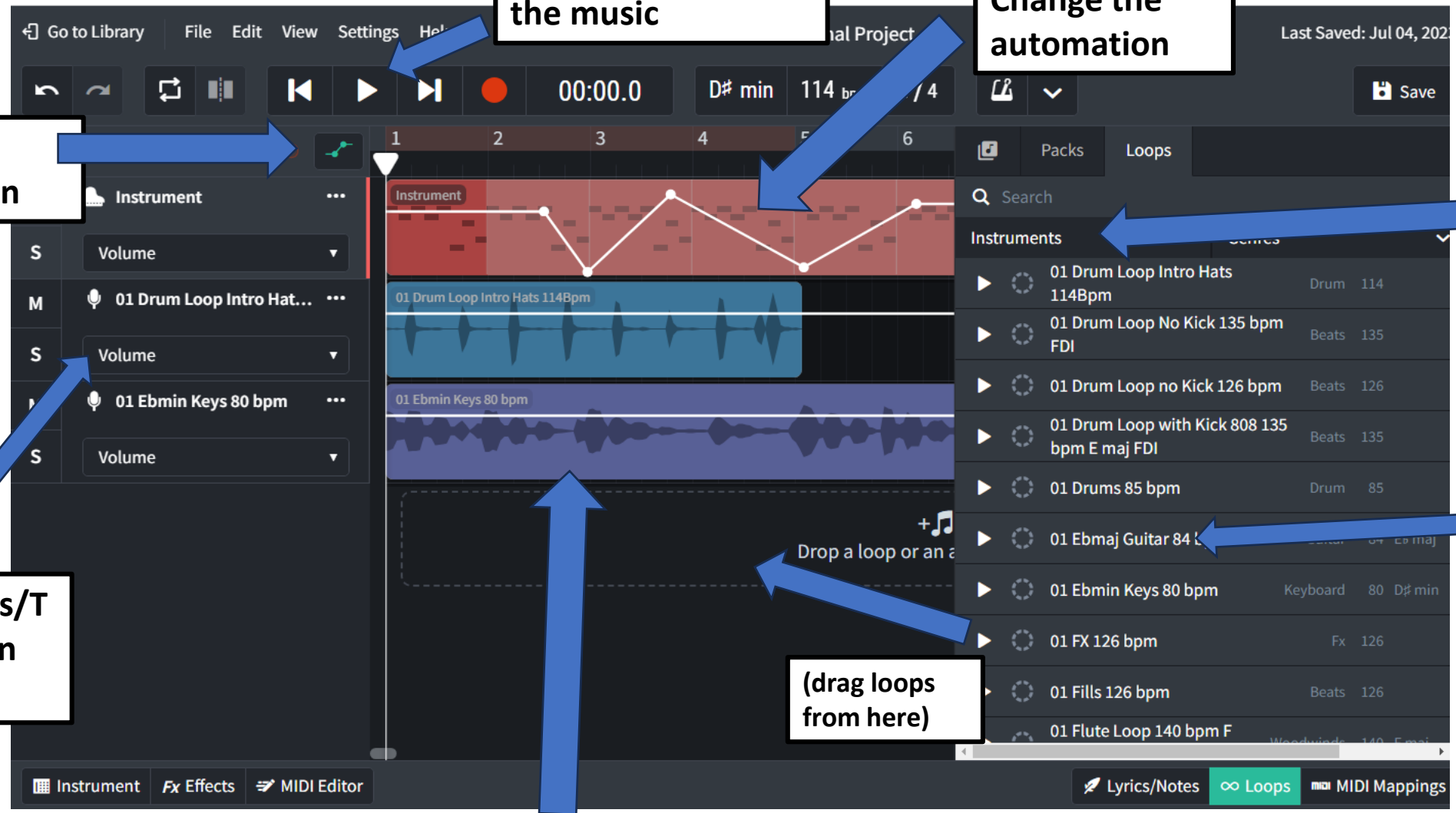
Instruments/T racks shown here

(drag loops from here)

Change to MIDI editor for sequencing

DRAG LOOPS HERE TO HERE CREATE A SONG

Loop Library



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](#)

Throwing events




Discuss:

Grip and Hold	Preparation	Movement – Transfer of Body Weight	Delivery & Release
 <ul style="list-style-type: none"> Spreads the fingers comfortably across the discus Rests the discus across finger pads Does not grip the discus 	 <ul style="list-style-type: none"> Stands side-on, with feet just over shoulder width apart Toes of left foot in line with heel of right foot Hips are tucked underneath the body and not push out behind Swings discus back in preparation for the throw 	 <ul style="list-style-type: none"> Keeps the hand on top of the discus. Keeps the arm 'long and relaxed' throughout the throw Pulls the arm through fast and last 	 <ul style="list-style-type: none"> Leads with the thumb Releases off the index finger

Shot Put:

Stance – Power Position (Chin, Knee, Toe)	Movement – Transfer of Body Weight	Delivery & Release
 <ul style="list-style-type: none"> Demonstrates a Chin, Knee, Toe (Power Position) Back is to the direction of the throw Shot put placed under the chin and against the neck Elbow is kept high 	 <ul style="list-style-type: none"> Keeps the throwing elbow high throughout the movement Pushes off the back leg Transfer body weight from the right leg to the left leg Moves from 'Low to High' 	 <ul style="list-style-type: none"> Keeps the left arm high in the delivery phase Pushes the right arm long and high Extends at the elbow, then wrist Flicks with the fingers to finish

Javelin:

Grip & Hold	Preparation – Stance	Movement & Delivery – Transfer of Body Weight
 <ul style="list-style-type: none"> Grips the Javelin at the rim of the binding cord with thumb and either first or second finger Holds Javelin back with extended arm and palm facing upwards The Javelin is close to parallel with the elbow slightly flexed 	 <ul style="list-style-type: none"> Stands side on with feet shoulder width apart, left foot in front and pointing in the direction of the throw The back foot is facing towards 1 o'clock on a clock face Weight on the back leg (with knee slightly bent) when preparing to throw 	 <ul style="list-style-type: none"> Rocks back onto the back leg and then moves forwards to start the throw Legs move before arms Extends the back leg at the knee and ankle to drive the right hip forwards Elbow remains above the shoulder when throwing Keeps shoulder and arm back until legs and hips have worked Keeps a tall body position Releases the javelin fast at roughly a 45° angle

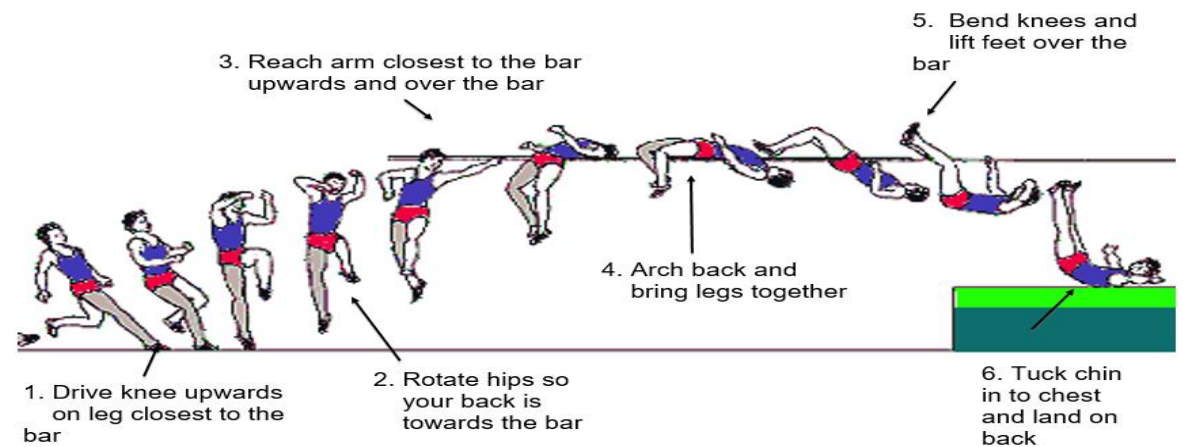
Jumping events

Long Jump

Run up	Take off	Flight	Landing
<ul style="list-style-type: none"> Has performer marked out run up using an odd number of steps? Is performer going fast enough during run up? 	<ul style="list-style-type: none"> Is performer taking off with one foot on the take-off board? Is performer taking off at a 45° angle? 	<ul style="list-style-type: none"> Does performer use arms for elevation and power? Does performer bring legs forward for extra momentum? 	<ul style="list-style-type: none"> Does performer land two footed in sand? Does performer have their head and arms forward on landing?



High Jump- Fosbury Flop



1. Drive knee upwards on leg closest to the bar
2. Rotate hips so your back is towards the bar
3. Reach arm closest to the bar upwards and over the bar
4. Arch back and bring legs together
5. Bend knees and lift feet over the bar
6. Tuck chin in to chest and land on back

Physical Education (Knowledge Goals – Athletics)

Autumn Term: Tier 3 Vocabulary

	Key word/ Key term	Definition
1	Sprinting	To run as fast as you can over a short distance. The aim is to finish in the quickest time.
2	Shot Put	A sports competition in which a heavy metal ball is thrown from the shoulder as far as possible.
3	Discus	A heavy plate-shaped object that is thrown as part of a sporting event.
4	Javelin	A long stick with a pointed end that is thrown as part of a sporting event.
5	High Jump	A sport which competitors try to jump over a bar support on two poles. The height of the bar is gradually increased.
6	Track event	A sports event in which athletes compete with each other by running a race on a specially prepared circular path.
7	Field event	A sports event in which athletes compete one after the other in a jump or throwing event.
8	Cardiovascular endurance	The ability of the heart, lungs and blood vessels to get oxygen to the muscles and the bodies ability to use oxygen.
9	Aerobic exercise	Using oxygen to produce energy during low-intensity, long-duration exercise.
10	Anaerobic exercise	Not using oxygen to produce energy during high-intensity, short duration exercise.

Notes:

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Nuclear Family



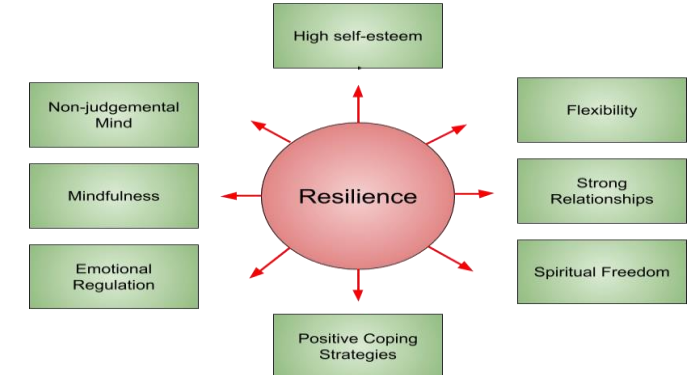
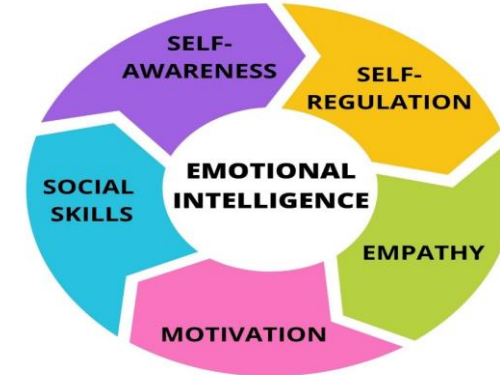
Blended family



Extended family



Same sex family



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](#)

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

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.

Shelter

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

“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**.

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](#)

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

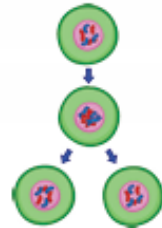
Produces two daughter cells.

Daughter cells are genetically identical.

The cell divides once.

The chromosome number of the daughter cells is the same as the parent cells. In humans, this is 46 chromosomes.

Used for growth and repair, and asexual reproduction.

**Meiosis**

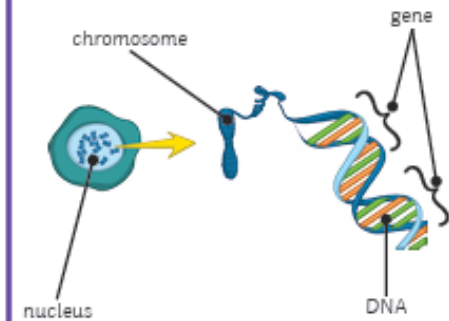
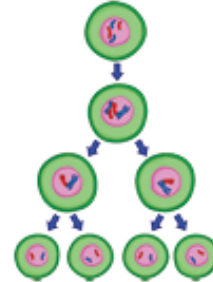
Produces four daughter cells.

Daughter cells are not genetically identical.

The cell divides twice.

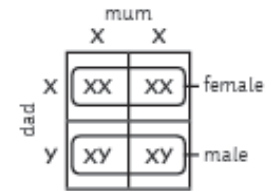
The chromosome number is reduced by half. In humans, this is 23 chromosomes.

Produces gametes for sexual reproduction.

**Sex Determination**

Females carry two X chromosomes.

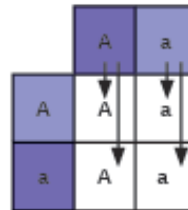
Males carry one X and one Y chromosome.

**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.



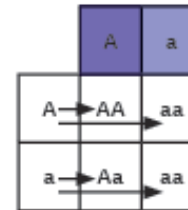
Step 3: Put the alleles from the first parent into the two boxes beneath them.



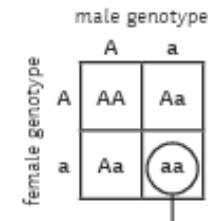
Step 2: Put the two alleles from the second parent into the boxes on the left. This parent is also a heterozygote.



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

**Probability**

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

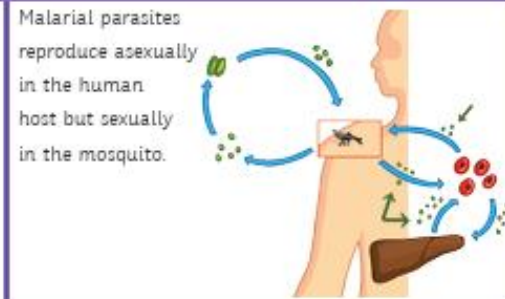


One of these four has the genotype aa, that's $\frac{1}{4}$, 25% or 0.25.

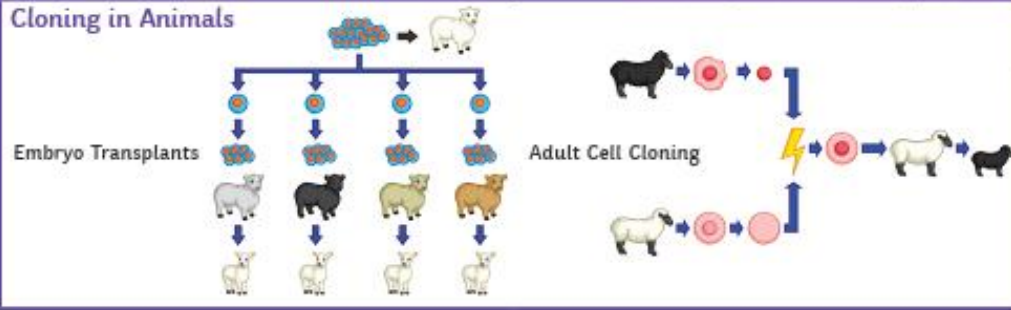
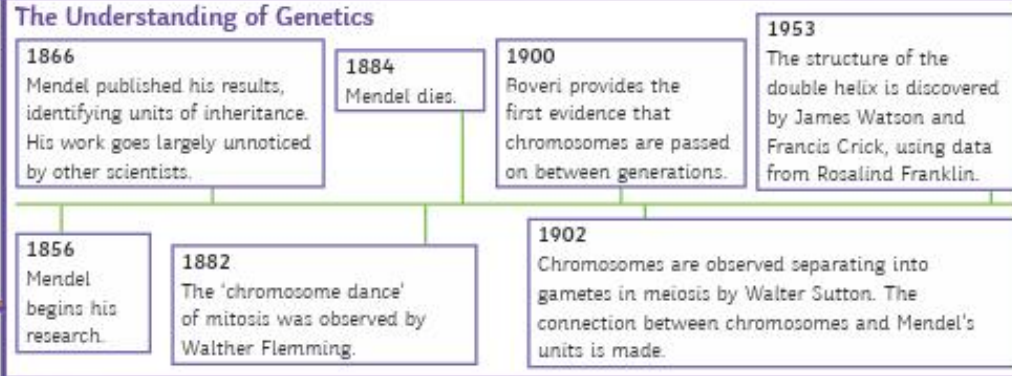
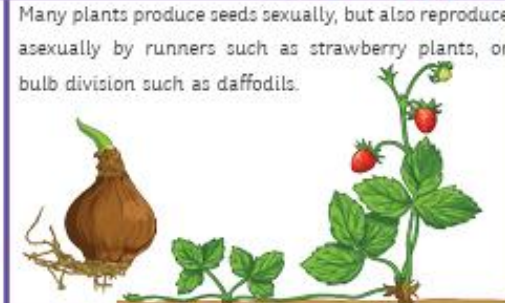
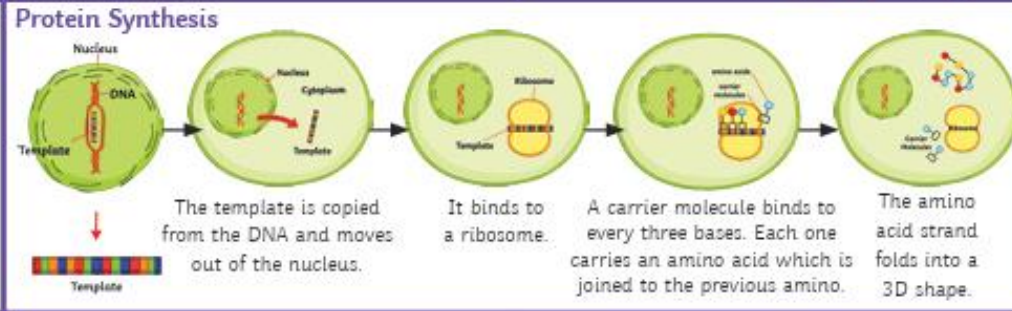
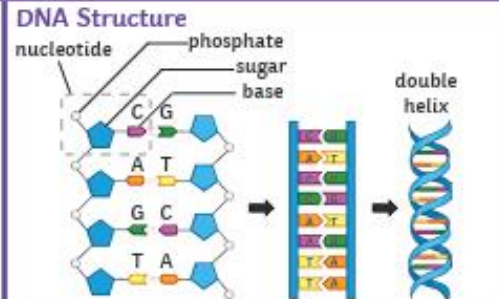
The recessive phenotype has a ratio of 1:3 because only one combination will show the phenotype, while the other three will not.

- 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.



- 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.



- 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.

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 may 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

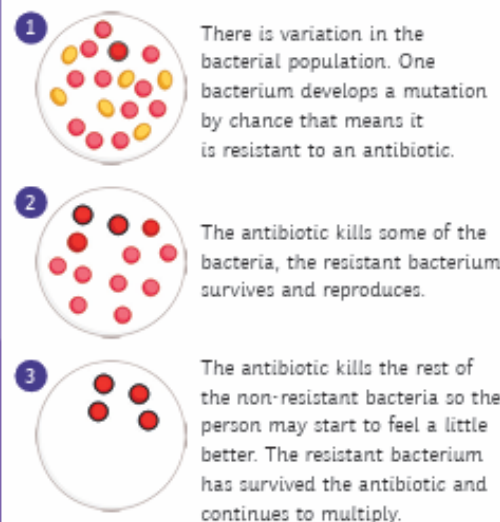
All species of living things have evolved from simple life forms by natural selection.

- 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.



Fossils

Fossils could be:

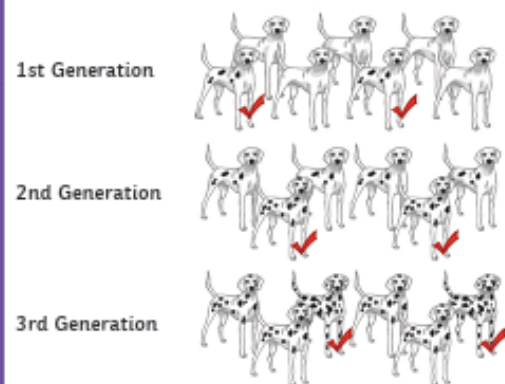
- the actual remains of an organism that has not decayed;
- mineralised forms of the harder parts of an organism, such as bones;
- traces of organisms such as footprints or burrows.

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

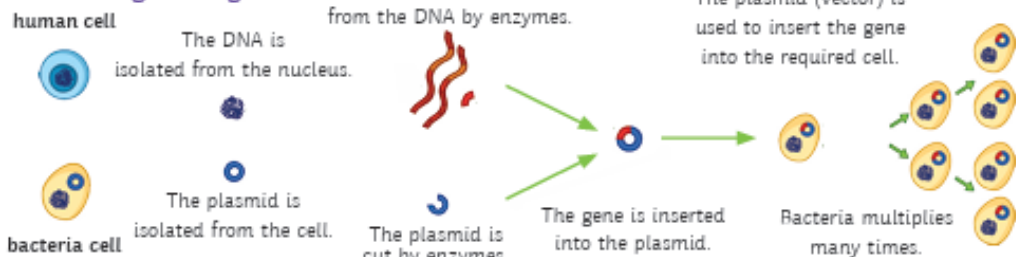
Fossils help us understand how much or how little organisms have changed as life developed on earth.

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	archaeobacteria	protista	fungi	plantae	animilia

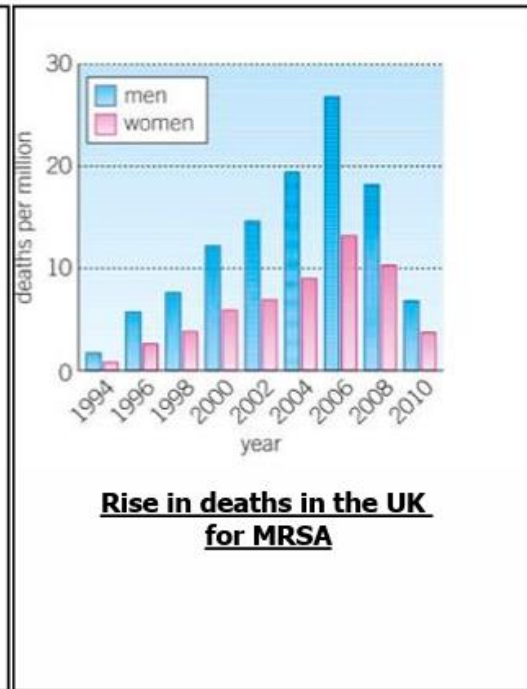
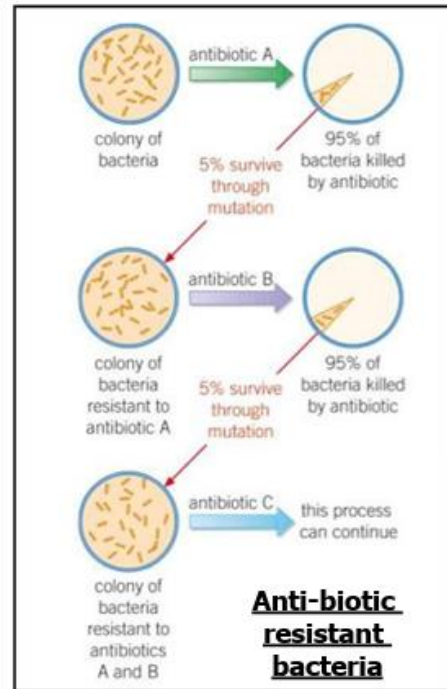
Section 1: Evidence for evolution	
Fossil	The preserved remains of an organism from many thousands of years ago. Formed by either gradual replacement by minerals, casts/impressions or preservation in places where there is no decay like amber
Resistance bacteria	Bacteria can evolve and become antibiotic 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. <i>Homo sapiens</i>
Evolutionary trees	Show common ancestors and relationships between species

Fossil record of the horse

whole animal	forefeet	Description
<p>modern horse (<i>Equus</i>) from 2 million years ago 1.6m</p>		The modern horse is a fast runner on hard ground with only one toe forming the hoof.
<p><i>pliohippus</i> from 5 million years ago 1.0m</p>		With a single toe forming the hoof, this looks more like a modern horse.
<p><i>merychippus</i> from 25 million years ago 1.0m</p>		Bigger again, walking mainly on one enlarged toe for speed.
<p><i>mesohippus</i> from 37 million years ago 0.6m</p>		Bigger, only three toes on the ground for moving fast on drier ground.
<p><i>hyracotherium</i> from 55 million years ago 0.4m</p>		Small, swamp-dwelling with four well-spread toes for walking on soft ground.

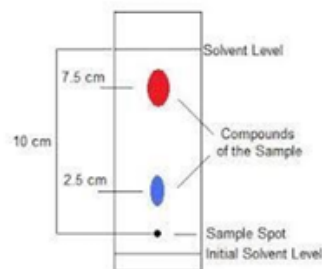


Chemistry Knowledge Organiser

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
$Rf = \frac{B}{A}$	<p><i>Rf = Retention Factor (no units)</i></p> <p><i>B = Distance travelled by substance (cm)</i></p> <p><i>A = Distance travelled by solvent (cm)</i></p>

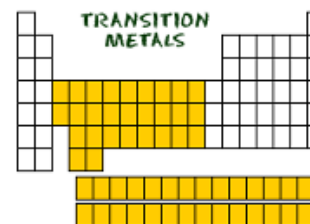
Melting Point and Boiling point

- 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



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 ⁻ , Br ⁻ , I ⁻)	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 ⁻ – White Br ⁻ – Cream I ⁻ – 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.	$Al^{3+} + 3OH^- \rightarrow Al(OH)_3$

A training programme should include all of the following elements.

- Suitable warm up and cool down
- Activities/main content of programme
- Duration of plan
- Duration of sessions
- Equipment and facilities
- Coaching points
- Adaption of programme based on each session and mid-term testing



- Factors to be considered when planning an exercise programme:**
- Facilities/equipment
 - Safety/risk assessments
 - Aims/goals/objectives
 - Current fitness levels/injuries
 - Organisation
 - Environment
 - Skills to be improved



A rugby player set a target for their training programme to improve their Illinois Agility Test score by 0.5 seconds.

At the end of the programme the rugby player had improved their Illinois Agility Test score by 1 second.

The rugby player has achieved their goal and may now set a new goal covering a different component of fitness and fitness test



TOPIC AREA 3

SPORT SCIENCE R181 PART 2

The principles of training should be applied to a training programme in order to ensure improvement takes place



TOPIC AREA 4



3 possible outcomes following a training programme ...

- SMART goal has been partially achieved = **Repeat** the fitness programme
- SMART goal has not been achieved = **Adapt** the types of training or FITT principle
- SMART goal has been achieved = **Set a new goal** focusing on an area of weakness

Tier 3 Vocabulary

Key word		Definition
1	Objective measures	Facts that provide figures/ numbers which allow a performer to monitor improvement.
2	Adaptability	Flexibility to adapt a programme if, for any reason, the session cannot be followed precisely.
3	Specificity	Making training specific to the movements skills and muscles that are used in the activity.
4	Progression	Gradually making training harder as it becomes too easy.
5	Overload	Working harder than normal.
6	Reversibility	“Use it or lose it”. If you stop training, you will lose fitness.
7	FITT	Principles of overload, frequency, intensity, time and type.
8	Continuous training	Any activity or exercise that can be continuously repeated without suffering undue fatigue.
9	Interval training	Any training that involves periods of work and rest.
10	Circuit training	A series of exercises performed at work stations with periods of work and rests.
11	Fartlek training	“Speed Play” which generally involves running, combining continuous and interval training with varying speed and intensity.
12	Plyometric training	Repeated exercises such as bounding, hopping or jumping over hurdles which are designed to create fast, powerful movements.

Notes:

Quiz QR Code



Quiz Link

[Link](#)

definition	synonyms
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sentence	antonyms

Synonyms are words with the same or similar meaning:

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

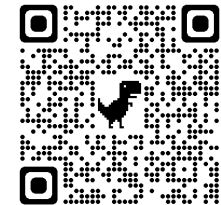
Antonyms are words with opposite meanings:

- 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

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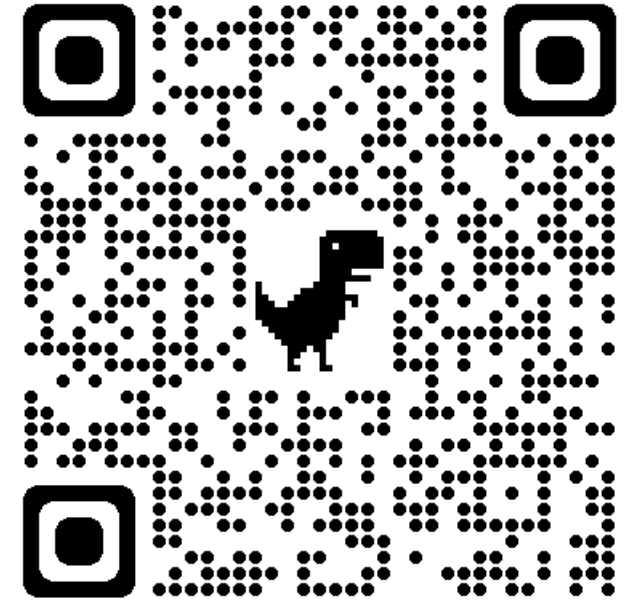
Have a go at creating a Frayer Model for each of the 6 tier 2 words from this term (blank templates are at the back of the booklet for you to complete this activity).

Frayer Model: Narrate

definition	synonyms
sentence	antonyms

narrate

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



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