

Knowledge Organiser

YEAR

9



“ There is always hope
for a better day . ”

D R . A L E X G E O R G E

Youth Mental Health Ambassador

THE ENGAGED **MIND STAYS SHARP.**
BE ENGAGED IN THE HERE AND NOW.

Knowledge Organisers at Redmoor Academy

WHY?

Why do we have knowledge organisers?

Your knowledge organisers help you to be successful in many ways. Firstly, they make clear the key elements needed in a topic to have an excellent understanding of it. If you know these elements, your teacher will help you to understand them.

WHAT?

What are my teachers' expectations of me?

In year 7 and 8 your teachers will give you homework that means you will be spending 20 minutes a week learning information from your knowledge organiser for each subject. In year 9 this will be 30-40 minutes. Teachers will test you once a week to make sure that you are completing the homework and remembering your knowledge. Your knowledge organiser exercise book is where you will complete your practising. Each time you revise and practise, you should put the subject as the title and the date. Rule off when you have completed your revising for that subject. Teachers and form tutors will be regularly checking that you are revising.

HOW?

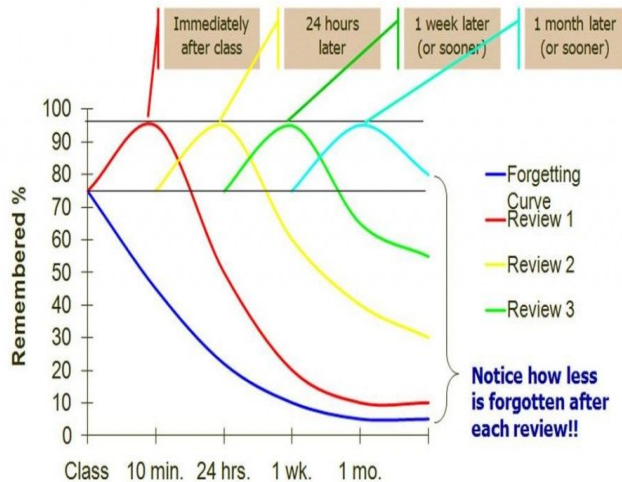
How will my teachers use them?

Each subject will set homework once a week that will help you to learn your knowledge organiser. They will also test you once a week on certain parts to see how well you have remembered it. Research tells us that this practising is a really good way of helping you make sure that the knowledge stays in your memory. Over time you will build on this knowledge to make sure that you know everything you need to for your subject. Sometimes you may have high stakes quizzes, where teachers will set a certain score that you have to reach to be successful.

How will they help me revise?

When it comes to GCSEs, you have lots of information to remember. Your knowledge organisers will gradually build up this knowledge over 5 years to help support you in year 11 so that when you revise, you are just recalling knowledge that you have already stored. Also, you will have practised lots of revision techniques whilst revising your knowledge organisers over the past 5 years, which will help prepare you for the final exams.

How we learn at Redmoor



Why reviewing your learning is so important

As soon as we are told a new piece of information, most of that information is 'lost' and forgotten. Hermann Ebbinghaus found that repeating information helps us remember more of it. So we need to be reviewing and going over what we learn in order for us to remember and be able to use the information after a period of time has passed.

This resource summarises some proven strategies that you can use to review your knowledge.

Common methods of revision that are the least effective:

- Highlighting key points
- Re-reading
- Summarising texts



Retrieval practice

Testing what you know is a powerful tool in revision; the effort to remember something really strengthens your memory. Apps such as Memrise and Quizlet allow you to use or create your own quizzes based on topics. Create them, test yourself or get someone to test you. It works!

Learn more about retrieval practice here: [Link to the Learning Scientists](#)

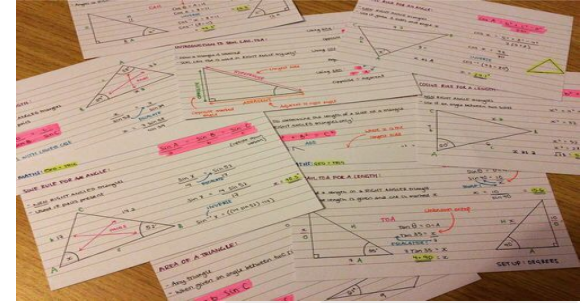
How we learn at Redmoor

Flash cards

Simply create questions on one side, answers on the other. Colour code the cards for specific topics. Post it notes can be useful for keywords and timelines.

Once you have created your flash cards, you need to think about how you will use them effectively. There is a link below to Leitner system of using flashcards:

[YouTube: The Leitner Method](#)



Dual coding



Dual coding is the process of combining verbal materials with visual materials.

Simply take information that they are trying to learn, and draw visuals to go with it

Learn more about dual coding here:

[Link To The Learning Scientists](#)

Try to come up with different ways to represent the information. For example: a timeline, a cartoon strip or a diagram of parts that work together.

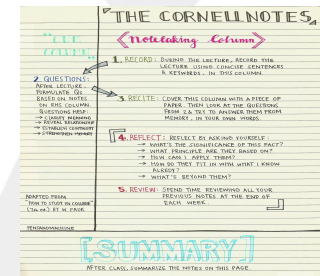
Cornell Notes

This method can be used in your revision books as a

great method to get you to 'think' about your revision.

Simply split your page into 3 sections as shown on the diagram below:

- Note Taking
- Key words / concepts
- Summary



THINK HARD. WORK HARD. GO FAR

How we learn at Redmoor

Spacing and interleaving

Don't revise your all topics in one go (cramming). Instead, you should revise 'chunks' of a topic for small amounts of time (15-30 minutes) and then move onto another 'chunk' from a different Topic.

Eg. topic 1 cells, topic 2 digestive system

This will improve your memory!

Massed presentation



Spaced and interleaved presentation



Mind Maps

Mind mapping is simply a diagram used to visually represent or outline information.

It is a powerful graphic technique you can use to translate what's in your **mind** into a visual picture.

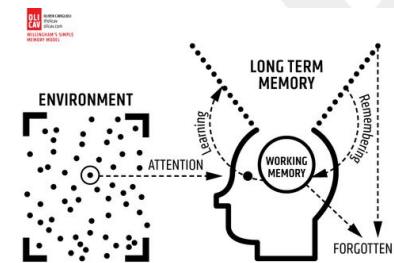
Mind maps help with memorisation of jey knowledge as it helps to organise information and begin to make links and connections to different pieces of information.

The use of visual images helps your brain to memorise the information with simple words next to them - links to dual coding!



Useful links:

- The learning scientists: <https://www.learningscientists.org/>
- Memrise: <https://www.memrise.com/>
- Quizlet: <https://quizlet.com/en-gb>
- Seneca: <https://www.senecalearning.com/>



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Equipment

all students must have...



Mobile phones are not to be used in lessons without staff permission
No photos or videos to be taken without permission
No school related images or videos to be uploaded on to social media

Black or blue pen
Pencils
Ruler - 30cm
Protractor
Compass
Rubber
Pencil Sharpener
Purple pen
Scientific calculator
Coloured crayons
Student Organiser
Knowledge Organiser
Locker Key

English:

Blood Brothers

Characters
Edward Lyons is raised by the Lyons. He remains down-to-earth despite his upbringing. He attends private schools and university.
Mickey Johnstone is the son kept by Mrs Johnstone. He has a working-class upbringing. He takes a number of knocks in life and, as the play goes on, becomes cynical and mean.
Mrs Johnstone is the biological mother of Mickey, Edward and Sammy. She is deeply superstitious.
Mrs Lyons is the opposite of Mrs Johnstone - she's snobbish and arrogant. She adopts Edward and brings him up as a wealthy boy.
The Narrator: The Narrator takes on a number of roles throughout the play. Sometimes he plays parts whilst at other times he stands back and comments on events as they unfold.
Linda is a tomboy who enjoys playing with Mickey and Edward, but soon becomes an object for their desire.

Key Context (AO3)
Marilyn Monroe was an extremely glamorous actress in the 1950s. She was presented in the media as having the 'perfect life' but the reality was very different.
Families were expected to have a 'nuclear' structure - a mother, a father and their children. Single-parent families like Mrs Johnstone's were frowned upon by many.
Social Class: At this time there was a large financial gap between the working and middle class in Britain. There was also a class divide in education; whether you went to a public or private school often decided what job you would get.
Margaret Thatcher was a Conservative politician who was elected Prime Minister in 1979, four years before Blood Brothers was first performed. Thatcher divided opinion: some people admired her strength and tenacity while others felt she was uncaring.
Willy Russell (Ao3)
Russell is a dramatist from Liverpool. Russell was a child from a low-income family with a father who struggled with drug addiction. He left school at the age of 15 without any academic qualifications and became a hairdresser.

Theme: Social Divide
1. "I didn't sort anythin' out Linda. Not a job, not a house, nothin'. It used to be just sweets an' ciggies he gave me, because I had none. Now it's a job and a house. I'm not stupid, Linda. You sorted it out. You an' Councilor Eddie Lyons." Mickey 2. "You! Why didn't you give me away? I could have been...I could have been him!" Mickey 3. "And do we blame superstition for what came to pass? Or could it be what we, the English, have come to know as class?" The Narrator
Theme: Superstition and Fate
1. "They say...they say that if either twin learns that he once was a pair that they shall both immediately die." Mrs Lyons 2. "But y'know the devil's got your number, Y'know he's gonna find y." The Narrator 3. "And who'd dare tell the lambs in Spring / What fate the later seasons bring." The Narrator
Theme: Family and Friendship
1. "Do you wanna be my blood brother Eddie?" Mickey, Act 1 2. "I wish I could still believe all that blood brothers stuff. But I can't." Mickey, Act 2 3. "Micky, Don't shoot Eddie. He's your brother. You had a twin brother." Mrs Lyons

Key Vocabulary	Student friendly definition	Use it!
Thatcherism	The policies of Prime Minister Margaret Thatcher are given this name.	<i>Thatcherism</i> changed many aspects of life for people in Liverpool.
Prejudice	An unfair opinion which is formed beforehand and without knowledge.	Mrs Lyons has a <i>prejudice</i> against lower class women.
Social class	A division in society based on social and economic position.	Our power in society is influenced by our <i>social class</i> .
Superstition	A belief not based on scientific reason or logic.	Knocking on wood is a <i>superstition</i> .
Privilege	An advantage that one person or a group of people has.	Your ability to succeed in life may depend on your level of <i>privilege</i> .
Inequality	Where some people have more opportunities than others in society.	There is a lot of <i>inequality</i> in the world.
Envy	When you long for something someone else has.	I was <i>envious</i> that I didn't have his car.

Dramatic Devices (Ao2)
Prologue - The opening section of the play that establishes important background information.
Stage Directions - Instructions in a script that indicate how something should be performed and occasionally provide helpful descriptions.
Monologue - a long speech delivered by one character.
Foreshadowing - this is used to give hints or indications about what is to come later in the story.

Dramatic Devices (AO2)	
Dramatic Irony: the audience know what the characters don't.	The audience is aware throughout the play that Mickey and Edward are twins, when this is unknown to the characters themselves.
The 'Fourth Wall': An invisible, imagined wall separating the characters and audience.	The Narrator and Mrs Johnstone break the 'fourth wall' when they speak to the audience directly at points in the play.
Dramatic Tension: This keeps an audience hooked and feeling involved.	The events leading up to the final scene, help to raise the dramatic tension for the audience. We want to find out how the tension is resolved.

The Features of Tragedy (Ao2)
A tragedy is a type of serious play that deals with sorrowful or terrible events encountered or caused by a heroic individual. Tragedies originated in Ancient Greece but became particularly popular during the Shakespearean era.
Tragic hero: a main character is cursed by fate and in possession of a fatal flaw (hamartia). Both Mickey and Edward have the characteristics of tragic heroes.
Hamartia: this is the fatal flaw of the tragic hero, the thing leading to their downfall.
Catharsis: the release of the audience's emotions through empathy (understanding/sharing feelings) with the characters.
Internal conflict: the struggles characters face over their flaws. For example, Mrs Johnstone's struggle after giving her son away.

Science - Conservation and Dissipation of Energy

The Equations

Keyword	Definition
Energy System	An object or group of objects
Work	A scientific way of saying that energy has been transferred.
Transferred	When something is moved from one place to another.
Dissipated	A term used when energy is wasted
Internal Energy	The total kinetic and potential energy of the particles in an object.
Useful Energy	Energy transferred to where it is wanted in the way it is wanted.
Wasted Energy	Energy that is not usefully transferred.
Closed System	A system which no energy transfer take place out of or into the energy stores of the system

$$\text{change of gravitational potential energy store, } \Delta E_p \text{ (joules, J)} = \text{mass, } m \text{ (kilograms, kg)} \times \text{gravitational field strength, } g \text{ (newtons per kilogram, N/kg)} \times \text{change of height, } \Delta h \text{ (metres, m)}$$

$$\text{work done, } W \text{ (joules, J)} = \text{force applied, } F \text{ (newtons, N)} \times \text{distance moved along the line of action of the force, } s \text{ (metres, m)}$$

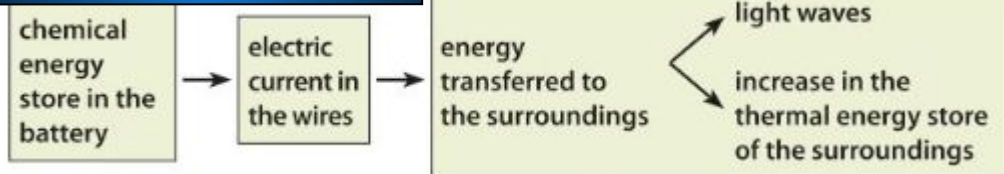
$$\text{kinetic energy, } E_k \text{ (joules, J)} = \frac{1}{2} \times \text{mass, } m \text{ (kilograms, kg)} \times \text{speed}^2, v^2 \text{ (metres per second, m/s)}^2$$

$$\text{elastic potential energy, } E_e \text{ (joules, J)} = \frac{1}{2} \times \text{spring constant, } k \text{ (newtons per metre, N/m)} \times \text{extension}^2, e^2 \text{ (metres, m)}^2$$

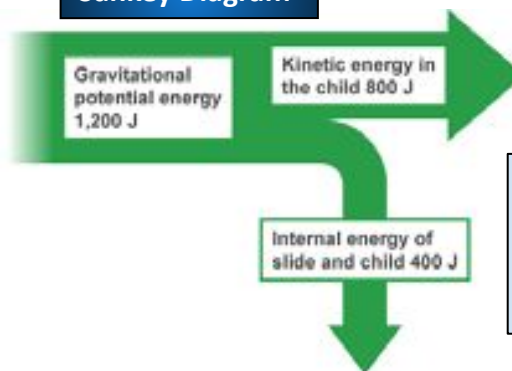
$$\text{efficiency} = \frac{\text{useful output energy transferred by the device (J)}}{\text{total input energy supplied to the device (J)}}$$

$$\text{power, } P \text{ (watts, W)} = \frac{\text{energy transferred to appliance, } E \text{ (joules, J)}}{\text{time take for energy to be transferred, } t \text{ (seconds, s)}}$$

Energy Transfers in a Torch



Sankey Diagram



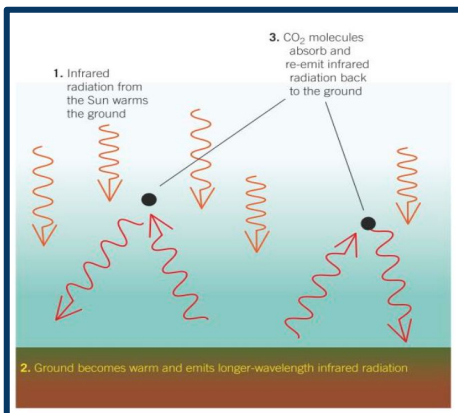
Explain the energy transfers that take place when a ball is bounced on the ground.

Energy cannot be created or destroyed it can only be transferred between stores.

Energy store	Examples
Magnetic	Fridge magnets, compasses, maglev trains.
Thermal	Human bodies, hot coffees, stoves or hobs.
Chemical	Foods, muscles, electrical cells
Gravitational Potential	Aeroplanes, kites, mugs on a table.
Elastic potential	catapults, compressed springs, inflated balloons.
Kinetic	Runners, buses, comets
Electrostatic	Thunderclouds, Van De Graaff generators.

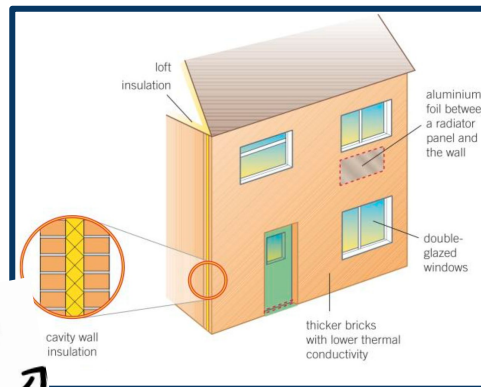
Science - Energy Transfer by Heating

Keyword	Definition
Black body radiation	The radiation emitted by a perfect black body (a body that absorbs all the radiation that hits it).
Conduction	Occurs in solid objects. When an object is heated energy is transferred to the particles. They vibrate and collide transferring energy.
Convection	Occurs in liquids and gases. Energy is transferred to the particles, the space between the particles increases so density decreases. Particles start to rise.
Infrared radiation	Electromagnetic waves between visible light and microwaves.
Specific heat capacity	The energy needed to raise the temperature of a 1kg substance by 1°C
Thermal conductivity	Property of a material that determines the energy transfer through it by conduction.



Reducing Energy Transfers

Infrared Radiation and Global Warming



Specific Heat Capacity Equation

$$\text{energy transferred, } \Delta E \text{ (joules, J)} = \text{mass, } m \text{ (kilograms, kg)} \times \text{specific heat capacity, } c \text{ (joule per kilogram per degree Celsius, J/kg } ^\circ\text{C)} \times \text{temperature change, } \Delta\theta \text{ (degree Celsius, } ^\circ\text{C)}$$

Radiation and Materials

Light, shiny surfaces emit less radiation than dark, matt surfaces.

Good absorber = Good emitter

Bad absorber = Bad emitter

Radiation and Surface temperature

All objects give out (emit) infrared radiation.

The higher the temperature of an object, the more infrared radiation it emits in a given time.

An object that has a constant temperature emits radiation across a continuous range of wavelengths.

Insulators

Good insulators need to be materials that have low thermal conductivity. Energy transfer will depend on:

1. Temperature difference across a material
2. The thickness of the material
3. The thermal conductivity of the material

Science - Energy Transfer by Heating Required Practicals

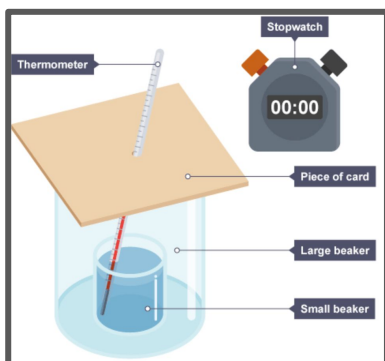
Specific Heat Capacity

Thermal Insulation

Aim: compare the effectiveness of different materials as thermal insulators

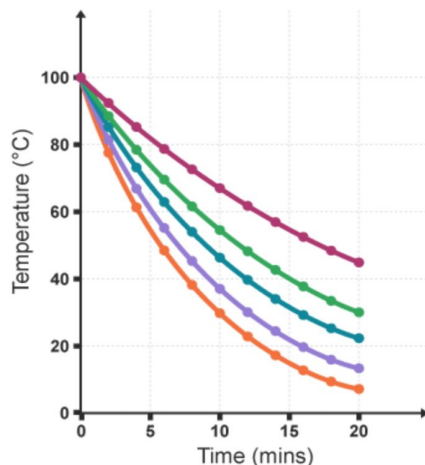
Method

1. Place a small beaker into a large beaker
2. Fill the small beaker with hot water from a kettle
3. Put a piece of cardboard over the beaker as a lid. The lid should have a hole for a thermometer
4. Place the thermometer into a smaller beaker through the hole
5. Record the temperature of the water in the small beaker and start the stopwatch
6. Record the temperature of the water every two minutes for 20 minutes
7. Repeat steps 1-6 each time packing the space between the two beakers with the chosen insulating material.
8. Plot a graph of temperature (y-axis) against time (x-axis)



Analysis

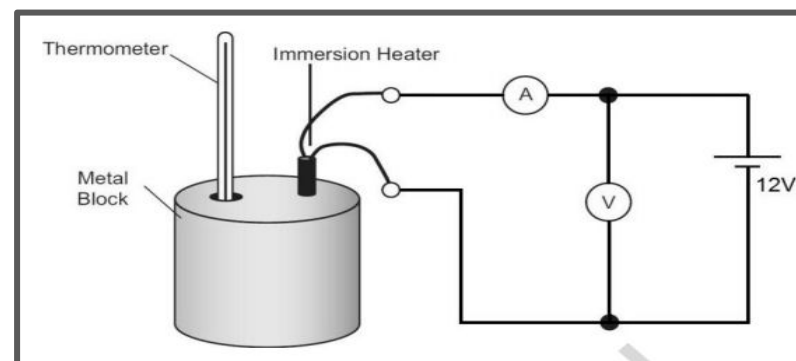
Describe what this graph shows. Compare the different materials and their effectiveness as thermal insulators.



Method

Aim: to measure the specific heat capacity of a sample of a material

1. Place the immersion heater into the central hole at the top of the block.
2. Place the thermometer into the smaller hole and put a couple of drops of oil into the hole to make sure the thermometer is surrounded by hot material.
3. Fully insulate the block by wrapping it loosely with cotton wool. This will reduce energy being transferred to the surroundings.
4. Record the temperature of the block
5. Connect the heater to the power supply and turn it off after ten minutes.
6. After ten minutes the temperature will still rise even though the heater has been turned off and then it will begin to cool.
7. Record the highest temperature that it reaches and calculate the temperature rise during the experiment.



Analysis

Ammeter reading (A)	Voltmeter reading (V)	Initial temperature (°C)	Final temperature (°C)
3.65	10.80	15	38

Use the data above and the following equation to calculate energy transferred to the metal block (hint: to convert time into seconds $\times 60$)
 Energy transferred (J) = potential difference (V) \times current (A) \times time (s)

CHALLENGE: Write a method for how you would investigate the effectiveness of different thicknesses of thermal insulators

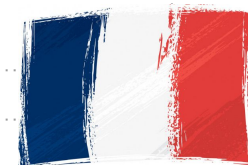
CHALLENGE: Calculate the specific heat capacity of the 1 kg metal block using your calculated energy transferred value. You will need to calculate the temperature change from the results table above.

French - Les Loisirs

Qu'est-ce que tu aimes regarder à la télé/au cinéma? What do you like to watch on TV/at the cinema?

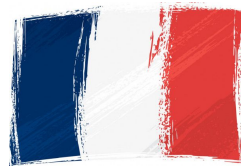
Opinion (1)	Verb(2)	Noun(3)	Noun(4)	Connective(5)	Quality Vocab(6)	Verb(7)	Adjective(8)
J'adore I love J'aime assez I quite like J'aime beaucoup I really like Je n'aime pas du tout I don't like at all Je déteste I hate Je préfère I prefer Je ne supporte pas I can't stand	regarder to watch / watching	les actualités the news les dessins animés (the) cartoons les feuilletons (the) soaps les jeux télévisés (the) game shows les publicités (the) adverts les séries (the) series les émissions de télé-réalité (the) reality TV shows les émissions de sport (the) sports shows les documentaires (the) documentaries la météo the weather forecast	les films de guerre (the) war films les films policiers (the) crime films les films d'action (the) action films les films de science fiction t(the) sci-fi films les films d'amour (the) love films les comédies romantiques (the) Rom-Coms les films d'horreur (the) horror films	parce que because car because puisque as	on me dit que people say that il faut admettre que I must admit that heureusement fortunately malheureusement unfortunately je dirais que I would say that c'est vrai que it's true that ce n'est pas vrai que it's not true that pour moi for me selon mes amis according to my friends j'estime que I reckon that	c'est it is ce n'est pas it's not ça peut être it can be	émouvant. moving. triste. sad. effrayant. scary. comique. funny. banal. dull. romantique. romantic. idiot. stupid. original. original. bizarre. weird. formidable. great.

Tu aimes quelle sorte de musique? What sort of music do you like?



Opinion (9)	Verb(10)	Noun(11)		Opinion (12)	Connective(12)	Reason (13)
J'adore I love J'aime assez I quite like J'aime beaucoup I really like Je ne supporte pas I can't stand	écouter to listen to/ listening to	de la musique rap (some) rap music de la musique RnB (some) RnB music de la musique pop (some) pop music de la musique rock (some) rock music de la musique classique (some) classical music des chansons françaises (some) French songs des chansons anglaises (some) English songs	et and mais but	mon chanteur préféré est... my favourite male singer is ma chanteuse préférée est... my favourite female singer is... mon groupe préféré est... my favourite group is...	car because parce que because puisque as	j'aime les mélodies. I like the tunes. j'aime les paroles. I like the lyrics. j'adore les chansons. I love the songs. il est génial. he is great. elle est fantastique. she is fantastic.

French - Les Loisirs



Qu'est-ce que tu fais? What do you do?

Time Phrase(14)	Verb(15)	PVS(16)	Noun(17)	Subordinate Clause(18)
Normalement, Normally,	je joue I play	au at (m) aux at (pl)	foot. football. jeux vidéos. video games.	avec mes ami(e)s. with my friends. avec mes copains. with my mates (m). avec mes copines. with my mates (f).
D'habitude, Usually,				avec ma famille. with my family. avec mon équipe. with my team.
Le weekend, At the weekend,	je fais I do	du some (m) de la some (f) de l' some (v)	vélo. cycling. natation. swimming. équitation. horse riding.	
Pendant la semaine, During the week,				chez moi. at my house chez mon ami(e). at my friend's house. chez mon père. at my dad's house. au centre sportif. at the leisure centre. en ville. in town. au collège. at school. au restaurant. at the restaurant. au parc. at the park. dans ma chambre in my room.
Quelquefois, Sometimes,	je regarde I watch	la the (f) un a (m)	télé. TV. match de foot. football match.	
De temps en temps, From time to time,	je vais I go	en to au to the (m)	ville town cinéma cinema	
	je mange I eat	du some (m) de la some (f) de l' some (v) des some (pl)	poulet. chicken. pizza. pizza. ananas. pineapple. frites. chips.	
	j'écoute I listen	de la some (f)	musique. music.	
	je retrouve I meet	mes my (pl)	amis. friends.	

Future Tense

Qu'est-ce que tu vas faire? What are you going to do?

Time Phrase (19)	Verb(20)	PVS (21)	Noun(22)
	je vais jouer I am going to play	au at (m)	rugby. rugby.
	je vais faire I am going to do	du some (m)	footing. jogging
Demain, Tomorrow,	je vais regarder I am going to watch	la the (f)	télé. TV.
Ce weekend, This weekend,	je vais aller I am going to go	à la to the (f)	bibliothèque. library.
La semaine prochaine, Next week,	je vais manger I am going to eat	des some (pl)	chips. crisps.
	je vais écouter I am going to listen	de la some (f)	musique. music.
	je vais retrouver I am going to meet	mes my (pl)	amis. friends.

Qu'est-ce que tu as fait? What did you do?

Perfect Tense

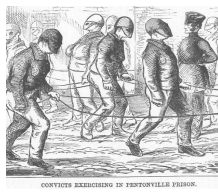
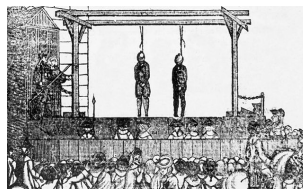
Time Phrase (23)	Verb(24)	PVS(25)	Noun(26)
	j'ai joué I played	au at (m)	netball. netball.
	j'ai fait I did	de la some (f)	danse. dance.
Hier, Yesterday,	j'ai regardé I watched	une a(f)	série Netflix. Netflix series.
Ce weekend, This weekend,	je suis allé(e) I went	au to the (m)	parc. park.
La semaine dernière, Last week,	j'ai mangé I ate	chez at	McDo. McDonald's.
	j'ai écouté I listened	un a (m)	podcast. podcast.



¿Qué te gusta ver en la televisión / al cine? - What do you like to watch on tv/ at the cinema?

Time phrase(1)	Opinion (2)	Noun(3)	Noun(4)	Connective (5)	Quality Vocab(6)	Verb(7)	Intensifier (8)	Adjective(9)
Cada mañana (every morning)	me chifla ver (I like to watch)	un concurso (a game show)	una película de aventuras (an adventure film)	porque (because)	afortunadamente Fortunately	es (it is)	bastante (quite)	aburrido (a) (boring)
Cada noche (every night)	me encanta ver (I love to watch)	un concurso de talentos (a talent show)	una película de ciencia ficción (a science fiction film)	dado que (because)	creo que (I think that)	no es (it isn't)	demasiado (too)	cautivador (a) (captivating)
Cuando puedo (when I can)	me gusta ver (I like to watch)	un documental (a documentary)	una comedia (a comedy)	ya que (because)	desafortunadamente Unfortunately		extremadamente (extremely)	decepcionante (disappointing)
De vez en cuando (from time to time)	me flipa ver (I like to watch)	una película (a film)	una película de dibujos animados (an animated film)	pero (but)	diría que (I would say that)		muy (very)	divertido (a) (fun)
Dos veces a la semana (twice a week)	suelo ver (I usually watch)	un programa de deportes (a sports programme)	una película de misterio (a mystery film)	sin embargo (however)	en mi opinión (in my opinion)		realmente (really)	educativo (a) (educational)
Todos los días (every day)	veo (I watch)	un programa de humor (a comedy programme)	un musical (a musical)		es verdad que it's true that		un poco (a bit)	entretenido (a) (entertaining)
Una vez a la semana (once a week)		una serie (a series)	una película del oeste (a western)		la gente dice que people say that		verdaderamente (truly)	escalofriante (chilling / hair-raising)
		un telediario (the news)	una película romántica (a romantic film)		no es verdad que it's not true that			interesante (interesting)
		una telenovela (a soap opera)			pienso que (I think that)			genial (great)
Ayer (yesterday)	me chifló ver (I liked to watch)				según mis amigos/as according to my friends	fue (it was)		predecible (predictable)
El fin de semana pasado (last weekend)	me encantó ver (I loved to watch)				siempre he pensado que (I've always thought that)	no fue (it wasn't)		tonto(a) silly
La semana pasada (last week)	me flipó ver (I liked to watch)				tengo que admitir que I must admit that			
	me gustó ver (I liked to watch)							
	vi (I watched)							

HISTORY THEMATIC STUDY: C&P- PUNISHMENTS



KT1: c1000-c1500 medieval England

1066 William crowned King - end of Anglo-Saxon England

1215 Trial by Ordeal ends

Capital punishment: death penalty / **Capital crime:** crime carrying the death penalty

Corporal punishment: punishment involving harm to the body, e.g whipping

Mutilation: punishment that maims or removes part of the body

Wergild: a fine that was paid to the family of a victim in Anglo-Saxon England

William of Normandy: becomes William I after Battle of Hastings

Stocks and pillories: devices that put criminals on public view

KT2: c1500-c1700 early modern England

1576 Houses of Correction begin

1605: Gunpowder Plot

1660 Transportation begins

1680's The Bloody Code begins

Carting: criminal is paraded around the streets to shame/humiliate them

Bridewells (Houses of Correction): and hard labour aim to reform

The Bloody Code: series of laws extend the death penalty to many minor crimes

Transportation: removing the criminal to another country (1st US colonies then Australia)

Hang, Draw and Quarter: brutal punishment for treason

Aims of Punishment

Deterrence: To warn others not to commit the same offence

Reform/Rehabilitation

To help the criminal improve their behaviour in the future, through making them think about their actions or giving them skills to avoid criminality in the future

Removal: To physically remove the criminal from society or the country

Compensation: The victim, government or society is paid back for the trouble or harm caused by the criminal

Retribution: The punishment should fit the crime so victims are satisfied

KT3: c1700-c1900 18th & 19th C Britain

1776 End of Transportation to America

1778 Transportation to Australia starts

1823 Gaols (Jails) Act (Peel's reforms)

1832 Punishment by Death Act - reduces number of capital crimes to 60

1839 Prisons Act introduces **Separate System**

1842 **Pentonville Prison** opens

1865 Prisons Act introduces **Silent System**

1857 Transportation to Australia ends

1868 End of public executions

Prison Hulk: old ships used as prisons, very unsanitary

Separate System: prison system aimed to reform through useful work

Silent System: harsher evolution of the separate system involving pointless hard labour, aim now changed to deterrence

Pentonville Prison: blueprint for purpose built silent system prisons

Reformers: people who want to change punishments for the better (*be careful not to mix up with reform as an aim of punishment*)

John Howard: Reformer - Inspected prisons and suggested improvements

Elizabeth Fry: Reformer - Visited women's prisons and campaigned to improve them

Robert Peel: Reformer - Home Secretary who introduced prison reform laws

Jeremy Bentham: Reformer - influenced aims of punishment and prison design

KT4: c1900-present modern Britain

1902 First Borstal opens

1933 Hanging of under 18s ended

1933 First open prison

1952 Derek Bentley Case

1965 Death Penalty ends

1972 Community Service introduced

1990s: Electronic tag introduced

Borstal: reform schools for offenders under 18 years old

Attendance Centre: young offenders' last chance before **Young Offenders Institution (YOI)**

Open prison: Prison where offenders could leave to work in the day

Parole: where a prisoner is released early if they behave well in prison

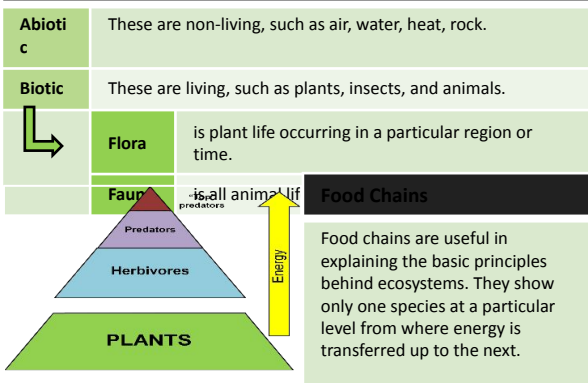
Probation: where an offender avoids a prison sentence but is closely monitored

Ruth Ellis/Derek Bentley/Timothy Evans: **Controversial trials** which made the public question the death penalty

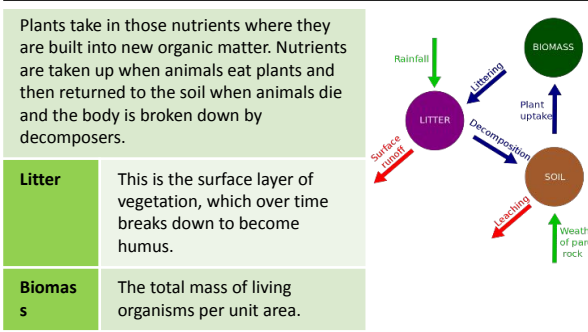
What is an Ecosystem?

An ecosystem is a system in which organisms interact with each other and with their environment.

Ecosystem's Components



Nutrient cycle



Tropical Rainforest Biome

Distribution of Tropical Rainforests

Tropical rainforests are centred along the Equator between the Tropic of Cancer and Capricorn. Rainforests can be found in South America, central Africa and South-East Asia. The Amazon is the world's largest rainforest and takes up the majority of northern South America, encompassing countries such as Brazil and Peru.

Rainforest water cycle

- Water evaporates
- Heavy daily convectional rain
- Trees take up water
- Trees intercept rain
- Some rain reaches the ground

Convectional rainfall

- The roots of plants take up water from the ground and the rain is **intercepted** as it falls.
- As the rainforest heats up, the water evaporates into the atmosphere.
- Finally, the water condenses and forms clouds to make the next day's rain.

Rainforest nutrient cycle

The hot, damp conditions on the forest floor allow for the rapid decomposition of dead plant material. This provides plentiful nutrients that are easily absorbed by plant roots. However, as these nutrients are in high demand from the many fast-growing plants, they do not remain in the soil for long and stay close to the surface. If vegetation is removed, the soils quickly become infertile

Climate of Tropical Rainforests

- Evening temperatures rarely fall below 22°C
- Due to the presence of clouds, temperatures rarely rise above 32°C
- Most afternoons have heavy showers
- At night with no clouds insulating temperature drops

Average monthly rainfall (mm)

2104mm of annual rainfall

Interdependence in the rainforest

A rainforest works through interdependence. This is where the plants and animals depend on each other for survival.

Ecosystems

Layers of the Rainforest

Emergent	Highest layer with tree reaching 50 metres.
Canopy	Most life is found here as it receives 70% of the sunlight and 80% of the light.
U-Canopy	Consists of trees that reach 20 metres high.
Shrub Layer	Lowest layer with small trees that have adapted to living in the shade.

Emergent Layer

Canopy Layer

U-Canopy

Forest Floor

Rainforest soil profile

Leaf Litter	Thin litter layer rapidly decomposes in heat.
Top Soil	Shallow topsoil is a mixture of decomposed organic matter and minerals.
Sub Soil	The sub-soil is deep due to weathering of rocks below.
Rock	Underlying rock weathers quickly at high temperatures to form sub-soil.

A biome is a large geographical area of distinctive plant and animal groups, which are adapted to that particular environment. The climate and geography of a region determines what type of biome can exist in that region.

Coniferous forest
Deciduous forest
Tropical rainforests
Tundra
Temperate grasslands
Tropical grasslands
Hot deserts.

The most productive biomes – which have the greatest biomass – grow in climates that are hot and wet.

Biome	Location	Temperature	Rainfall	Flora	Fauna
Tropical rainforest	Centred along the Equator.	Hot all year (25-30°C)	Very high (over 200mm/year)	Tall trees forming a canopy; wide variety of species.	Greatest range of different animal species. Most live in canopy layer
Tropical grasslands	Between latitudes 5°-30° north & south of Equator.	Warm all year (20-30°C)	Wet + dry season (500-1500mm/year)	Grasslands with widely spaced trees.	Large hooved herbivores and carnivores dominate.
Hot desert	Found along the tropics of Cancer and Capricorn.	Hot by day (over 30°C) Cold by night	Very low (below 300mm/year)	Lack of plants and few species; adapted to drought.	Many animals are small and nocturnal: except for the camel.
Temperate forest	Between latitudes 40°-60° north of Equator.	Warm summers + mild winters (5-20°C)	Variable rainfall (500-1500mm/year)	Mainly deciduous trees; a variety of species.	Animals adapt to colder and warmer climates. Some migrate.
Tundra	Far Latitudes of 65° north and south of Equator	Cold winter + cool summers (below 10°C)	Low rainfall (below 500mm/year)	Small plants grow close to the ground and only in summer.	Low number of species. Most animals found along coast.
	Found within 30° north	Warm water all year	Wet + dry seasons.	Small range of plant life which	Dominated by polyps and a

Tropical Rainforest Biome					Case Study: Deforestation in the Rainforest, Brazil - Impacts of deforestation					
Adaptations to the rainforest			Rainforest inhabitants							
Sloths	Are camouflaged to forest environment.		Many tribes have developed sustainable ways of survival, such as shifting cultivation. The forest provides inhabitants with... <ul style="list-style-type: none">Food through hunting and gathering.Natural medicines from forest plants.Homes and boats from forest wood.		Loss of biodiversity		River pollution			
Buttress Roots	Support tall trees & absorb nutrients.				<ul style="list-style-type: none">Clearing tropical rainforests means that biodiversity is reducedIndividual species will become endangered then possibly extinct		<ul style="list-style-type: none">Gold mining not only causes deforestation but the mercury used to separate the gold from the ground is allowed to enter the rivers. Fish are poisoned as well as local people			
Drip Tips	Allows heavy rain to run off leaves easily									
Lianas & Vines	Climbs trees to reach sunlight at canopy.			Benefits of the rainforest		Local impacts of climate change		Decline in indigenous tribes <ul style="list-style-type: none">Many indigenous tribes have been forced out of their homes by; Road construction, logging and the opening of mines.		
<ul style="list-style-type: none">Most widely reported cause of destructions to biodiversity.Timber is harvested to create commercial items such as furniture and paper.Has lead to violent confrontation between indigenous tribes and logging companies.	<ul style="list-style-type: none">Large scale 'slash and burn' of land for ranches and palm oil.Increases carbon emission.River saltation and soil erosion increasing due to the large areas of exposed landIncrease in palm oil is making the soil infertile.		Raw Materials	Commonly used materials such as timber and rubber are found here.		<ul style="list-style-type: none">Deforestation disrupts the water cycle as the felling of trees, evapotranspiration is reduced and so too moisture into the atmosphere.The recycling of water is like a cooling system. Once the recycling is reduced the local climate becomes warmer.				
			Water	Controls the flow of water to prevent floods/droughts regions..						
			Food	Important foods such as Bananas, pineapples and coffee are grown there.		Soil erosion and fertility		Conflicts <ul style="list-style-type: none">Disputes between indigenous people and loggers and other developers of the rainforest often end in open conflict.Disputes arise because people have conflicting views about the rainforest for example, conservationists and developers.		
Mineral Extraction	Tourism		Health	25% of modern medicines are sourced from rainforest ingredients.		<ul style="list-style-type: none">As soon as any part of the forest cover is cleared, the thin top soil is removed by heavy rainfall.Once the top soil is removed there is little hope of growing anything again.				
<ul style="list-style-type: none">Precious metals are found in the rainforest.Areas mined can experience soil and water contamination.Indigenous people are becoming displaced from their land due to roads being built to transport products.	<ul style="list-style-type: none">Mass tourism is resulting in the building of hotels in extremely vulnerable areas.Lead to negative relationship between the government and indigenous tribesTourism has effected wildlife (apes) by exposing them to human diseases.		Energy	Large dams generate 2/3 of Brazil's energy needs.						
			Climate	Acts as carbon sinks by storing 15% of carbon						
			Case Study: Deforestation in the Rainforest, Brazil							
Location & Background				Commercial farming: cattle						
Brazil is located in South America. It is the fifth largest country in the world and contains the largest area of tropical rainforest.				<ul style="list-style-type: none">. Large areas of the tropical rainforest have been cleared for cattle.It widely believed that the rearing of cattle is responsible for 80% of deforestation in BrazilThe pastures cant be used for long and farmers quickly move on to new pastures						
Logging										
<ul style="list-style-type: none">Most widely reported cause of destructions to biodiversity.Timber is harvested to create commercial items such as furniture and paper.Has lead to violent confrontation between indigenous tribes and logging companies.				Commercial farming: Crops						
				<ul style="list-style-type: none">The rainforest I being cleared for vast plantations, crops such as palm oil, bananas, pineapple, sugar cane and coffee.After a few years farmers have to cut down new rain forest to make way for new crops						
Mineral extraction				Road building and settlement						
<ul style="list-style-type: none">Precious metals are found in the rainforest.Areas mined can experience soil and water contamination.Indigenous people are becoming displaced from their land due to roads being built to transport products.				<ul style="list-style-type: none">Roads are needed to bring in equipment and transport but road building menas cutting large areas of rainforestWorkers in the rainforest need houses to live in and services to use. That in turn means clearing further areas of the rainforest.						

Resource Challenges

Resources are things that humans require for life or to make our lives easier. Humans are becoming increasingly dependent on exploiting these resources, and as a result they are in high demand.

Significance of Water

Resources such as food, energy and water are what is needed for basic human development.

FOOD

Without enough nutritious food, people can become **malnourished**. This can make them ill. This can prevent people working or receiving education.

WATER

People need a supply of **clean and safe water** for drinking, cooking and washing. Water is also needed for food, clothes and other products.

ENERGY

A good supply of energy is needed for a basic standard of living. People need **light and heat** for cooking or to stay warm. It is also needed for

Demand outstripping supply

The demand for resources like food, water and energy is rising so quickly that supply cannot always keep up. Importantly, access to these resources vary dramatically in different locations

1. Population Growth

- Currently the global population is **7.3 billion**.
- Global population has risen **exponentially** this century.
- Global population is expected to reach **9 billion by 2050**.
- With more people, the **demand** for food, water, energy, jobs and space **will**

2. Economic Development

- As **LICs** and **NEEs** develop further, they require **more energy** for industry.
- LICs** and **NEEs** want similar lifestyles to **HICs**, therefore they will need to **consume more resources**.
- Development means **more water** is required for food production as diets improve.

Resource Reliance Graph

Consumption – The act of using up resources or purchasing goods and produce.

Carry Capacity – A maximum number of species that can be supported.

Resource consumption exceeds Earth's ability to provide!

3. Changing Technology and Employment

- The demand for resources has driven the **need for new technology** to reach or gain more resources.
- More people in the **secondary and tertiary industry** has increased the demand for resources required for electronics and

Food in the UK

Growing Demand

- The UK imports about 40% of its food. This increases people's **carbon footprint**.
- There is growing demand for greater choice of **exotic foods** needed all year round.
- Foods from abroad are more affordable.
- Many food types are unsuitable to be grown in the UK.

Agribusiness

Farming is being treated like a large industrial business. This is increasing food production.

+ Intensive farming maximises the amount of food produced.

+ Using machinery which increases the farms efficiency.

- Only employs a small number of workers.

- Chemicals used on farms damages the habitats and wildlife.

Impact of Demand

Foods can travel long distances (food miles). Importing food adds to our carbon footprint.

+ Supports workers with an income + Supports families in LICs.

+ Taxes from farmers' incomes contribute to local services.

- Less land for locals to grow their own food.

- Farmers exposed to chemicals

Sustainable Foods

Organic foods that have little impact on the environment and are healthier have been rising. Local food sourcing is also rising in popularity.

- Reduces emissions by only eating food from the UK.
- Buying locally sourced food supports local shops and farms.
- A third of people own food.



The Challenge of Resource

Energy in the UK

Growing Demand

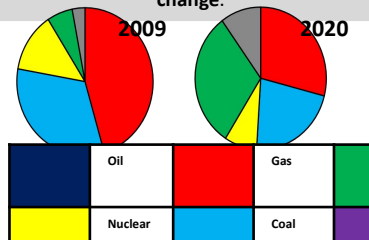
The UK consumes less energy than compared to the 1970s despite a smaller population. This is due to the **decline of industry**.

Changes in Energy Mix

- 75% of the UK's oil and gas has been used up.
- Coal consumption has declined.
- UK has become too dependent on

Energy Mix

The majority of UK's energy mix comes from **fossil fuels**. By 2020, the UK aims for 15% of its energy to come from **renewable sources**. These renewable sources do not contribute to **climate change**.



Water in the UK

Growing Demand

The average water used per household has risen by **70%**. This growing demand is predicted to increase by **5% by 2020**.

This is due to:

- A growing UK population.
- Water-intensive appliances.
- Showers and baths taken.
- Industrial and leisure use.
- Watering greenhouses.

Pollution and Quality

Cause and effects include:

- Chemical run-off from farmland can destroy habitats and kills animals.
- Oil from boats and ships poisons wildlife.
- Untreated waste from industries creates unsafe drinking water.
- Sewage containing bacteria spreads infectious diseases.

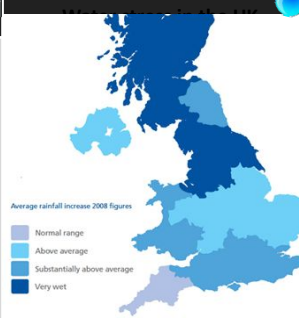
Management

UK has **strict laws** that limits the amount of discharge from factories and farms. **Education campaigns** to inform what can be disposed of safely. **Waste water treatment plants** remove dangerous elements to then be used for safe drinking. Pollution traps catch and filter pollutants.

Deficit and Surplus

The north and west have a **water surplus** (more water than is required).

The south and east have a **water deficit** (more water needed than is actually available). More than half of England is experiencing **water stress** (where demand exceeds supply).



Water Transfer

Water transfer involves moving water through pipes from areas of surplus (Wales) to areas of deficit (London).

Opposition includes:

- Effects on **land and wildlife**.
- High maintenance **costs**.
- The **amount of energy** required to move water over long distances.

Energy in the UK (continued)

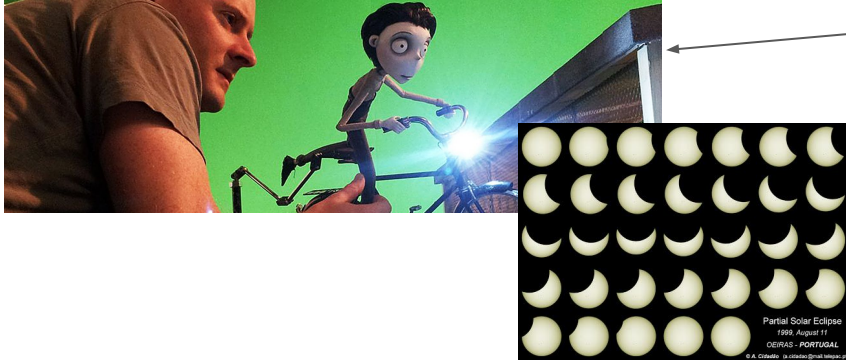
Significance of Renewables

+ The UK government is investing more into low carbon alternatives.
+ UK government aims to meet targets for reducing emissions.
+ Renewable sources include wind, solar and tidal energy.
- Although infinite, renewables are still expensive to install.
- Shale gas deposits may be exploited in the near future

Exploitation

Nuclear
New plants provide job opportunities.
Problems with safety and possible harm to wildlife.
Nuclear plants are expensive.
Wind
Locals have low energy bills.
Reduces carbon footprint.
Construction cost is high.

Year 9 ICT & Computer Science

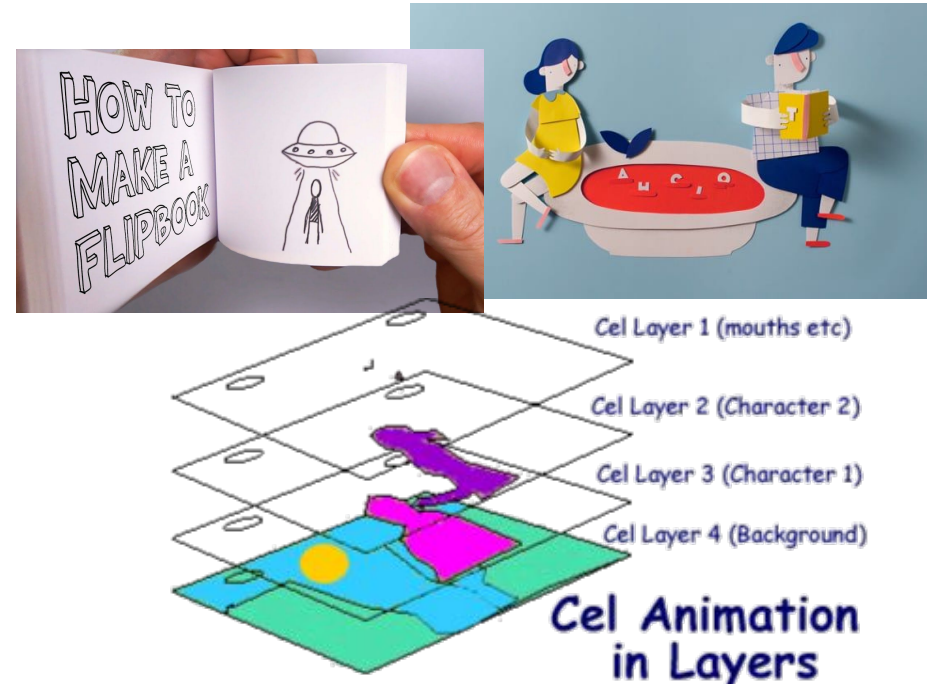


Animation Techniques

Frame by frame	Where an animation is drawn one frame at a time. The small differences in each frame creates the movement
Onion skinning	An animation technique where you can see several frames at once. Seeing the last few frames you have drawn helps you to design the next ones
Key frame	Where an animation draws the start and end point and another person or computer fills in the frames in the middle
Inbetweening	The process of drawing what happens between two key frames.
Still motion	Similar to stop motion but the next frame doesn't have to be related to the last one.
Squash and stretch	Where a shape is squashed or stretched in an animation to make it look flexible, bendy or full of life.
Layering	Where one image (or layer) is stacked on top of others. The background may be one layer with some scenery in the next and a character in another layer.

Animation Types

Stop motion	A way of making objects look like they are moving by shooting a single frame, moving the object a bit, then shooting the frame again. This process is repeated.
Time-lapse	Where frames are captured over a long period of time then played together sped up.
Cel animation	Where objects are drawn onto a transparent plastic sheets called 'cels' to overlay over a video.
Cut out	Stop motion animation but using cut out characters, props, and backgrounds.
Flipbook	A series of pictures shown in sequence quickly. A book may be used to present the animation by flipping through the pages.
Digital animation	Animation created using a computer.



Art - Experimentation

Who is Vincent Van Gogh?



1. Vincent Willem van Gogh was born March 1853 – 29 July 1890 and was a Dutch post-impressionist painter who became one of the most famous and influential figures in the history of Western art.
2. He created about 2,100 artworks, including around 860 oil paintings, most of which date from the last two years of his life.
3. They included landscapes, still lifes, portraits and self-portraits.
4. They are characterised by bold colours and dramatic, impulsive and expressive brushwork that contributed to the foundations of modern art.
5. Although van Gogh painted many nocturnal scenes during his lifetime, "The Starry Night" became his most famous. "The Starry Night" has long been the center of artistic and scientific debate.

What is realism?

Realism refers to a mid nineteenth century artistic movement, characterised by subjects painted from everyday life in a natural way.

The term is also generally used to describe artworks painted in a realistic way. Realism artists tried to portray the real world exactly as it appears.



They painted everyday subjects and people. They didn't try to add the setting or emotional meaning to the scenes. The Realism movement started in France after the 1848 revolution. Unlike some other artistic movements, there was little sculpture or architecture as part of this movement.

What is Arts Media?

Arts media is the material and tools used by an artist or designer to create a work of art, for example, "pen and ink" where the pen is the tool and the ink is the material. Understanding the properties of different media and materials and how they might be used can help you make effective choices in your work.

Be open-minded when experimenting. Don't be afraid to try things. Even if something is unsuccessful, you will have shown that you have tried and learned valuable lessons. Choice of materials and technique will affect the style of your work.

Media and Materials



What types of media is there?

Water colours

Watercolour is available in solid blocks or tubes. It can be quick to use and a small watercolour set is very easy to work with on location.

The paint is transparent and works best on light paper. Colours can be lightened by adding water rather than adding white.

Oil Pastels

Pastels come in two varieties – oil pastels and chalk pastels. Both are quick to use and easy to control.

Chalk pastel are soft and can be blended with your finger or a cotton bud. Oil pastels are blended by applying one colour on top of the other.

Pastels work best on a rough paper. Coloured paper or black paper make effective backgrounds. You could prepare a background by rubbing the side of a pastel across it before starting your drawing.

Acrylic Paints

Acrylic paints are opaque paints that create marks of solid colour. This means it is easy to paint over mistakes.

Tints, tones and shades can be created by mixing colours with white, grey or black.

They can be used on white, coloured or black paper or used experimentally on a range of other 2D and 3D surfaces. Acrylic can be mixed with water to create more transparent washes.



Practical Design

Who is Louise Nevelson?

1. Louise Nevelson was an American sculptor known for her monochromatic, wooden wall pieces and outdoor sculptures.
2. Nevelson experimented with art using found objects, she often collected materials discarded on New York City streets to make her textured sculptures.
3. Usually created out of wood, her sculptures appear puzzle-like, with multiple cut pieces placed into wall sculptures or independently standing pieces, often 3-D.
4. One unique feature of her work is that her figures are often painted in monochromatic black or white.
5. Her work is seen in major collections in museums.. Nevelson remains one of the most important figures in 20th-century American sculpture.



What is Art Deco?

- Created in Paris in 1925, art deco can be seen as a reaction against art nouveau (another art movement).
- Seen in furniture, pottery, textiles, jewellery, glass etc. it was also a used when designing styles of cinema and hotel architecture.
- The big difference from art nouveau is the influence of cubism which gives art deco design generally a more fragmented, geometric look.
- However, images based on plants and curves remained in some art deco design.
- Art deco took inspiration from ancient Egyptian art, Aztec and other ancient Central American art, as well as from the design of modern ships, trains and motor cars.



What is relief?

A relief is a sculpture in which the three-dimensional elements are raised from a flat base. The term relief is from the Latin verb *relevo*, meaning 'to raise'. To create a sculpture in relief is to give the idea that the sculpted material has been raised above the background.

The opposite of relief sculpture is *counter-relief*, *intaglio*, or *cavo-rilievo*, where the form is cut into the field or background rather than rising from it.

Reliefs are common throughout the world on the walls of buildings and a variety of smaller settings, and a sequence of several panels or sections of relief may represent an extended story.

Three-dimensional Work - What is it?

Three-dimensional work is made by one of four basic processes: carving, modelling, casting, constructing

Carving

Carving is a sculptural technique that involves using tools to shape a form by cutting or scraping away from a solid material such as stone, wood, ivory or bone.

Casting

Casting involves making a mould and then pouring a liquid material, such as molten metal, plastic, rubber or fibreglass into the mould.

A mould can be cast more than once, allowing artists to create editions of an artwork.

Modelling

Modelling is an additive process. This means a soft material is worked by the artist to build up a shape or form.

Constructing and assembling

These are still life subjects made from scrap (found) materials glued together. Artists have used techniques including bending, folding, stitching, welding, bolting, tying, weaving, and balancing to construct sculptures from a wide variety of materials and found objects.



Drama Keywords

Musical Theatre	A form of theatrical performances which combines songs, spoken dialogue, acting & dance. This is a style of theatre.
Expression	Use of Facial Expression to SHOW how you feel.
Body Language	To show your emotion & TOWARDS others in your body.
Emotion	To show your feelings of your character to the audience through expression, body and voice.
Reactions	To respond to each other as characters, on stage. Reacting to their words, feelings, actions.
Chorus/Ensemble	This describes a group of individuals working together on a play or musical. They have a similar amount of staging time, working together on the acting, dancing & singing.
Spoken Dialogue	This is the words spoken in a play or musical, & helps to tell the story. This is not singing.
Accompaniment	This is the musical part which creates the rhythm, melody for the songs & music written. This can be for the vocals (songs) to help tell the story or it can be instrumental (no words sung) This creates a mode & atmosphere.
Orchestra	A group of instrumentalists, including strong, bass, piano, brass, percussion, to play the music written. This is part of a Theatre where the orchestra plays, sometimes in front of the staging in a pit, or on stage.
Gauze	A curtain that is used through shining light either from the front of the stage (downstage), or from upstage. This creates silhouettes, outlines of the actors, objects, set. This creates a mystery to the performance.

Year 9 Drama: Aladdin The Musical

(April- July)



Key Knowledge:

- For this unit, you will learn about the style & genre of **Musical Theatre**, looking at the characteristics of this style; mixing acting, dancing & singing together to help tell a story.
- You will be watching a clip of '**Aladdin The Musical**'; made up of well-known Disney film, story & characters.
- You will be exploring the story & journey of Aladdin & Princess Jasmine, Of wishes, truth & acceptance of who you are. It shows such vibrant set, Costume, lighting, staging, to entertain the audiences, & believe in happy endings.
- You will be exploring sections of the script in small groups. You will apply your ideas for the skills with how they show their characterisation & also the techniques needed to set the scenes.
- In your practical lessons, you will be bringing the **spoken dialogue** to life. Your use of voice, expression, body language, gesture, will help portray your characters in this story.
- You will show your knowledge of the characteristics of Musical Theatre, characters & plot, through costume, lighting & set designs. This will show the **style of Musical Theatre**.
- You will be able to have a mixture of practical & theoretical tasks; setting & directing the scenes, acting out the lines for the different characters, & the continuation of theory tasks of character skills, set, costume, lighting, staging designs.
- You will also develop your analysis review skills of a performance & sample GCSE questions for written preparation.
- We will be applying the performance assessment criteria, giving each other peer feedback alongside teacher feedback & setting targets.

Use of Practitioners, Performance Spaces:

Stanislavski:

Creating as much Naturalism/Realism as possible on stage. Thinking about the 'Magic If': What if I was this character? How would I feel? AND the 'GIVEN CIRCUMSTANCES' (What has Your character been through...)



Brecht:

Creating drama to show the mechanics of Theatre on stage. This will show the actors multi-rolling & showing costume changes on stage. This also shows set changes, with the actors bringing set on & off stage..

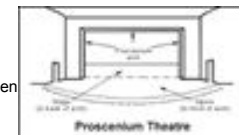
Berkoff:

This creates a more physical approach to a Drama piece. Through the use of physical Theatre, Mime & Movement, this shows a more visual & expressive approach, style to the performance piece.

When I started studying acting, I was enamoured of actors who used movement to enhance the language.
Steven Berkoff

Proscenium Arch Staging:

Audience have one viewpoint & a frame is created. Also a 'Fourth wall' is made between Audience & actors.



Drama techniques, skills (Remember all of the previous ones and lighting.

Euthanasia

Euthanasia is illegal in the UK, It can be seen as assisted suicide, therefore breaking the **Suicide Act of 1961**. It can be viewed as manslaughter or murder and carries a prison sentence. However a medical decision may be made to withhold treatment if it is considered to be in the patient's best interests.

FOR	AGAINST
<ul style="list-style-type: none"> God gives people free will to end their own life. It may be the most loving and compassionate thing to do – 'Love your neighbour' Allows a dignified death 	<ul style="list-style-type: none"> Only God should take life at the time of his choosing Open to abuse and may be against the will of the ill person. Inheritance issues may encourage relatives to pressurise the ill to agree to euthanasia.

Philosophy and Ethics - MEDICAL ETHICS

Genetic Engineering

Scientists can now alter the genes of any living thing = plants for example, crops which are genetically modified to resist disease, animals and human beings. They can create new kinds of plants and animals by changing or engineering their genetic make-up, for example, by using human genes.

It is now possible to modify genes in order to create people of superior intelligence, perfect weight and happy personalities. Your surroundings, wealth, education and diet can all be overcome if you are created with the right combination of genes in the laboratory. Environment and upbringing do not matter.

Abortion

The law defines abortion as **"the deliberate expulsion of a foetus from the womb, with the intention of destroying it"**. In the UK abortion is allowed up until 24 weeks of a pregnancy under special circumstances, i.e. if two registered doctors agree that there is a danger to the women's mental or physical health, the foetus will be born with disabilities, or the mental or physical health of existing children will be put at risk.

However, many people believe that it is the woman who should have the choice as to what happens to her body and therefore it is for her to make up her own mind. There are also circumstances such as rape, genetic abnormalities or failed contraception which cause debate on both sides of the argument.

Pro-Life: term used for arguments against abortion.

Pro-choice: arguments in favour of having the CHOICE to choose an abortion

Fertility Treatment

There are 3 main procedures that you need to be aware of:

• **I.V.F (In Vitro Fertilisation)** - This is the process of joining a human egg and sperm together in laboratory conditions to produce an embryo, which is then placed in the woman's womb where it is able to develop into a foetus and then a baby. To be successful, often several embryos are created although only one or two will be successfully used to create life.

• **Donor Eggs:** If a woman is unable to produce healthy eggs, she may need to use donor eggs.

• **Donor Sperm:** If a man is unable to produce healthy sperm, he may need to use donor sperm.

FOR

- Some Christians agree with abortion if the baby will have a very poor quality of life.
- CoE and the Methodist church say that sometimes it is 'the lesser of two evils'.
- The woman's life comes first – she has the right to choose whether she continues the pregnancy.

AGAINST

- The Catholic Church believes life begins at conception so abortion is taking away life.
- Jeremiah 1:5 shows that God has a plan for everyone – abortion takes this away, so is considered wrong.
- "Before I formed you in the womb I knew you, before you were born I set you apart."

Sanctity of life	The belief that there is something special or holy about life.
Abortion	A gentle or easy death.
Cloning	Making of an exact replica.
Suicide	When a person ends his or her own life.
Euthanasia	The deliberate expulsion of the foetus from the uterus.
Hospice	A place where terminally-ill patients are cared for.
Embryo	The human product of conception in early days of pregnancy.
Fertility Treatment	any treatment or medical procedure intended to increase the likelihood of a person successfully conceiving a child.
Designer Baby	a baby whose genetic make-up has been selected in order to eradicate a particular defect, or to ensure that a particular gene is present.

The Contents of the law

Abortion

- Two doctors must agree
- Mothers physical or mental health at risk
- The physical or mental health of other children is at risk
- The child will be physically or mentally disabled
- Must be carried out by 28th week of pregnancy (*changed to 24th week in 1990*)

Euthanasia

Euthanasia is illegal in Britain.

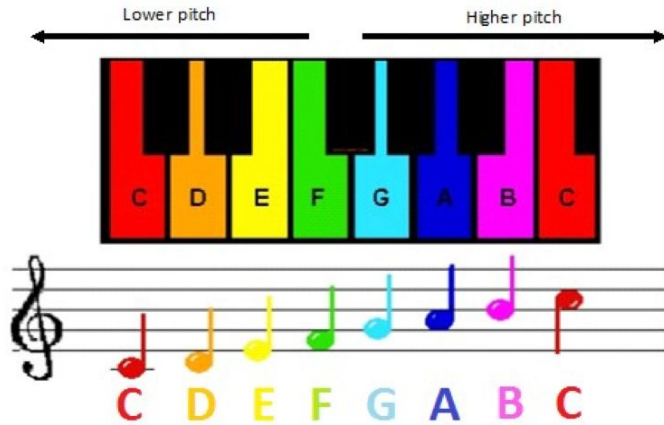
Euthanasia guidelines in The Netherlands

- There must be persistent, informed and voluntary requests by a patient who is aware of all the alternative treatments.
- There must be relentless suffering.
- There must be an independent medical appraisal by at least one other doctor supporting the decision.
- After death, the doctor must complete an exhaustive questionnaire and inform the coroner, who will visit to view the body and to verify the facts. The Ministry of Justice decides on the basis of this report whether or not to prosecute the doctor.

- *'You should be able to choose what your baby will look like'*
- *'The rights of the child outweighs the rights of the mother.'*
- *'Only God should decide when you live or die'*

BLUES IMPROVISATION

12 BAR BLUES CHORDS

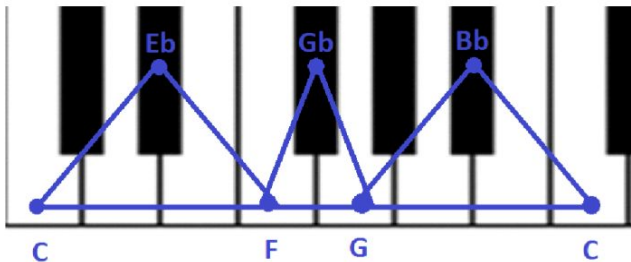


Walking Bass

The bass part in Blues 'walks' up the notes of a chord creating a 'walking bass' part.

Blues Scale

The melody of a blues piece, uses a special scale. This blues scale is built using: **C Eb F Gb G Bb C** (remember the 3 triangles below)



Chords in the 12 Bar Blues

C (CEG) C (CEG) C (CEG) C (CEG) F (FAC) F (FAC) C (CEG) C (CEG) G (GBD) F (FAC) C (CEG) G (GBD)



Improvisation

To make music up on the spot without planning. This was widely used in Blues music.

Syncopation

When music is played on the off-beat (i.e. not played on the main beats of the bar). Syncopation create a disjointed feel.

12 Bar Blues

Traditional style of music, using 3 chords (C, F, G) over a 12 bar cycle. See the diagram below.

Chord	Keyboard	Ukulele	Notes
C			C E G
F			F A C
G			G B D
Am			A C E

Song Structure

A typical pop song consists of: Verse - Chorus - Verse - Chorus - Middle 8 - Chorus - Instrumental - Chorus

Accompaniment

The accompaniment is the background music that supports a melody. This is provided by the chords, played either on Piano or Guitar

Chord

A chord is 3 notes played at the same time. This type of chord is called a **triad**. Only certain notes sound nice as a chord. The notes have to have a space of 1 keyboard key between them. There are 2 types of chord: Major and Minor. Major chords sound happy, Minor chords sound sad.

Music

Key Words - Music Genres of the 20th/21st Centuries

Jazz- Afro- American inspired music from 1920's/ 30's

Big Band- large group of musicians playing jazz or dance music, popular in 1940's wartime Britain and USA

Rock and Roll- strong 12 bar structure with heavy beat and simple melodies. Mix of black rhythm and blues and white country music. Made popular by Elvis Presley 1950's

'Swinging Sixties'- rise of the pop song - Beatles and their 2 electric guitar sound. Also Motown - black Soul artists such as Marvin Gaye.

'Glam Rock'- 1970's rock music such as Bowie, Elton John, Queen and Kiss, together with **Disco music** of ABBA and the Bee Gees and **Funk** and **Soul** of James Brown and Chic

'Punk Rock' - loud music of 1970's characterised by violent protest lyrics performed by socially defiant artists eg. the Sex Pistols and the Clash. A decade of many differing genres.

'New Romantics' - 1980's synth pop music and electronic genres eg. Duran Duran, Spandau Ballet, Howard Jones, Ultravox, Adam Ant, Depeche Mode, Michael Jackson.

Hip hop - 1980's MCing, rapping, DJing, scratching with turntables, break dancing, graffiti writing & sampling beats,

Beatboxing eg Run-D.M.C. Beastie Boys, Salt-N-Pepa.

Rap - 1980's Rhythm And Poetry. - Sugar Hill Gang

Grunge- 1990's rock music featuring heavy electric guitar riffs, dragging lyrics and heavy drumming eg Nirvana.

Garage- electronic music of the 1990's eg Craig David, So Solid Crew, Mis-Teeq,

Boy Bands/Girl Bands -1990's Take That, West Life, Spice Girls.

Grime - 2000's electronic dance music. Draws from garage, dancehall and hip hop eg Jay Z, Eminem, N-Dubz

DRUMKIT SKILLS

LEARN THE NAMES OF THE DIFFERENT KIT BELOW



DRUMKIT TERMINOLOGIES - KEY WORDS

- DRUM ROLL- RAPID SUCCESSION OF BEATS
- RIM SHOT - DRUMSTICK STRIKES THE RIM AND THE HEAD OF THE DRUM SIMULTANEOUSLY.
- PARADIDDLE- LRLl OR RLRR STICK PATTERN
- DRUM 'FILL'-PLAYING EACH DRUM IN SUCCESSION

YR 9 - 3a/b - KEY VOCABULARY -

ELEMENTS OF MUSIC

TONALITY - RELATIONSHIP BETWEEN NOTES, CHORDS AND KEYS

Major- cheerful, bright, joyful sounding

Minor- serious, sad or dark sounding

Modal - various fixed orders of the various notes in an octave

Atonal- music that lacks a tonal centre

STRUCTURE - THE WAY A PIECE IS BUILT UP

Binary form A B - musical form in 2 different but related sections eg Empire of the Ants by Gorillaz and Greensleeves by Henry VIII

Ternary form A B A - musical form in 3 sections, the 3rd section being a repeat of the first eg Twinkle Twinkle Little Star by Mozart and Minuet in G by Beethoven.

Rondo form A B A C A - musical form with a recurring leading theme eg Every Breath you take by The Police and Fur Elise by Beethoven

Verse-chorus form - song writing structure built around 2 repeating sections, a verse and a chorus. eg Chasing Cars by Snow Patrol eg La Donna E Mobile from Rigoletto by Verdi

Strophic form AAA - a song structure form where all verses are sung to the same music. eg Amazing Grace. by John Newton and Silent Night by Gruber

Through Composed - different music for each verse/stanza of the lyrics. eg. Bohemian Rhapsody by Queen and The Erl-King by Schubert

MELODY/PITCH - THE 'TUNE' HIGH AND LOW SOUNDS

Conjunct - a melody that moves smoothly and in small tone or semitone steps

Disjunct - an angular melody with large leaps between notes

Treble clef lined notes- E G B D F - Every Green Bus Drives Fast

Treble clef space notes- F A C E

Bass clef lined notes - G B D F A - Green Buses Drive Fast Always

Bass clef space notes - A C E G - All Cows Eat Grass

TEXTURE - LAYERS OF SOUNDS

Monophonic - 1 layer, 1 single melody

Polyphonic - 2 or more different melodies played at the same time.

Homophonic - Several parts all moving at the same time

Heterophonic - 1 melody, but different variations of it are being sung or played at the same time.

WORD SETTING - HOW WORDS ARE SET TO MUSIC

Syllabic- each syllable of a word is broken up and given to an individual note. One syllable, one note.

Melisma- a musical phrase of several notes sung to 1 syllable

Vocables - sequence of sounds or letters sung without meaning eg. Ooh, aah, lah,

DYNAMICS - VOLUME

pp - pianissimo - very quiet

p - piano - quiet

mp - mezzo piano moderately quiet

mf - mezzo forte - moderately loud

f - forte - loud

ff - fortissimo - very loud.

TEMPO - SPEED

Allegro - fast

Presto - very fast

Vivace - lively

Andante - at a walking pace

Allegretto - quite quick

Lento - slowly

Accel - **accelerando** - gradually getting faster

Rall - **rallentando** - gradually getting slower

Rit. - **ritardando** - gradually getting slower

HARMONY - SIMULTANEOUSLY BLENDING NOTES.

Chord - a group of 3 or more notes played together at the same time.

Triad - 3 notes vertically stacked in thirds and played at the same time

Cadence - the sequence of chords at the end of a musical phrase.

Tonic - 1st note of a scale and tonal centre of a key- I

Dominant - 5th note of a scale- V

Subdominant - 4th note in a scale - IV

Diatonic - notes that belong to a key.

Chromatic- notes not in the scale of a key

Atonal - music with no tonal centre

Dissonant - harshness, clashing, jarring sounds

INSTRUMENTS/TIMBRE/SOUND

Strings - violin, viola, cello, double bass, harp.

Woodwind - flute, piccolo, oboe, cor anglais, clarinet, bass clarinet, saxophone, bassoon, double bassoon

Brass - trumpet, French horn, trombone, tuba.

Percussion - hand held eg cowbell, tuned percussion eg glockenspiel, drums and 'kitchen sink' eg rattles, whistles

RHYTHM - THE REGULAR PULSATION OF MUSIC

Time signature 4/4 - a sign to indicate meter. The top number specifies how many beats in a bar and the bottom, which type of note value is to be given one beat.

Compound Time - each beat in a bar is divided into 3 equal, shorter beats





















Simple Time - 4/4 or 3/4 or 2/4 or 2/2

Syncopation - where the strong emphasis in the rhythm falls on a normally weak beat.

Cross Rhythms - two rhythms with different emphases played at the same time.

Triplet - 3 notes played in the time of 2.

Note Values

Note	Name	Beats	Rest	Note	Name	Beats	Rest
	Semibreve	4			Dotted Semibreve	6	
	Minim	2			Dotted Minim	3	
	Crotchet	1			Dotted Crotchet	1 1/2	
	Quaver	1/2			Dotted Quaver	3/4	
	Semiquaver	1/4			Dotted Semiquaver	3/8	

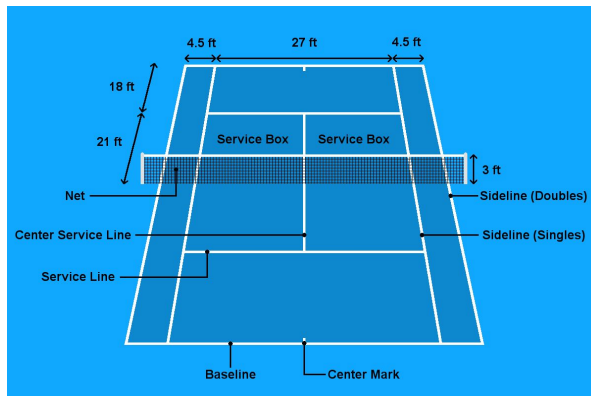
PE - Tennis Year 9

Singles - In order to win the **game**, a **player** must win at least four points. If you are up 40-30, 40-15 or 40-love, and win one more point, you win the **game**.

Doubles - The **rules** for **doubles** are the same as singles, except the wider court is used. Players within a pair do not have to hit alternate shots. However, the serve rotates so that each player serves once every fourth game.

Skills in isolation	Application of Skills
Forehand Lob	Tactical application: movement pressure, variation, deception, serve and volley
Backhand Lob	Appropriate shot selection with length, height, speed and angle
Drop shot	Take into account opponents strengths and weaknesses.
Serve	Demonstrate communication effectively in doubles.

Can you identify any famous singles and doubles players?



?

1. Can you lead a tennis specific warm up to at least half of the class?
2. What skills do you need to have to outwit your opponents?
3. Can you evaluate and justify your fitness component strengths in tennis?
4. Can you evaluate and justify your fitness component weaknesses in tennis?
5. Can you apply tactical strategies to a game?

PE - Striking and Fielding Y9

Bowling and Pitching

?

1. Can you lead a S&F specific warm up to at least half of the class?
2. What skills do you need to have to outwit your opponents?
3. Can you evaluate and justify your fitness component strengths in S&F?
4. Can you evaluate and justify your fitness component weaknesses in S&F?
5. Can you apply tactical strategies to a game?

Cricket - Bowler

1. The bowler must not throw the ball, but bowl the ball overarm at the stumps, which are at either end of a 22-yard area called a wicket.
2. A batter is declared out if the bowler knocks off the bails of the stumps with a delivery.

Rounders - Bowler

1. Must bowl under arm
2. They must bowl from inside the bowling square
3. The ball must be between the batter's shoulder and knee
4. The ball must travel through the batting square

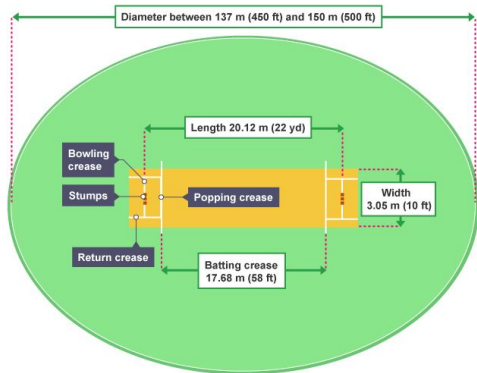
Softball - Pitcher

1. Must bowl under arm
2. Must reach 6f in flights
3. Must be between batters shoulder and waist at the base
4. Must travel through the base

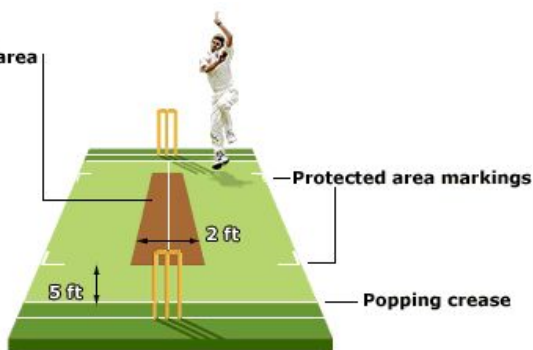


Key Words

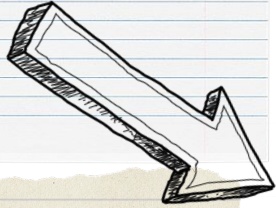
Grip	Umpire
Stance	Call
Shot	Out
Catch	
Swing	
Hips	



Protected area



ACCELERATION THROUGH DEPTH...



ENGLISH

- Research the writer's context and explain the links between this and the writer's purpose.
- Can you make links between this text and another text you have studied?
- Can you change any words in your writing today using your knowledge organiser?
- Turn the text, or its key ideas, into another form (poem, article, letter, speech, short story, etc)

MATHS:

- Please go to the NRICH postcards and select a problem to solve.

SCIENCE:

- **Content:** Using the topics you have studied so far in science, can you make any links? What understanding from other topics do you need to have for the topic you are studying now? Can you do this across biology, chemistry and physics?
- **Context:** Looking at what you have been covering during the topic you have been covering, can you put the science into a real life context? When would what you understand be important to someone's life? Can you link it to any careers and jobs?
- **Practical skills:** Look at a set of data you have collected in a recent practical. Describe and explain the trend in your data in as much detail as you can. How could you make your data more repeatable and reproducible? Can you find any errors, systematic or random? How could you reduce the error? Is your data accurate and valid? How could you make the data more accurate and improve the validity.

PE:

- What training method/s would be suitable for your sport?

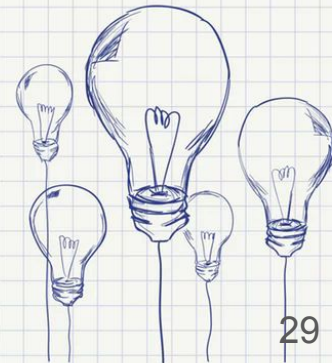
GEOGRAPHY

- The answer is Geography. What are 5 possible questions?
- How do you think Geography in school will change over the next 10 years with the development of new technology?
- List words associated with geography (A-Z)

MFL:

Research how to form the present tense in French either by using the link <https://youtu.be/p1RfmaoYZFI> or asking your teacher for a grammar sheet.

- Create a help sheet for other students to explain the rules with step by step instructions.
- Design a worksheet with an answer sheet which can be used in other French classes.



HISTORY:

- Strengthen your evidence; read through your work, can you swap any words for key terms.
- Write an evaluate question about this topic
- Outline an idea of how could you teach this topic in a different way to either younger, peers or older students?
- Identify how this topic links to any British Values:
Democracy.
Individual liberty
Mutual respect
Tolerance of those of different faiths & beliefs.

ART/DESIGN

- Explore the work of an artist or designer linked to the Art or Design movement on your KO page by producing a mini artist study. (Visit **the Tate** website)
- Investigate 3 different art, modelling or textile techniques. How could you apply these to an end piece?
- Create your own project for a class to study using the current theme of your work.
- Visit **the Tate** website and complete one of the activities they've created.

ME:

- Include two quotations from scripture in your answer.
- Create 5 questions that your teacher might ask you about what you have learnt about today.
- Transform today's learning outcomes into questions.
- Select 5 key terms that you have used in your work today.
- Create a sentence using all of these terms.
- Based on what you have learnt today, what do you think that you should study next lesson and why?
- Produce a summary of what you have learnt today. When done, reduce it to either a single sentence of three bullet points

MUSIC:

- Demonstrate and improve your depth of knowledge and understanding by reading through your written work and swapping normal words for more technical 'musical' words and Italian terms.
- In 'listening library' tasks - extra to the written criteria requested - try and direct your listening to as many of the other different elements of music as well, and include comments and information about them also. Again use Italian terms where possible.

DRAMA:

- Discuss and Write the Changes that you would have made to your performance piece, if you could create and perform this again. (Write about the Drama Skills and Techniques used in performance)
- Discuss and Write the audience response and effect to your performance piece. How did they feel? What feedback did they give? Did your story, characters, intention for your piece come through to them?
- After performing your piece and if you could chose a different Performance Space, what would it be? Describe the performance space, what viewpoints would your audience have? How would a relationship between the actor and audience be created?

ICT:

- Learning programming is about trial and error, experimenting and trying different projects of your own. Try a project of your own or use one of the websites below to give you some inspiration. Attempt to put into practice the techniques learnt in your Computer Science lesson and extend what you can do by using online resources, there are loads available if you carry out a quick Google search.
- Python**

https://www.codeabbey.com/index/task_list

Maths: Summer Term

$$1 + \text{giraffe} \times \text{giraffe} = 5$$

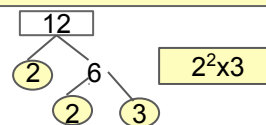
Rules of Indices

Allows expressions involving powers to be manipulated more efficiently than writing them out in full.

Keyword	Definition
Variable	A letter used to represent a number: $x + y$
Like Terms	Terms that have exactly the same variables & same powers
Formula	An equation linking 2 or more variables: $D = m/v$
Subject of an equation	Variable is on its own on one side of an equation: $x = 3+5$
Function $f(x)=2x$	A rule that links each input value with one output value
Identity $a \div 4 \equiv 0.25 \times a$	An equation that is true no matter what value is chosen for the variable.. Represented by \equiv
Expand $6(x+5)=6x+30$	Remove the brackets in an expression by multiplying
Factorise $x^2+5x = x(x+5)$	Find HCF of expression and rewrite inserting brackets (reverse of expanding)
Quadratic Expression	Contains a square term: x^2 as the highest power: $6x^2-7x+4$
Surd* $\sqrt{2}$ or $\sqrt{5}$	A square root which cannot be reduced to a whole number
Rationalise the denominator*	Simplify the denominator when using surds as fractions

Rule	If base is the same:	
1	Multiplication	Add powers $a^n \times a^m = a^{n+m}$
2	Brackets	Multiply powers $(a^n)^m = a^{n \times m}$
3	Division	Subtract powers $a^m \div a^n = a^{m-n}$
4	Power 0	Always= 1 $a^0 = 1$
5	Negative Power	$a^{-1} = 1/a$ $a^{-m} = 1/a^m$
6	$\frac{1}{2}$ Power	$a^{\frac{1}{2}} = \sqrt{a}$

Prime Factorisation



Find which prime numbers multiply together to make the original number.

Quadratic Expression

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

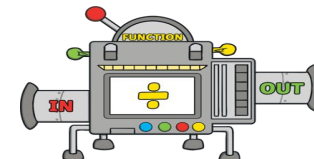
a, b, & c are constants,
x is an unknown variable.
a, cannot be a zero.

Simplifying Surds:

$$\begin{aligned}\sqrt{12} &= \sqrt{4 \times 3} \\ &= \sqrt{4} \times \sqrt{3} \\ &= 2\sqrt{3}\end{aligned}$$

$$\frac{2}{\sqrt{3}}$$

$f(x)=2x$
(function name) (input) (what to output)



Maths Summer Term



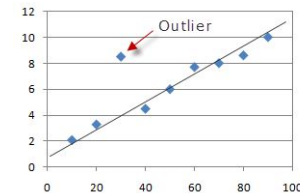
Keyword Definition

Population	The whole group of people/items that are to be investigated
Sample	A set / selection taken from the whole population
Frequency	The number of times each piece of data occurs
Outlier	A value that lies outside most of the other values
Discrete Data	Numerical data that can only take certain values. Data that can be counted
Continuous Data	Data which can take any values. Data that can be measured
Lower / Upper Quartile*	The middle value / median of the lower half $\frac{(n+1)}{4}$ upper half $\frac{3(n+1)}{4}$
Interquartile Range*	The difference between the upper quartile and the lower quartile
Histogram	A histogram is drawn like a bar chart, but may have bars of unequal width . It is the area of the bar that tells us the frequency in a histogram, not its height.

Cumulative Frequency

is the running total of the **frequencies**. The previous frequency / frequencies are added to the new frequency.

No. of Books	Frequency (F)	Cumulative Frequency (CF)
3	2	2
5	1	$2+1=3$
6	3	$3+3=6$
8	1	$6+1=7$

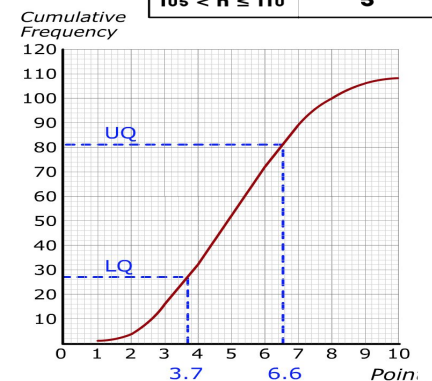


Histograms are typically used when the data is in **unequal groups also known as classes**

HEIGHT (CM)	CLASS WIDTH
$65 < h \leq 75$	10
$75 < h \leq 80$	5
$80 < h \leq 90$	10
$90 < h \leq 105$	15
$105 < h \leq 110$	5

Histogram

$$\text{frequency density} = \frac{\text{frequency}}{\text{class width}}$$



Range

the difference between the lowest and highest values

Subtract the smallest number from the largest number.
 $12 - 3 = 9$

Frequency = How Many

mean

The mean is the average of a set of numbers.

To find the mean:

- Add together all of the numbers in the set.
- Divide the total by how many numbers were added.

$$1 + 3 + 6 + 9 + 11 + 12 + 14 = 56 \Rightarrow 56 \div 7 = 8$$

The mean is 8.

median

The median is the middle number in a sequence.

To find the median:

- Organize the set of numbers from smallest to largest.
- Locate the middle number.

$$2, 3, 5, 6, 7, 8, 10, 13, 14$$

The median is 7.

mode

The mode is the number that occurs most frequently.

To find the mode:

- Organize the list of numbers from smallest to largest.
- Locate the number that appears in the list most often.

$$1, 2, 2, 3, 4, 4, 4, 5, 7, 7, 8$$

The mode is 4.

Estimated Mean from Group Data

$\frac{\text{midpoint} \times \text{frequency}}{\text{Frequency total}}$

Seconds	Midpoint x	Frequency f	Midpoint x Frequency fx
51 - 55	53	2	106
56 - 60	58	7	406
61 - 65	63	8	504
66 - 70	68	4	272
Totals:		21	1288