

Knowledge Organiser

YEAR
7

“ Practice creates
confidence,
confidence empowers you ”

Celebrating
Our Inspiring
Olympic
Achievements



SKY BROWN
OLYMPIC
SKATEBOARDER



CHARLOTTE WORTHINGTON
AND KYE WHYTE
OLYMPIC
BMXERS



TOM PIDCOCK
OLYMPIC
MOUNTAINBIKER



ADAM PEATY
OLYMPIC
SWIMMER



MAX WHITLOCK
OLYMPIC
GYMNAST

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

HANNAH MILLS
AND
EILIDH
MCINTYRE
OLYMPIC
SAILING
DUO



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?

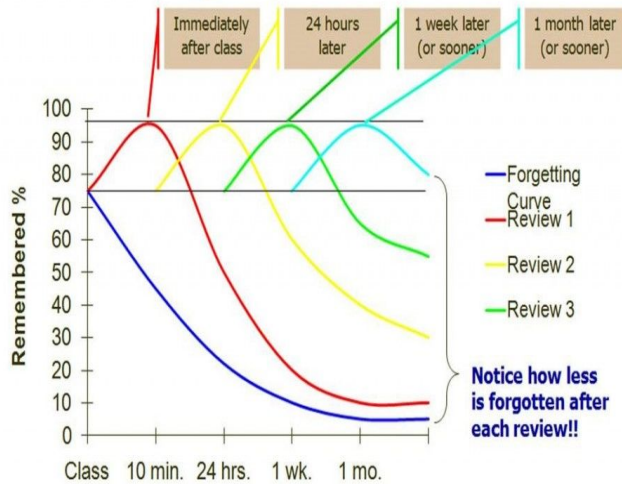
How will my teachers use them?

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](#)

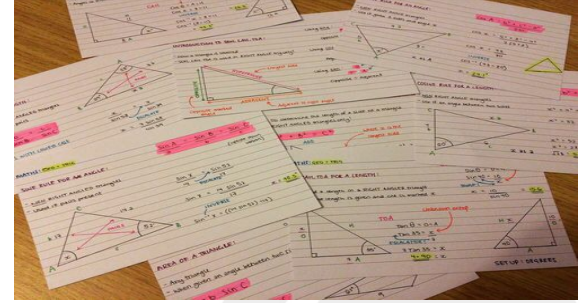
How we learn at Redmoor

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](#)

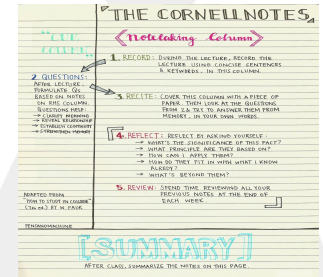
Try to come up with different ways to represent the information. For example: a timeline, a cartoon strip or a diagram of parts that work together.

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.

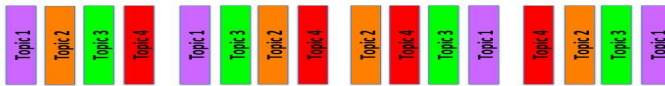
Eg. topic 1 cells, topic 2 digestive system

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.

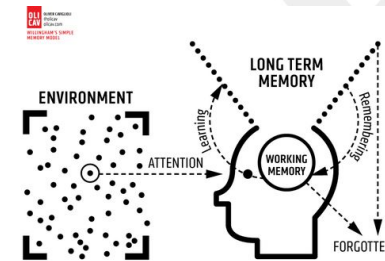
Mind maps help with memorisation of jey knowledge as it helps to organise information and begin to make links and connections to different pieces of information.

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/>



Contents Page

English	7-8
Science	9-10
MFL	11
History	12
Geography	13-14
ICT	15-16
Art/ Design	17-20
Drama	21-22
ME	23
Music	24
PE	25-26
Literacy	27
Maths	28-29



Equipment

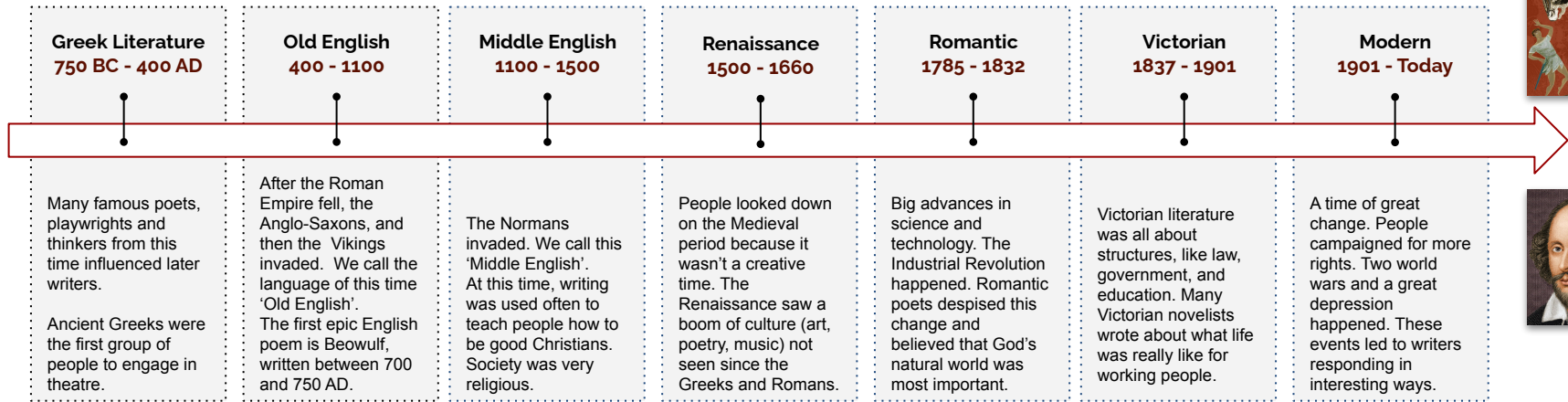
all students must have...



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

Redmoor English Department: Poetry Through the Ages



THE BIG QUESTIONS

1. How and why has the English Language changed over time?
2. What's the point of poetry?
3. How are words powerful?
4. Why do form and structure matter?

VOCABULARY BOOST

Word	Definition
Articulate	To express things clearly.
Create	To make something new, or invent something.
Epic	Used to describe events that happen over a long period and usually involve a lot of action and difficulty.
Hero	A person who is admired for having done something very brave or having achieved something great.
Intent	To have as your plan or purpose.
Literature	Written artistic works, especially those that are remembered over time.
Narrative	A story or description of a series of events.
Structure	The way something is arranged or organised.

BIG QUESTION: How are words powerful?

Alliteration	The same letter or sound at the start of words that are close together.
Imagery	Descriptive language which creates clear images.
Metaphor	A phrase which describes one thing as if it is something else.
Onomatopoeia	A word which, when said, sounds like the actual sound.
Personification	When you give an animal, thing or object qualities that only a human can have.
Simile	When you compare one thing to another using the words 'as' or 'like'.
Tone	An attitude of a writer toward a subject or an audience.

BIG QUESTION: Why do form and structure matter?

Stanza	A group of lines in a poem - rather like a paragraph in a story.
Rhyme scheme	The pattern of rhyme within a poem.
Rhyming couplet	A pair of lines that rhyme together.
Rhythm	This is the beat of the poem, made up of stressed and unstressed sounds.
Form	The type of poem. E.g. the sonnet form follows a certain set of rules.
Epic poem	A long poem telling a story of olden times.
Sonnet	A poem with 14 lines traditionally about love, usually ending with a rhyming couplet.

Redmoor English Department:

Introduction to Shakespeare & *A Midsummer Night's Dream*



Theseus



Hippolyta



Zeus



Hermia



Lysander



Helena



Demetrius



Bottom



Oberon



Titania



Puck

BIG QUESTION: What is the importance of context when studying Shakespeare?	
Who was Shakespeare?	<ul style="list-style-type: none"> Born in 1564 Lived in Stratford Upon Avon Playwright, actor and poet
When was he writing?	<ul style="list-style-type: none"> Tudor period 1485 to 1603
What did he write?	<ul style="list-style-type: none"> Plays: tragedies, comedies and histories Sonnets
What was a tragedy?	<ul style="list-style-type: none"> Play with tragic events Unhappy ending Downfall of a character
What was a comedy?	<ul style="list-style-type: none"> Amusing people with characters or incidents in a play
What was a history play?	<ul style="list-style-type: none"> Plays based on the chronicles on the history of England
What was a sonnet?	<ul style="list-style-type: none"> 14 line poem Based on love
The Globe Theatre	<ul style="list-style-type: none"> In London Shakespeare's plays were performed here Large, round, open air theatre
Women	<ul style="list-style-type: none"> Women were expected to remain at home and be honest, silent and obedient to her their husband's will They were seen as fragile and didn't have jobs Women could not act in Shakespeare's plays Shakespeare, controversially, presents women against the stereotype which is why his plays were so popular

BIG QUESTION: What is a play?	
Stage Directions	An instruction in the text of a play indicating the movement, position, or tone of an actor, or the sound effects and lighting.
Setting	A place or type of surrounding described in the stage directions of a play.
Act	A divide in a play that has action, climax and a resolution
Scene	A division in an act that breaks up events and time.
Dialogue	This was often poetic and dramatic. Dialogue was adapted to suit characters eg. if they were lower class they would speak in a colloquial manner.
Soliloquy	A solo speech in a play that a character speaks aloud on stage to his/herself or to people watching.
Aside	A convention involving the character talking to the audience, on the side.

BIG QUESTION: What are the conventions of a Shakespearean comedy?	
Boys performing female roles	Performing onstage was seen as unsuitable for women and therefore boys would perform female roles.
Misconception	Incorrect information and tricks that are seen as comical by the audience.
Disguise	Appearances of characters would be altered and exaggerated which the audience would find amusing.
Eavesdropping	Characters would purposely listen to conversations, informing the audience and other characters of details. This would help the plot evolve.
Play within a Play	Staging a play within a play was where characters would perform/rehearse a play of the narrative.

VOCABULARY BOOST	
Word	Definition
Comedy	Amusing and entertaining for the audience
Conflict	A conflict is a disagreement or 'clash'.
Patriarchal	A patriarchal society is where men have power and lead roles such as political leadership.
Supernatural	The supernatural refers to events that cannot be explained by science. They are beyond natural.
Tragedy	A play leading to an unhappy ending
Unrequited	This means one-sided. It is not felt the other person.

Early Modern English	
Word	Definition
Art	Are
Tis	It is
Shalt	Shall
Thee	You
Thine	Your
Thou	You
Twas	It was
Oft	Often

Enquiry processes & safety

BIG QUESTIONS:

1. How do scientists design investigations safely and how can they improve them?
2. How do scientists collect, present and analyse data?
3. How do scientists critique and justify evidence and opinions?
4. How are scientific theories established and accepted?

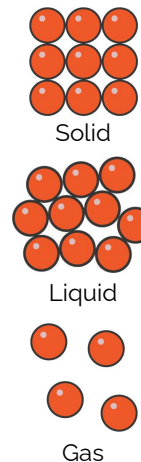
Fundamental knowledge:

Independent variable	Variable that is changed during the investigation.
Dependent variable	Variable of which the value is measured.
Control variable	Variables that are kept constant to ensure only the independent variable changes.
Validity	Suitability of the investigative procedure to answer the question being asked.
Precision	Measurements that have very little spread about the mean value.
Accuracy	A measurement result is considered accurate if it is judged to be close to the true value.
Repeatability	Repeating the investigation using the same method and equipment and obtains the same results.
Peer review	Evidence is reviewed by other scientists to check its validity.
Hypothesis	A proposal intended to explain certain facts or observations.
Anomalies	These are values in a set of results which are too different to be counted.

Redmoor Science Department

1. What are materials like inside?

Particle model	Theory used to explain the properties of substances.
State of matter	A form in which the particles of a substance exist (solid, liquid, gas or plasma).
Change of state	A physical change where a state of matter changes.
Solid	Particles have a regular arrangement, are in fixed positions (cannot move) and have no space between one another.
Liquid	Particles have a random arrangement, are moving and have little to no space between one another.
Gas	Particles have a random arrangement, are moving and have large spaces between one another.



3. How can mixtures be separated?

Boiling point	Temperature at which a substance changes state from liquid to gas.
Chromatography	Separates substances based on their solubility in a solvent.
Filtering	Separates an insoluble solute from a solvent.
Fractional distillation	Separates a mixture of many substances with different boiling points.
Insoluble	Unable to dissolve in a given solvent.
Soluble	Able to dissolve in a given solvent.
Simple distillation	Separates a solvent from a solution.
Evaporation	Change of state where particles at the surface of a liquid change into gas.

Particles & Mixtures

BIG QUESTIONS:

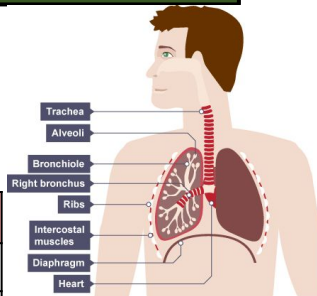
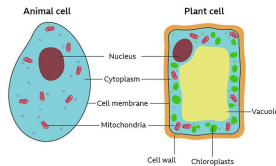
1. What are materials like inside?
2. What gives a material its properties?
3. How can mixtures be separated?

2. What gives a material its properties?

Pure substance	A substance made up of one element or one compound.
Element	A substance made up of only one type of atom.
Atom	The smallest particle of an element.
Mixture	Two or more substances that are not joined together. Can be elements, compounds, or both.
Compound	A substance formed with two or more atoms of different elements chemically bonded together.
Solute	The substance dissolved by a solvent.
Solvent	The liquid or gas in which the solute dissolves to form a solution.
Diffusion	Movement of particles from a higher concentration to a lower concentration.

Redmoor Science Department

Biology - Cells & Organs



BIG QUESTIONS:

1. What are we made of?
2. How do we move?
3. How does the body exchange gases with the environment?
4. Why do we have a digestive system?
5. How can drugs affect your body?

3. How does the body exchange gases with the environment?

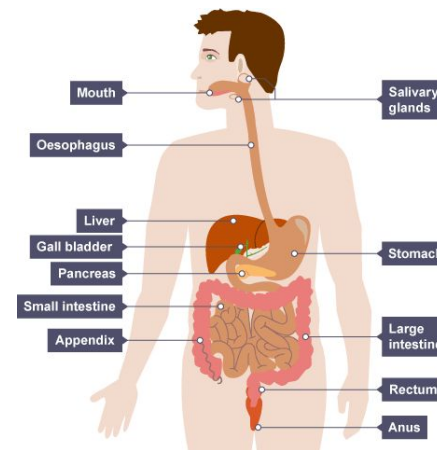
Respiratory system	Organ system where air is taken into and out of the body, gas exchange happens.
Breathing	(Ventilation) Process of moving air into and out of the lungs.
Oxygen	Gas breathed in and needed to carry out aerobic respiration.
Carbon dioxide	Waste gas produced by cells and breathed out.

1. How do we move?

Cell	Basic building block of all organisms.
Cell membrane	Surrounds the cell and controls what enters and leaves.
Cell wall	Surrounds the cell and gives it support.
Cytoplasm	Jelly-like substance where chemical reactions take place.
Nucleus	Controls activities of the cell and contains genetic information (DNA).
Vacuole	Contains cell sap.
Mitochondria	The site where aerobic respiration takes place.
Chloroplasts	Contain chlorophyll and carry out photosynthesis.
Diffusion	Movement of particles from a higher concentration to a lower concentration.
Unicellular	Organism made up of only one cell.

4. Why do we have a digestive system?

Digestive system	A group of organs that break down food from larger molecules to smaller ones.
Nutrients	Essential substances the body needs to carry out vital functions.
Balanced diet	Eating foods that contain nutrients in the correct amount.
Enzymes	Biological catalysts that speed up chemical reactions.



2. How do we move?

Tissue	Group of cells with a similar structure and function that work together to carry out a job.
Organ	Group of different tissues that work together to carry out a job.
Organ system	Group of different organs which work together to carry out a job.
Joints	Bones are linked together by ligaments. Joints allow the skeleton to move.
Muscles	Muscles are attached to bones by tendons. Muscles contract (shorten) to allow bones to move.
Antagonistic muscles	A pair of muscles that act on a joint. As one contracts the other relaxes.

5. How can drugs affect your body?

Drug	A substance that has an effect on the body.
Depressant	A drug that slows down messages in the brain and along nerves.
Stimulant	A drug that speeds up messages in the brain and along nerves.
Asthma	A condition that causes the airways of the respiratory system to become narrowed and filled with mucus.
Nicotine	The addictive substance found in tobacco smoke.
Alcohol	A depressant that is found in wines, spirits and beers. Also known as ethanol.



Sentence starter	PVS + Noun (2)	
<p>Dans ma famille, il y a (In my family, there is)</p> <p>Dans ma famille j'ai (In my family, I have)</p>	<p>ma mère (my mum) mon père (my dad) mon frère (my brother) ma soeur (my sister) mon grand-père (my granddad) ma grand-mère (my grandma)</p>	<p>mes grands-parents (my grandparents) mon oncle (my uncle) ma tante (my aunt) mon cousin (my cousin m) ma cousine (my cousin f)</p>
<p>Je suis fils/fille unique (I am an only child)</p> <p>Je n'ai pas de frères ni de soeurs (I don't have any brothers or sisters)</p>		

Verb (9)	Noun (10)	Adjective (11)
<p>J'ai (I have)</p> <p>Je voudrais (I would like)</p> <p>J'avais (I used to have)</p> <p>Je n'ai pas de (I don't have) you don't need to use un or une after this)</p>	<p>un cochon d'Inde (a guinea pig) un chat (a cat) un lapin (a rabbit) un chien (a dog) un poisson (a fish) un serpent (a snake) un oiseau (a bird) un hamster (a hamster) une souris (a mouse) une tortue (a tortoise) une araignée (a spider)</p>	<p>jaune/jaune (yellow) rouge/rouge (red) rose / rose (pink) bleu (e) (blue) vert (e) (green) noir (e) (black) gris (e) (grey) blanc (he) (white) violet (te) (purple) marron / marron (brown) orange / orange (orange)</p>

Phonics (1)
on/om [on]
aire/erre [air]
oi [wa]
eau [oh]
ui [we]
in/ain [an]
ou [oo]
eu [uh]

Opinion (3)	Noun (4)	Connective	Quality Vocab (5)	Verb (6)	Intensifieur (7)	Adjective (8)
<p>J'aime (I like)</p> <p>Je n'aime pas (I don't like)</p> <p>Je déteste (I hate)</p> <p>J'adore (I love)</p> <p>J'aime assez (I quite like)</p> <p>J'aime beaucoup (I really like)</p> <p>Je préfère (I prefer)</p> <p>Je ne supporte pas (I can't stand)</p>	<p>ma mère (my mum) mon père (my dad) mon frère (my brother) ma soeur (my sister) mon grand-père (my granddad) ma grand-mère (my grandma) mes grands-parents (my grandparents) mon oncle (my uncle) ma tante (my aunt) mon cousin (my cousin m) ma cousine (my cousin f)</p>	<p>car (because)</p> <p>parce que (because)</p>	<p>à mon avis (in my opinion)</p> <p>je pense que (I think that)</p> <p>je crois que (I believe that)</p> <p>selon moi (according to me)</p> <p>je trouve que (I find that)</p>	<p>il est (he is)</p> <p>elle est (she is)</p> <p>ils sont (they (m) are)</p> <p>elles sont (they (f) are)</p>	<p>très (very)</p> <p>trop (too)</p> <p>vraiment (really)</p> <p>extrêmement (extremely)</p> <p>assez (quite)</p> <p>un peu (a bit)</p> <p>complètement (completely)</p> <p>totalemt (totally)</p>	<p>bavard(e) (chatty) drôle (funny) égoïste (selfish) gentil(le) (kind) généreux/généreuse (generous) intelligent(e) (intelligent) optimiste (optimistic) paresseux/paresseuse (lazy) sportif/sportive (sporty) têtu(e) (stubborn) timide (shy) stricte (strict) travailleur/travailleuse (hardworking) patient(e) (patient)</p>

YR 7 HISTORY: NORMAN CONQUEST & CASTLES



HISTORICAL CONCEPTS

Assessment Objective 2:
Explaining

Assessment Objective 3:
Sources & Interpretations

Causation: why events happened.
Consequence: what happened as a result of an event
Change: what was different
Continuity: what stayed the same
Importance/significance: explaining why something mattered
Analytical Narrative: explaining how a series of events were connected
Evaluate: to come to a reasoned judgement

Inference: making judgements from sources
Message: what a source says
Purpose: why a source was created
Nature: the type of source
Origin: who created a source
Reliability: trustworthy
Bias/biased: one-sided
Utility: what a source is useful for
Interpretation: a view or opinion on the past

WHO SHOULD BE KING?

5th January 1066: Edward the Confessor dies, leaving no heir. **Heir:** The next in line to the throne.
Edgar the Atheling: Blood relative of Edward the Confessor. His father was promised the throne.
Harold Godwinson: An Englishman & a powerful leader. His sister was married to Edward the Confessor.
William of Normandy: A Norman and Duke of Normandy in France, cousin of Edward the Confessor.
Harald Hardrada: A Viking, King of Norway. Most feared warrior in Europe. Claimed he was promised the throne.
6th January 1066: Harold Godwinson is crowned King of England.
20 September 1066: Harald Hardrada invades England with more than 10,000 men in 200 longships.
25 September 1066: Harold Godwinson, defeats and kills Harald Hardrada at the Battle of Stamford Bridge.

CASTLES:

Motte and Bailey: A wooden castle built of top of a hill with a wooden fence around an area at the bottom.
Stone/Square Keep: A castle with a stone rectangular keep.
Concentric: A castle with two or more curtain walls.

CASTLE DEFENCE:

Keep: A tower built by wood or stone within the castle walls.
Moat: Ditches around the castle filled with water.
Round towers: A circular stone tower ranging in height.
Curtain Wall: A thick stone wall around the castle for protection,
Machicolation: Stone boxes that stuck out from the castle walls that had holes in for the floor for dropping hot oil or stones on attackers.
Arrow Slits: A thin hole in the castle wall to fire arrows through.
Hoarding: A covered wooden ledge around the top of the castle walls.

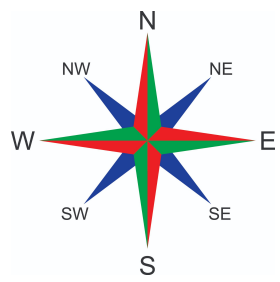
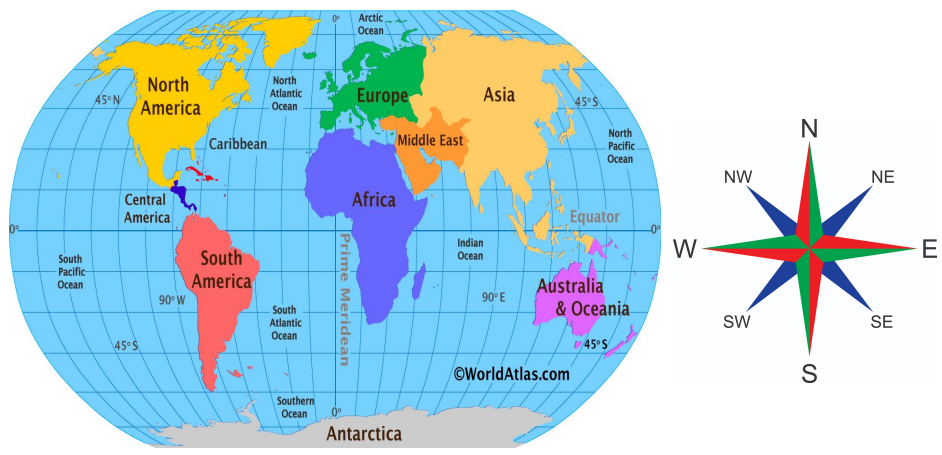
THE BATTLE OF HASTINGS:

27th September 1066: William Duke of Normandy invades in the south of England.
14 October 1066: The Battle of Hastings. William's army is victorious.
Fyrd: Local, untrained peasant farmers who fought for Godwinson's army,
Housecarls: Well-trained, experienced full-time fighters of the Godwinson's army.
Mercenaries: Soldiers who fought for William because he had paid them to. Included:
Infantry: Well trained, experienced full-time fighters.
Cavalry: Highly trained full-time fighters & rode large, trained warhorses.
Archers: Highly trained with a bow and arrow.
25th December 1066: William was crowned.

METHODS OF ATTACK:

Fire arrows: Arrows on fire.
Battering Ram: A heavy object, swung or rammed against a door/wall.
Belfry Tower: A covered ladder that provided shelter for attackers.
Catapult: A device to shoot objects over or through castle walls.
Siege: Surrounding the castle & cutting off vital supplies.
Mining: Digging under the castle walls, usually the corners.

Geography - Location, Location, Location!



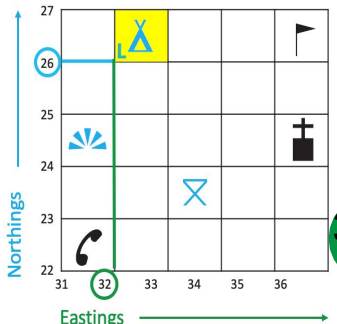
Types of Geography

- Human geography** The impact of people on the earth
- Physical geography** The natural world without people
- Environmental geography** Human interaction with nature



Key word	Definition
United Kingdom	The country that consists of England, Scotland, Wales, and Northern Ireland
Distance	the amount of space between two places
Scale	the relation between the real size of something and its size on a map, model, or diagram:
Contour	A line on a map that joins points of equal height or depth, in a way that shows high and low areas of land:
Topography	The surface features of the earth like hills, mountains, valleys etc..
Relief	The difference between the highest and lowest heights of an area.
Grid reference	A position on a map that has been divided into squares by numbered lines going from one side to the other and from top to bottom so that you can find places easily on it
Continent	One of the seven large land masses on the earth's surface, surrounded, or mainly surrounded, by sea and usually consisting of various countries:

4 Figure Grid References



The first two numbers give the eastings.

The second two numbers give the northings.

32 26

Along the corridor and up the stairs!

Our Island Home

INTRODUCTION TO THE UK



GREAT BRITAIN



Great Britain, the largest island, consists of three countries - England, Wales and Scotland. Ireland is split into two - Northern Ireland and the Republic of Ireland

WHAT IS THE UK

BRITISH ISLES



The **British Isles** consist of two large islands. These islands are called Britain and Ireland.

UNITED KINGDOM



The **UK** consists of the four countries of England, Wales, Scotland, and Northern Ireland. The Republic of Ireland is a

FLAGS



NORTHERN IRELAND



IRELAND



SCOTLAND



ENGLAND



WALES



EUROPEAN UNION



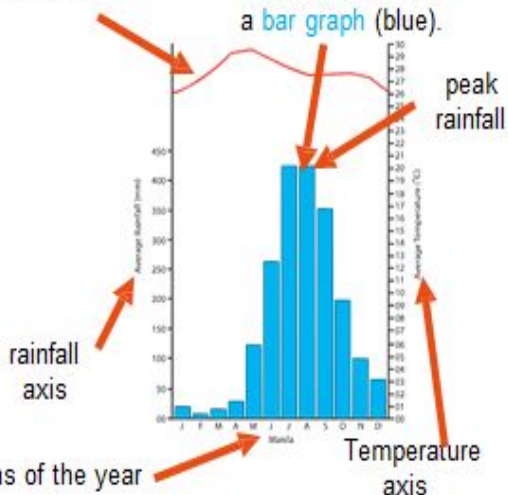
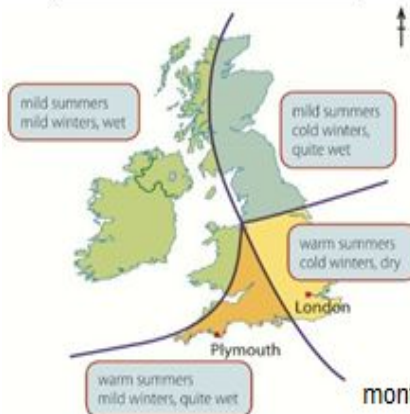
The **United Kingdom**, (UK), is located to the north-west of the continent of Europe. It has recently voted to leave a group of other countries known as the **European Union** or the EU for short.

Climate Graphs

Temperature is shown as a **line graph** (red).

Rainfall is shown as a **bar graph** (blue).

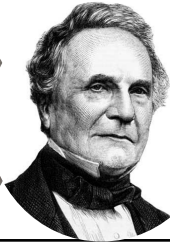
Climate Zones of the UK N



United Kingdom	A country containing 4 country's, England, Scotland, Wales and Northern Ireland
Climate graph	average rainfall and temperatures typically experienced in a particular location.
Physical features	Like oceans, seas, mountains and rivers are natural.
Climate	The long term pattern of weather in a particular area.
Great Britain	Part of the United Kingdom made up of England, Scotland, and Wales
Precipitation	any liquid or frozen water that forms in the atmosphere and falls back to the Earth. It comes in many forms, like rain, sleet, and snow.
Political map	show the geographic boundaries between governmental units such as countries, states, and counties.
Region	A large area, often part of a county such as the South West region of the UK.
County	Historical administrative area such as Leicestershire.
Nation	A group of people with a strong sense of identity.

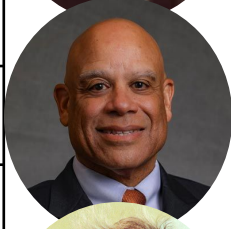
Year 7 Computing

Where it all began



Key people in the history of Computing

Ada Lovelace (1815-1852)	Ada is considered the first computer programmer. She was the first to realise that a computer could be programmed to follow a series of simple instructions to perform a calculation, long before computers even existed
Charles Babbage (1791-1871)	Developed plans for two different types of computer long before computers were invented. His first, the Difference Engine, was partially completed in the early 1830s.
Alan Turing (1912-1954)	During World War II, he developed a machine that helped break the German Enigma code which some said shortened the war by upto 2 years and saved an estimated 14 million lives. His work prepared the way for modern computers.
Joan Clarke (1917-1996)	A mathematician best known as being the only woman to work as a code-breaker at Bletchley Park during the Second World War. She worked closely with Alan Turing to break the German Enigma code and ensure that many lives were saved.
John Von Neumann (1903-1957)	Invented a key technology that is still the basis for how all computers work today. This technology is called the Von Neumann architecture.
Dorothy Vaughan (1910-2008)	Worked at NASA as a computer but soon understood that her job was under threat from new electronic computers. She lead the way for herself and other black women to learn to program by teaching herself and then her colleagues to ensure their jobs were safe. She became the first black female supervisor at NASA and her work helped to ensure that projects such as the moon landing were a success.
Katherine Johnson (1918-2020)	A mathematician whose calculations as a NASA employee were critical to the success of the first space flights. She checked the calculations of the computers, as they were new and known to have glitches, and worked out the flight paths for spacecraft for more than three decades
Margaret Hamilton (1936-present)	Worked for NASA on the Apollo spacecraft as head of Software Engineering. She wrote the code for the spacecraft that first landed on the moon
Mark Dean (1957-present)	Known by many as the inventor of the PC. He invented lots of the key technologies still used in modern PCs including the colour monitor (screen) and the first GigaHertz processor.
Sir Tim Berners Lee (1955-present)	Inventor of the World Wide Web. He invented the idea of web sites and web pages and wrote the code for the first web browser.



Year 7 Computing

Introducing Computers

Different Types of Computer

Desktop	<p>Embedded Devices</p> <p>Embedded devices are machines that aren't normally thought of as computers but have a computer chip in them to help them do their job better.</p> <p>Examples: Smartphone, Smart doorbell, Dishwasher, Digital Microwave, Smart Fridge, Car SatNav</p>
Laptop	
Tablet	
Server/ Supercomputer	
Games Console	

INPUT DEVICES



OUTPUT DEVICES



A Computer is made up of...

Hardware	Anything to do with the computer that can be touched. E.g. Disks, monitor, keyboards, motherboard.
Software	Code that makes the hardware do something useful.
Input device	A device that allows a person to put data into the computer. E.g. Mouse, keyboard.
Output device	A device that allows a person to get data from a computer. E.g. printer, speakers.
Storage device	A device that lets you save your data, even when the power is turned off on your computer.

Internal Parts of a Computer (Inside the box)

Motherboard	The main circuit board of a computer that holds all of the other parts together.
Processor/CPU	This carries out all the instructions in the computer.
Random Access Memory (RAM)	Short term storage for the computer. It stores things you haven't saved and apps you have open.
Hard Drive	A storage device that holds data permanently for when the computer is switched off.
Graphics Card	Is in charge of what appears on your screen. Any instructions or code to do with the video or picture on your screen is done by the graphics card.
Power Supply	Provides electricity to all of the internal parts of the computer

Year 7 Art - Visual Art Elements

Why are the Visual Art Elements the foundation of all artwork?

The Visual Elements of line, shape, tone, colour, pattern, texture and form are the building blocks of **composition** in art. When we analyse any drawing, painting, sculpture or design, we examine these different parts to see how they combine to create the overall effect of the artwork.

Line	Line is the beginning of all drawing. Line in an artwork can be used in many different ways. It can be used to create shape, pattern, form, structure, growth, depth, distance, rhythm, movement and a range of emotions.
Shape	Shape can be shown in a number of ways. Sometimes we can recognise the shapes, at other times, they can look like something we haven't seen before. This could be called ' abstract '.
Tone	Tone is the lightness or darkness of a color. Tone can be changed by using white or black to make a colour lighter or darker.
Colour	Colour is the visual element that has the strongest effect on our emotions. We use color to create the mood or atmosphere . For example, artwork that uses mainly reds and oranges, might make you feel angry.
Pattern	Pattern is made by repeating parts of the work. There are two basic types of pattern in art: Natural Pattern and Man-Made Pattern. The patterns could be made by repeating something in a certain way or completely random.
Texture	Texture is the surface effect used in art - the roughness or smoothness of the materials used to make the art.
Space	Space is an element of art by which positive and negative areas are defined or a sense of depth achieved in a work of art.

Visual Art Elements

What is colour theory?

The colour wheel helps us understand the relationships between colours.

The **primary colours** are red, yellow and blue. They cannot be made by mixing other colours together. All other colours can be mixed from red, yellow and blue.

Secondary colours are made by mixing equal amounts of primary colours together:

- Blue and red mixed together make purple
- Yellow and red mixed together make orange
- Blue and yellow mixed together make green

A **tertiary** colour is made by mixing equal amounts of a primary colour and a secondary colour together. There are six tertiary colours.

Harmonious colours sit beside each other on the colour wheel. These colours good for mixing together.

Complementary colours sit across from each other on the colour wheel. These are often referred to as opposite colours and even **contrasting** colours.

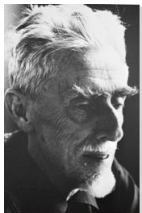
A **tint** is where an artist adds a colour to white to create a lighter version of the colour. An example of a tint is pink. Pink is a tint created by adding white to red.

A **shade** is where an artist adds black to a colour to darken it down.

What is the significance of Escher's work?

5 facts about the artist

1. Escher (1898-1972) is one of the world's most famous graphic artists. His art is enjoyed by millions of people all over the world.
2. His work features mathematical objects including impossible objects, reflection, symmetry and **perspective**.
3. Early in his career, he drew inspiration from nature, making studies of insects, landscapes, and plants
4. The prints Escher produced from 1941 on are his most well-known. He continued experimenting with repeating patterns and **geometric** mathematical concepts,
5. More recently, Escher's mind-bending visions have provided inspiration for the film Labyrinth 1986



Year 7 Art - Pop Art

Why was Andy Warhol successful?



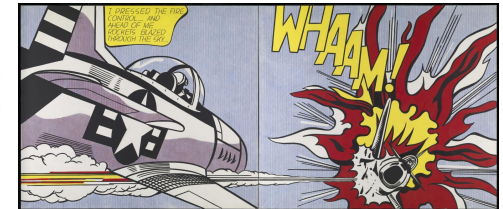
How did Pop Art influence culture?

Pop art is an art movement that started in the 1950s and was very popular in the 1960s in America and Britain. It was revolutionary for its use of bright and bold colours, particularly after the end of the war.

- Pop art was normally related to everyday objects or people that were popular at the time.
- It made use of **popular** imagery, such as comics, films, advertising and household objects.
- It often used bright colours such as red, blue and yellow, as well as images of celebrities or **fictional** characters from TV or comics.
- Another well known pop artist was Roy Lichtenstein. His paintings and prints looked just like comic strips, including his most well known work entitled Whaam!



Pop Art influence the way people lived their lives. They wanted to take risks, wear bright colours and be extraordinary!



How does tone impact art?

The lightness or darkness of something – this could be a shade, or how dark or light a colour appears. When we add white to a colour it's called a tint - this lightens the base colour.

When we add black to a colour it's called a shade - this darkens the base colour

Tone can be used to make something look **three dimensional** by blending tints and shades in specific areas.

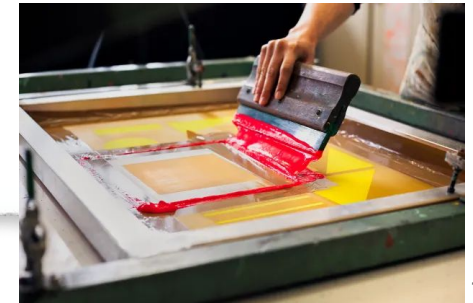
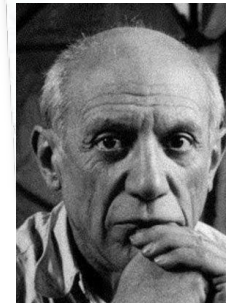
Shade

Base Colour

Tint



Creating tone in pop art was often created using screen printing. A method where ink is applied directly to the surface to be printed. The image to be printed is transferred to a very fine fabric (the screen) The parts that are non-printing areas are blocked off and the fabric becomes a stencil. The ink is wiped across the screen to pass through the unblocked areas and reach the underneath surface. For each colour to be printed a separate screen is prepared and the **process** is repeated. This is a process to **mass produce** an image.



Year 7 Design - Principles of Design

How can function follow form? Meet Haidée Drew

- For designers, **form** is the element that makes up our designs and **function** is the purpose of the design whether it is a sign giving directions or a book that entertains with a story.
- Haidée Drew is a London based Artist working across a range of areas from interiors and product to **sculpture**, and **Installation**.
- Haidée's work is informed by exploring the space between two and three **dimensions**, and the ideas created through the balance of form, colour, light and **illusion**.
- With a background in Silversmithing and Metalwork her ideas are driven by material as she combines craft and technology.
- Her fascination for **mastering** new techniques and exploring their possibilities is **echoed** through her projects.

What is Design and how does it impact our lives?

Design is EVERYWHERE. Almost everything that is made, is well thought out. Who is using the product? Why are they using it? Is it making their life better? From a tea-cup, lamp, or staircase, to the roof of a railway station or concert hall, a duvet cover, a company logo, or computer mouse, design, whether it is good or bad is a part of everyday life.

Aesthetic Design refers to the beauty of something. Products are usually designed in an artistic or **aesthetic** way. What does the product look like? Is it nice to look at? Is it interesting to look at? Does it fit a style or **genre**? If something is nice to look at, it is aesthetically pleasing.

Artistic Design is the **prettification** of objects, rather than the improvement of their function, performance or cost. Using the same **function** of a product, but changing the way it looks.

Design Thinking means the plan involved in creating something according to a set of requirements. Designers use many **techniques** to create products and solve problems. What are you aiming to achieve by designing that piece of work?

Designers rarely design a product that is brand new. Most ideas are based upon past or similar products or inspired by nature, artists or other designers or design movements.

A 'product **analysis**' allows designers to see what ideas already exist, these ideas are then analysed in detail. What works well and what doesn't? This then helps to inspire the work of the designer.

Today a number of companies and TV programs test a range of products and produce reviews on their performance for us as **consumers**, this encourages us to buy their products if they have a positive review. Word of mouth is extremely influential in design!

The Principles of Design



How do the principles of design impact aesthetics?

These are the standards or rules to be observed by Designers; they are used to successfully design product and concepts.

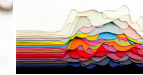
Balance

A distribution of visual weight. Symmetrical balance uses the same characteristics on either side (it looks the same.) Asymmetrical uses different but equally weighted features in the design.



Contrast

The arrangement of opposite elements. A feature may stand out against another. eg, light vs dark, smooth vs rough or small vs large.



Emphasis

Used to make certain parts stand out. It creates the center of interest or a focal point. Your eyes are drawn towards it first.



Movement

How the eye moves across the piece. Leading the attention from one aspect of the work to the other. This can also create an illusion.

Pattern and Rhythm

The repetition of, or alternation of elements creating interest.



Unity

Visually pleasing arrangement of all elements of design. Everything works together and looks like it fits.

Designing for Purpose

Why was Louise Nevelson's work monumental?

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.



"New York is my mirror"



How can designers execute their ideas?

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.

Inspiration or imitation, what's the difference?

Inspiration is the process of being mentally **stimulated** to do or feel something, especially to do something creative.

Inspiration gives us the energy to create new designs and to work hard to ensure they fit with our image or vision. It is when we are inspired that we produce our best work.

Inspiration assists us with brainstorming, mapping out new ideas and with bringing these new ideas to life.

In design, inspiration can be sourced from many places. Some examples are:

- A theme or topic eg. nature
- An era or time in history
- Looking at the work of others eg. Using a source like Pinterest
- Our surroundings and environment



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 *re/levo*, 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.



Tableau (x)	A Dramatic Picture. Frozen in time. (Needs to be with 2 or more people.)
Narration	To tell a story, information of what is happening to the audience
Mime	Acting out a moment, action, feeling without WORDS.
Split-staging	2 scenes performed at the same time on stage. (BUT the TECHNIQUE of this needs to be used!!!)
Physical Theatre	Use of the body & Movement to show a story, feeling, situation & object.
Structure & Plot	The story (Plot) Scene by scenes & Order of scenes (Structure)
Projection	To speak loudly in for the audience to hear your words.
Expression	Use of Facial Expression to SHOW how you feel.
Tone of Voice	The emotion HEARD in your voice of this character.
Gesture	Body or facial movements of a character during a play.
Body Language	To show your emotion & TOWARDS others in your body.
Wash/Flood	Covers the whole stage in light, allowing the audience to see everything.
Spotlight	A 'Spot'/Circle of Light in a small area- to focus on less actors.

Drama techniques, skills and lighting.

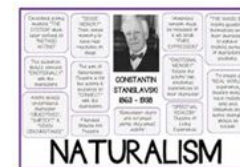
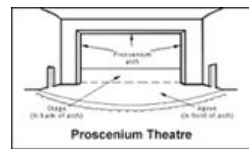
YEAR 7 DRAMA: INTRO TO DRAMA & UNIT 1: SHIPWRECKED KNOWLEDGE ORGANISER (TERM 1A- SEPT-OCT)

THEMES & CONTEXT:

- You will learn & understand these basic skills & techniques in Drama, through demonstrations, Drama performance work & different plays, musical clips.
- You can also have a look at some of these on YouTube & google search too.
- We will be applying these skills & techniques to different stories, events and script work that your teacher will give you. This will develop your ideas for Drama work & theatre.
- This term, we will need to lots of discussions of our performance ideas, with drawings of our set designs (what will be on stage), costume designs (what the actors will wear), prop design (what they will use on stage) & lighting design (the lights that fill the stage, to create different locations & atmosphere.)
- You will develop your characters skills; how to change your voice, expression of face, gesture, body language, to show your character from the stories & script work that your teacher will give you.

USE OF PRACTITIONERS, PERFORMANCE SPACES:

Performance Space: Proscenium Arch (An arch/frame is created & the audience have one view point.) This is an example of a type of staging, like the Hinckley Concordia.



Practitioner: Stanislavski= He created a method of Acting where you make your character as REAL as possible.
 "TO BE THE CHARACTER" not yourself. He wanted you to ask yourself questions 'What if I was this character, how would I feel?' 'What would I do?'
 As an actor, it is important to try to be your character & not yourself.

DRAMA KEYWORDS



YEAR 7 DRAMA: UNIT 2: GREEK THEATRE KNOWLEDGE ORGANISER (TERM 1B- OCT-DEC)



THEMES, FACTS & CONTEXT:

- The ancient Greek drama was a theatrical culture that started in ancient Greece from c. 700 BC. In Greek Theatre, they wore masks & spoke their words together in Unison.
- They used a lot of mime (actions without words) to show their story & characters.
- Tragedy (sadness) & comedy (humour) were two dramatic genres to start here in Greek Theatre.
- **Mask work** (wearing masks like the one below) & **Chorus work** (speaking together at the same time in a group) are used in Greek Theatre.
- **Amphitheatre**= Is the name of their Theatres.
- You will be researching & discussing your ideas of showing the Greek gods & Greek monsters in a story, in the style of Greek Theatre.
- You will use this research to show your storytelling of the gods, with skills of Greek Theatre (Mime, Movement, dialogue in Unison & mask work) and performance work.
- You will also develop your design skills for this unit, designing your Greek god masks and costume design for this performance.

USE OF PRACTITIONERS, PERFORMANCE SPACES:

During this unit, you will learn about other performance spaces, & through performance examples, you will know what they are like & why they are used.

1. **Corridor Staging** (Like a Catwalk!) Either side of the performance space.



2. Theatre of The Round= The audience are all the way round the staging.
You can have a look at these performance spaces by going onto YouTube to see some examples, & also through google search.

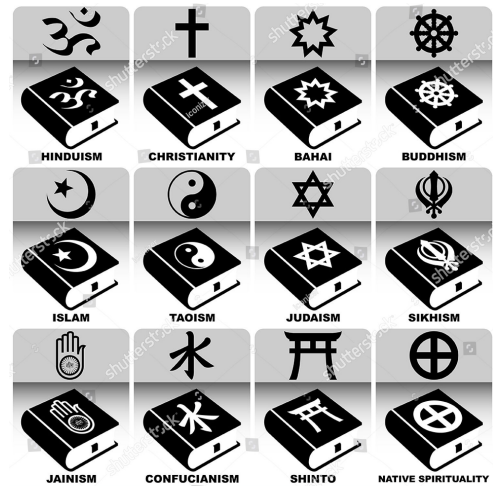
Practitioner: Steven Berkoff

Like Stanislavski with the first unit, Steven Berkoff is another practitioner who explored Drama & he looked at using the actors to create images, with as much Physical Theatre, Tableaux, Movement & Mime as possible.



Mime	Acting out a moment, action, feeling without WORDS.
Physical Theatre	Use of the body & Movement to show a story, feeling, situation & object.
Mask	For of theatre where actors' faces are covered with masks.
Chorus	In Greek Theatre- 1/more comments on the action and the plot.
Projection	To speak loudly in for the audience to hear you words.
Tone of Voice	The emotion HEARD in your voice of this character.
Gesture	Body or facial movements of a character during a play.
Body Language	To show your emotion & TOWARDS others in your body.
Blackout	The act of turning off (or fading out) stage lighting.
Lights Up	1. Sign that a performance has started. 2. To start a new scene.
Pace	The speed the dialogue is delivered to the audience.
Dialogue	The spoken text of a play-conversations between characters- is dialogue.
Genre	A specific type of Drama

MORALS AND ETHICS - THE ISLAND



- Morals - a lesson that can be derived from a story or experience.
- Ethics - principles that govern a person's behaviour.
- Absolute Morality - certain actions are right or wrong, regardless of the context of the act.
- Egoism - Doing what is in your own self interest.
- Altruism - Selflessness, doing what is in others interest.
- Utilitarianism - Greatest good for the greatest number of people.
- Moral Duty - Do what is right in the situation.
- Community - a social group of any size whose members are local to you.
- Rights - legal, social, ethical principles of freedom or entitlement.
- Responsibilities - something with one's power, control
- Sabbath - a day of religious observance, kept by Jews from Friday evening to Saturday Evening, and by most Christians on Sunday.
- Adultery - cheating on your husband or wife
- Rites of Passage - a ceremony that marks the transition from one phase of life to another.
- Symbols - is an iconic representation intended to represent a specific religion
- Naming Ceremony - informal occasion, gathering friends and family together to celebrate birth and naming of your child
- Festival - a day or period of celebration, typically for religious reasons.
- Holi - Also known as the 'festival of colours', is a spring festival celebrated all across India.
- Caste - the class you are born into that will determined jobs you can do.
- Pilgrimage - a journey or search of moral or spiritual significance.
- Vatican City - Roman Catholic Pilgrimage site. Home to the Pope.
- Lourdes - Pilgrimage site in France known for its healing.
- Mecca - a place Muslims visit once in their lifetime.
- Torah - The Jewish Holy Book
- Bible - The christian Holy Book
- Qur'an - The muslim Holy Book

rites of passage

A rite of passage is an **event or occasion** involving **rituals** that marks a **change in a person's social status and commitments**. They can also be referred to as ceremonies of commitment. Rites of passage are often ceremonies surrounding events such as childbirth, coming of age, weddings, and death.

WHAT IS THE BIBLE?

- The Bible is not a single book – it is a collection of different books.
- It was collected together over hundreds of years.
- It contains a huge variety of different types of writing.
- The Christian Bible is in two parts – the Old Testament, containing books that were used by the Jewish Religion, and the New Testament, which contains writings by the first Christians.
- It is used for personal reading and public worship.
- It has been translated into every written language ever used.

PILGRIMAGE

- A pilgrimage is a journey to a place regarded as holy for the believer. This journey may be made alone or with others.
- The believer makes a physical journey but people feel a sense of spirituality and that they are closer to God. The places of pilgrimage are usually linked to Jesus or a saint or to events of religious significance or to healings that are seen to be miraculous (inexplicable by science).
- The pilgrimage gives many opportunities for prayer or worship, and is itself an act of worship as believers show devotion to God by choosing to go.

Key terms	
Notation	The symbols used in written music
Ensemble	A group of musicians who perform together
Intonation	Accuracy of pitch in playing an instrument or singing
Pitch	The highness or lowness of a sound / note
Duration	The length of sounds and silence in music



Note Values - Duration

	1 semibreve (whole note)
	2 minims (half notes)
	4 crotchets (quarter notes)
	8 quavers (eighth notes)
	16 semiquavers (16th notes)

Elements of Music

- **Tempo** - The speed of the music
- **Timbre** - The unique quality of a sound made by a voice or instrument.
- **Texture** - How layers of sound in a piece of music interact
- **Dynamics** - How quiet or loud the music is played
- **Structure** - The order that different sections are played in
- **Tonality** - refers to the overall sound of a piece
- **Harmony** - Two or more notes played at the same time



Reading Music Treble Clef - Pitch Notation

Every Green Bus Drives Fast

F A C E



BandLab terms:

- 1) **Loop** - a repeated melodic or rhythmic pattern
- 2) **Drum machine** - a digital way of creating the beats for a track
- 3) **Backbeat** - emphasising weak beats 2 and 4 in a drum track
- 4) **Track** - one instrumental layer in a technology piece
- 5) **Bpm** - beats per minute - the tempo of a piece
- 6) **Balanced phrasing** - phrases of equal length
- 7) **DAW** - Digital Audio Workstation - a place to mix your tracks
- 8) **Stereo** - a full sound as you would hear through both ears
- 9) **Key** - the tonality of the music
- 10) **Metronome** - a beat which keeps you in time

BIG question: How should we listen to music?

Families of the Orchestra
STRINGS, WOODWIND, BRASS, PERCUSSION

COMPONENTS OF FITNESS

Cardiovascular Fitness – being able to exercise the whole body for long periods of time

Agility – Change direction quickly with control

Speed – the rate in which you perform a movement

Strength – the amount of force a muscle can generate

Power – performing a forceful movement as quickly as possible

Coordination – moving two or more body parts together

Muscular Endurance - repeatedly using the same muscles without them getting tired.

Balance - maintaining your body stable when static or moving.

Flexibility - the range of movement at a joint.

Body Composition - percentage of bone, muscle and fat.

Reaction time - ability of your body to reaction to a stimulus.

FITNESS TESTS

CAN YOU LINK THE FITNESS TEST TO THE COMPONENTS OF FITNESS BEING TESTED?

- 12 Minute Cooper Run
- Bleep Test
- 1 Minute Press Up Test
- 1 Minute Sit Up Test
- Illinois Agility Test
- Ruler Drop Test
- Hand Grip Test
- Standing Broad Jump
- Vertical Jump
- 30 Meter Sprint
- BMI
- Sit and Reach Test
- Alternate Hand Wall Throw Test
- Standing Stork Test



METHODS OF TRAINING

Continuous - working with no rest over a long period of time

Circuit - a series of stations to improve specific components of fitness

YEAR 7 PE - NETBALL

KEY TERMS

Court – The area netball is played on.

Goal Third – The 2 areas of the court including the shooting circle.

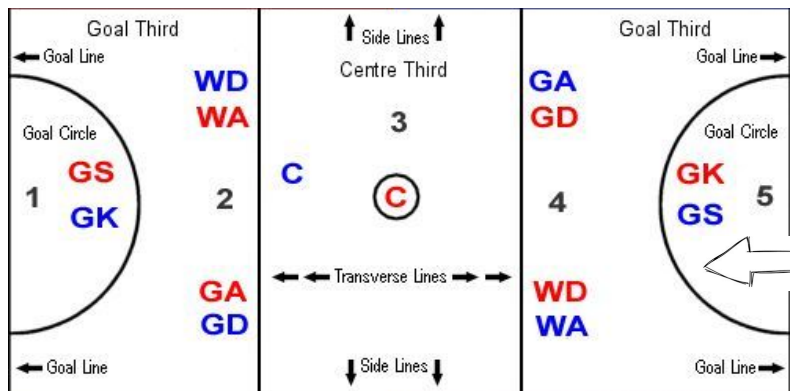
Centre Third – The area in the middle including the centre circle.

Umpire – The name of the person who officiates the match.

Other areas of the court: back line, side line, centre circle, shooting semi-circle.

Intercept / Interception – Gaining the ball by getting in between a pass from the opposing team.

Possession – Keeping the ball.



A netball match lasts for 4 x 15 minute quarters = 1 hour

POSITIONS – BLUE TEAM

How many players on 1 team?

Where can they go?

Defence:

GK – 1 & 2
GD – 1, 2 & 3
WD – 2 & 3

Attack:

GS – 4 & 5
GA – 3, 4 & 5
WA – 3 & 4

C – 2, 3 & 4

Which areas can the RED team go into?



RULES AND REGULATIONS

Rules resulting in a FREE PASS (Involves 1 player):

FOOTWORK – A player must not move their landing foot before passing the ball.

OFFSIDE – A player must stay in their playing area. See diagram above.

HELD BALL - The ball can only be held for 3 seconds by a player.

REPLAYING – A player must not bounce the ball to themselves when playing.

Rules resulting in a PENALTY PASS (Involves 2 players):

CONTACT – A player must not touch another player whilst on court.

OBSTRUCTION – Any player must stand 1 meter away from the player with the ball.

SKILLS IN ISOLATION

Passing – chest, shoulder, bounce.

Handling – Ball control.

Catching – 1 and 2 handed.

Footwork – landings, pivot.

Evasion – holding space, dodging.

Shooting – 1 or 2 handed.

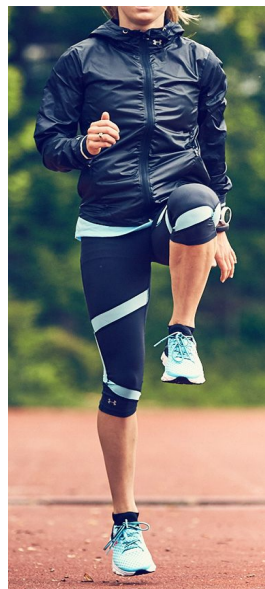
Defending – stage 1 man to man, stage 2 defend the pass.



HOW TO WARM UP FOR NETBALL AND OTHER SPORTS

A good warm up must consist of 3 parts;

- 1 – **Pulse raising** activity e.g. jogging
- 2 – **Stretches** (dynamic and static)
- 3 – **Skills practice** e.g. passing



- ★ Which players can shoot in netball?
- ★ Which components of fitness do you need for netball?

Literacy

“READING FORCES YOU
TO BE QUIET IN A
WORLD THAT NO LONGER
MAKES PLACE FOR THAT.”

John Green

Questions to become an active reader

Which sentences could help you to sum up the entire passage?

What do you think is going to happen next?

What did you think about as you read?

What else do you know about the topic?

What questions do you have about the book?

Which words do you not know or understand?

What clues from the passage help you to remember what has already happened?

How could you describe what you have just read to someone else?

Key Vocabulary 1

Non-fiction	An informative book that is true and based on real events and facts.
Fiction	Books that are written from the imagination and not based on facts.
Prologue	A section at the start of the book. Usually establishes the setting, and gives background details to the main story.
Epilogue	A section at the end of a book that serves as a conclusion to what has happened in the book.
Blurb	A short description of a book, usually found on the back cover.
Preface	An introduction to a book written by the author, but it is not part of the story.
Author	A writer of a book, article, or document.

Key Vocabulary 2

Setting	The time and place of the story.
Context	The background and environment within which the author lived and worked.
Plot	The sequence of events that make up a story.
Plot Twist	An unexpected turn of events in a story.
Protagonist	The main character, or one of the major characters in a novel.
Antagonist	The character in a story who is presented as the main opponent of the protagonist.



Key Vocabulary 3

Hook	The opening of a story that grabs the reader's attention and 'hooks' them in.
Cliffhanger	When a story or plot line ends suddenly or a large plot twist occurs and is left unresolved.
Dialogue	A conversation between two or more people as a feature of a book, play, or film.
Empathise	To put yourself in the shoes of a character and understand how they feel.
Predict	Based on what has already happened, making assumptions about what will happen next.
Deduce	What you can understand based on the evidence in the text.
Skim	To read over the text quickly to get the main idea of what is going on.
Critic	A person who makes or gives a judgment of the value, worth, or quality of a book or text.
Recommend	To suggest that a book would be good or suitable for a particular person.

MATHS: Block 1 - Number Sense

Keyword	Definition
Rounding	Making a number simpler, but keeping its value close to what it was. The result is less accurate, but easier to use: e.g.73 rounded to 70
Integer	Whole number : 1, 79,-110
Positive Integers	Any whole number greater than 0: 6,35,1001
Negative Integers	Any whole number less than 0: -5, -101, -1212
Inverse operations	Doing the opposite , reversing the operation used
Sum	Adding, finding the total
Product	Multiplying. The product of 2 & 3 is 6 (2x3=6)
HCF	The highest common factor (HCF) of two whole numbers is the largest whole number which is a factor of both numbers
LCM	The lowest common multiple (LCM) is the lowest/first number that appears in both times tables.
Square Numbers	When a number has been multiplied by itself, the answer is a square number. $3 \times 3 = 9$
Indices & Roots	The small numbers above a number are called powers or indices 3^2 7^4 The opposite of powers and indices are roots: square root $\sqrt{\quad}$ cube root $\sqrt[3]{\quad}$
Perimeter	The perimeter is the length around the outside/edge of a shape.
Area	The area is the number of square units inside a shape.

Metric Units		
milli = thousandth	10mm = 1cm	10ml = 1 centilitre (cl)
centi = hundredth	100cm = 1m	1000ml = 1 litre (l)
deci = tenth	10cm = 0.1m	10dl = 1 litre (l)
kilo = thousand	1000m = 1km	1000g = 1kilogram (kg)

Inverse Operations	
+	-
-	+
x	÷
÷	x
x^2	\sqrt{x}

BIDMAS

(B) (brackets)
I² indices ²
D ÷ division ÷
M x multiplication x
A + addition +
S - subtraction -

any order

any order

any order

Area of Triangle

$\frac{1}{2}$ base x (perpendicular) height

Area of Trapezium

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

Area of Parallelogram

base x (perpendicular) height
same as rectangle

Addition and Subtraction Integer Rule

When 2 signs are next to each other when adding/subtracting

ADD $10 - -4 = 14$

SUBTRACT $10 + -4 = 6$

Same Signs - POSITIVE
Different Signs - NEGATIVE

Multiplying and Dividing Integer Rule

When multiplying or dividing:

Same Signs - POSITIVE
Different Signs - NEGATIVE

Recognise the Inequality Symbols




Greater than $>$ Greater than or equal to \geq

Less than $<$ Less than or equal to \leq

number this side is larger greater than $>$ number this side is smaller less than $<$

Not equal to \neq

DATA

Keyword	Definition
Bar Chart 	The bars in a bar chart can be horizontal or vertical. The bars should not touch . Bar Charts are used for discrete* data
Pie Chart 	Shows amounts of data as portions of a circle. The whole circle, 360° represents the whole amount
Discrete Data	Data that can be counted e.g. # of 
Continuous Data	Data that can be measured eg. cm, kg, time
Open-ended	Answers can be anything
Closed-ended	Answers from several given options
Primary Data	Data that you collect yourself from a survey or experiment
Secondary Data	Data that you look up, perhaps in a book or on the internet
Range	The difference between the lowest and highest values
Mean	The average from a set of numbers. Add together all of the numbers in the set and divide the total by how many numbers were added.
Median	The middle number in a sequence
Mode	The number that occurs most frequently

Grammar of Algebra

Keyword	Definition
Algebra	the mathematics of unknown numbers. It uses letters in place of an unknown number. Each different letter used means it is representing a different value /number..
Variable	A letter to represent a number you don't yet know
Formula	A fact or rule that uses mathematical symbols / letters. volume = length x width x height $v = l \times w \times h$
Substitution	Replace a value into an expression (or formula) to find its value

$1x = x$
No need to write the 1!

expression
 $5x - 8 = 17$
 terms

An **expression** is part of a sum without the = sign
terms are each part of the sum

Equation has an = sign (can be solved)

Collecting Like Terms

$$\underline{4a} + \underline{5} + \underline{2a} - \underline{3}$$

$$= 6a + 2$$

Collect all the terms with the same letters into one group & all numbers into another group & simplify

Rules of Algebra

Don't write a x sign for multiplying - just leave it out $5a$ not $5 \times a$
 - you don't want to confuse it with x

Combined letters should be written alphabetically ab not ba

Don't use a ÷ sign, use a fraction dividing line
 not $x \div 2$ but $\frac{x}{2}$

Always write numbers before letters $2xy$ not $yx2$

NOTE: $a+a = 2a$ $a \times a = a^2$
 $a+a+a+b = 3a+b$ $a^3b = a \times a \times a \times b$