



Year 8 Knowledge Organiser HT3

Knowledge is Power

Name: _____

Form: _____

Contents Page

Subject	Page
English	1
Maths	2
Science	3
History	4
Geography	5
Spanish	6
PE	8
Performing Arts	12
Computing	13
Art	14
Cooking and Nutrition	15
Music	16

Week 1 - Context

Mary Wollestencraft	British philosopher and early feminist. Mother of Mary Shelley.
Mary Shelley	Teenage author of <i>Frankenstein</i> .
Percy Shelley	Poet, political writer and husband of Mary Shelley.
Romanticism	An artistic movement focused on emotion and individualism as well as the glorification of nature.
Galvanism	A scientific theory that thought electricity was the source of life. Named after scientist Luigi Galvani.

Week 2 – Characters in Othello

Dr Victor Frankenstein	Protagonist of the novel and creator of The Creature,
The Creature	A creature manufactured and brought to life by Victor Frankenstein,
Captain Walton	A ship's captain trying to find his way to Asia via the Northern Passage who finds Victor on the ice.
Henry Clerval	Victor's childhood friend, obsessed with literature to contrast with Victor's obsession with science,
Elizabeth Lavenza	Victor's adopted sister and fiancée.

Week 3 – Geography of the novel

Term	Definition
Northern Passage	A route to Asia from Europe via waters north of Russia that unfreeze briefly in summer.
St Petersburg	A city in North West Russia close to the entrance of the Northern passage.
Geneva	A large city in Switzerland where the Frankenstein family live.
Ingolstadt	A German city close to the Swiss border with a well-known university.
Orkney Islands	A group of islands off the north coast of Scotland.

Week 4 - Key Vocabulary

Pathetic Fallacy	When the author uses the weather to reflect the atmosphere or mood of the book.
Foreshadowing	When an author gives clues and hints to future events in a story.
Symbolism	The use of symbols to represent ideas or qualities.
Metaphor	A description of something by comparison to something with similar qualities to highlight those qualities.

Week 5 - Themes

Ambition	Both Walton and Frankenstein are driven to ruin by their desire for greatness.
Science versus Religion	Shelley was deeply religious but married to a famous atheist. The novel discusses the clash between science and a religious society.
Isolation and prejudice	Despite his intelligence the creature is treated badly by all due to his appearance.
Revenge	The creature's behavior seems mostly driven by his desire for revenge against humanity.
Romanticism and nature	The novel frequently uses nature to represent the sublime as well as showing the perils of playing at creation.

Week 6 - Steps of an Analytical Paragraph

1. Point – create a point from the evidence, which answers the question directly and has an adjective
2. Evidence – select a piece of evidence from the text which helps you to answer the question and is relevant and interesting
3. Explain – explain how your evidence is relevant to the question and helps support your point
4. Device – identify a language device, dramatic technique or word type that is used in your quote
6. Analysis – zoom in on a key words and make relevant connotations
7. Link – link back to the context of your play and the original question

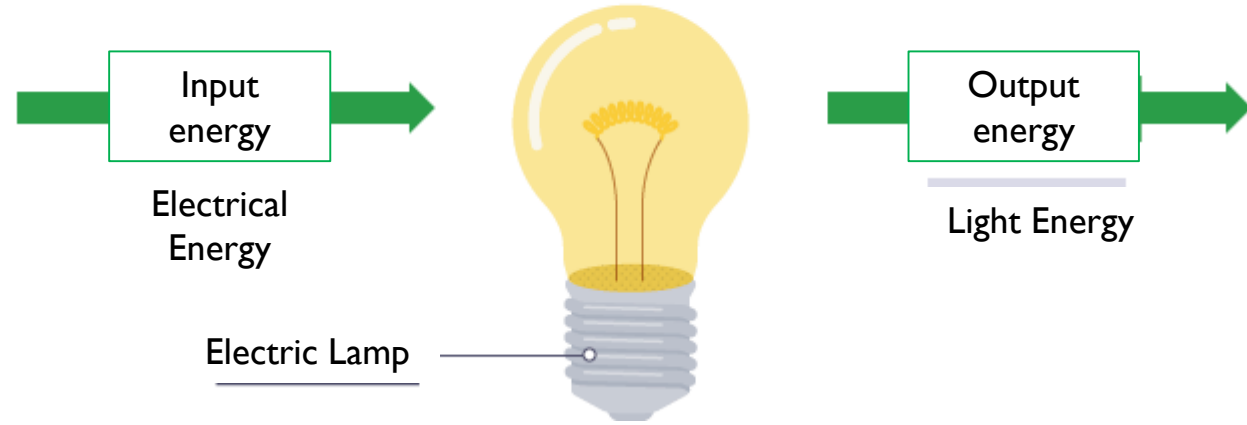
Transformations	
Reflection	When a shape is flipped (reflected) in a mirror line
Rotation	When a shape is turned (rotated) around a centre of rotation by a given direction (clockwise/anticlockwise) and angle (90° or 180°)
Enlargement	When a shape is made bigger or smaller. They must have a scale factor and they may involve a centre of enlargement.
Translation	When a shape is moved by a column vector
Column vector	<p>A column vector is written in this format:</p> $\begin{pmatrix} x \\ y \end{pmatrix}$ <p>x = right (+) and left (-) movement y = up (+) and down (-) movement</p>

Representing Data	
Discrete data	Data that can only take certain values. These values do not have to be whole numbers, but they are fixed values. e.g. shoe size, number of goals
Continuous data	Data that is measured and can take any value e.g. Height, time, temperature
Frequency	How many times an event occurs
Outlier	A point that is far away from the rest, meaning it does not fit the trend
Line of best fit	A straight line that minimizes the distance between it and some data. It is also known as a trend line.
Scatter graph	Scatter graphs are a tool that we use to display data with two variables.
Pie chart	A pie chart is a type of graph representing data in a circular form, with each slice of the circle representing a fraction or proportionate part of the whole.
Frequency tree	A frequency tree can be used to record and organise information given as frequencies. This can then be used to calculate probabilities.
Venn diagram	A Venn diagram is made up of two large circles that intersect with each other to form a space in the middle.

Science

Key Word	Definition
Energy	The sum of the forces acting upon an object (overall force)
Kinetic Energy	The energy stored when an object is moving
Gravitational Potential Energy	The energy stored when an object is lifted above the ground
Elastic Potential Energy	The energy stored when an object stretches
Thermal Energy	The energy stored when an object heats up
Chemical Energy	The energy stored in chemical bonds
Useful Energy	The energy transferred that the object is meant to be used for e.g. light transferred from a phone
Wasted Energy	The energy transferred that the object is not meant to be used for e.g. heat transferred from a phone
Efficiency	The useful energy transferred in a device out of the total energy transferred
Power	The energy transferred per second
Dissipated	The energy transferred to the surroundings
Energy transfer diagram	A diagram to show the input and output energies, including the useful and wasted energy
Insulation	Reducing the thermal energy transfers in an object

Energy Transfers



Biology Key Word	Definition
Antibiotic	A chemical that kills bacteria
Vaccination	A dead or weakened pathogen
Pathogen	A microorganism that causes harm
Antibody	Proteins made by white blood cells that are specific to an infection. They help to destroy the pathogen.

Drug	Type	Effects on Health
Alcohol	Depressant	Short term effects include hangovers, while long term effects include liver disease
Caffeine	Stimulant	Too much causes a lack of disease
Paracetamol	Painkiller	Reduces pain without addressing the cause

History

Key Words

Constitutional	A peaceful, legal way of campaigning, often using recognised 'political' methods such as petitions.
Picket	To stand outside or near a workplace and try to persuade other workers not to enter the workplace.
Hunger Strike	When prisoners (usually) refuse to eat as an act of protest
Manifesto	A public declaration or proclamation, stating the aims and methods of a campaign group.
Militant	Aggressive and sometimes violent.
Martyr	Person who dies for their cause and becomes a symbol for a movement or cause.
Pacifist	Person who opposes war and violence.
Petition	Request to do or change something, normally presented to government; people sign one to show how much support the request has.
Propaganda	Literature that is used to promote a point of view; normally used by the government during war.
Suffrage	The right to vote in political elections.
Pamphlet	Small booklet containing information; important during the English Civil War for spreading ideas and propaganda.

Key Events/ Groups

NUWSS	The National Union of Women's Suffrage Societies (NUWSS) was formed in 1897 and brought together many smaller suffrage organisations. The NUWSS's method was non-confrontational and constitutional
WSPU	A campaigner for women's suffrage who believes in constitutional methods of campaigning.
Suffragette	A campaigner for women's suffrage willing to undertake militant action or to break the law.
Suffragist	A campaigner for women's suffrage who believes in constitutional methods of campaigning.
Cat and Mouse Act	Permitted suffragettes on hunger strike to be released but re-arrested once well again to complete their sentences.
Representation of the People Act, 1918	1918, granted the vote to women over 30 who were also householders, the wives of householders, owners of property worth over £5 or university graduates. The Act also granted the franchise to all men over the age of 21.
Equal Franchise Act, 1928	Women over 21 were able to vote and women finally achieved the same voting rights as men. This act increased the number of women eligible to vote to 15 million.

Key Word	Definition
Environmental concern	A serious threat to human beings and their environment is the continuous and accelerating overuse and destruction of natural
Global warming	the long-term warming of the planet's overall temperature
Climate change	to long-term shifts in temperatures and weather patterns.
Greenhouse effect	a process that occurs when gases in Earth's atmosphere trap the Sun's heat
Green house gas	a gas that contributes to the greenhouse effect by absorbing infrared radiation (suns heat)
Fossil fuel	a natural fuel such as coal or gas, formed in the geological past from the remains of living organisms
Climate refugee	a person who has been forced to leave their home as a result of the effects of climate change on their environment.
Drought	a prolonged period of abnormally low rainfall, leading to a shortage of water.
Coral bleaching	When water is too warm, corals will reject the algae living in their tissues causing the coral to turn completely white
Mitigation	the action of reducing the severity, seriousness, or painfulness of something
Deforestation	the action of clearing a wide area of trees
Commercial farming	when crops and animals are produced to sell at market for a profit on a larger scale
Subsistence farming	the practice of growing crops and raising livestock sufficient only for one's own use
Selective logging	the practice of cutting down a few species of trees while leaving the rest intact and unharmed
Invasive alien species	species usually introduced by humans by mistake or deliberately
Native species	a plant or animal living in an area/ ecosystem without any human intervention.
Endangered species	is a species of animal that only has a small number left on the planet.
Extinction	the complete disappearance of a species from Earth.
NGO	Non Governmental Organisation: are not for profit charities that deal with many different issues

Spanish

Spanish	English
El móvil	Phone
El ordenador	Computer
El portátil	laptop
La app	App
La tableta	Tablet
El videojuego	Videogame
La cámara	Camera
la televisión	Tv
La red social	Social network
El internet	Internet
El mensaje	Message
el usuario	User
Sacar fotos	To take potos
Chatear	To chat online
Mandar mensajes	To send messages
Jugar	To play
Leer e-books	To read e-books

Spanish	English
Descargar	To download
Ver	To watch
Compartir	To share
subir	To upload
Odio	I hate
Prefiero	I prefer
(no) me gusta	I (don't) like
Me interesa(n)	I'm interested in
La telerrealidad	Reality tv
El concurso	Quiz/game show
Una comedia	Comedy
Una telenovela	Soap opera
El telediario	The news
El documental	Documentary
El programa de deporte	Sports programme
El programa de música	Music programme
Una serie policíaca	A detective series

Spanish

Spanish	English
Más que	More... than
Menos que	Less... than
Tan...como	As...as
aburrido	Boring
apropiado	Appropriate
Complicado	Complicated
Decepcionante	Disappointing
Educativo	Educational
Emocionante	Exciting
extraño	Strange
gracioso	Funny
interesante	Interesting
Lento	Slow
Peor	Worse
Mejor	Better
Caro	Expensive
barato	cheap

Spanish	English
Fácil	Easy
Peligroso	Dangerous
Grátis	Free
Popular	Popular
Seguro	Safe
El riesgo	Risk
El peligro	Danger
(no) se debe	You must (not)
Hay que	You must
Es importante	It is important
El joven	Young person

Health and Fitness

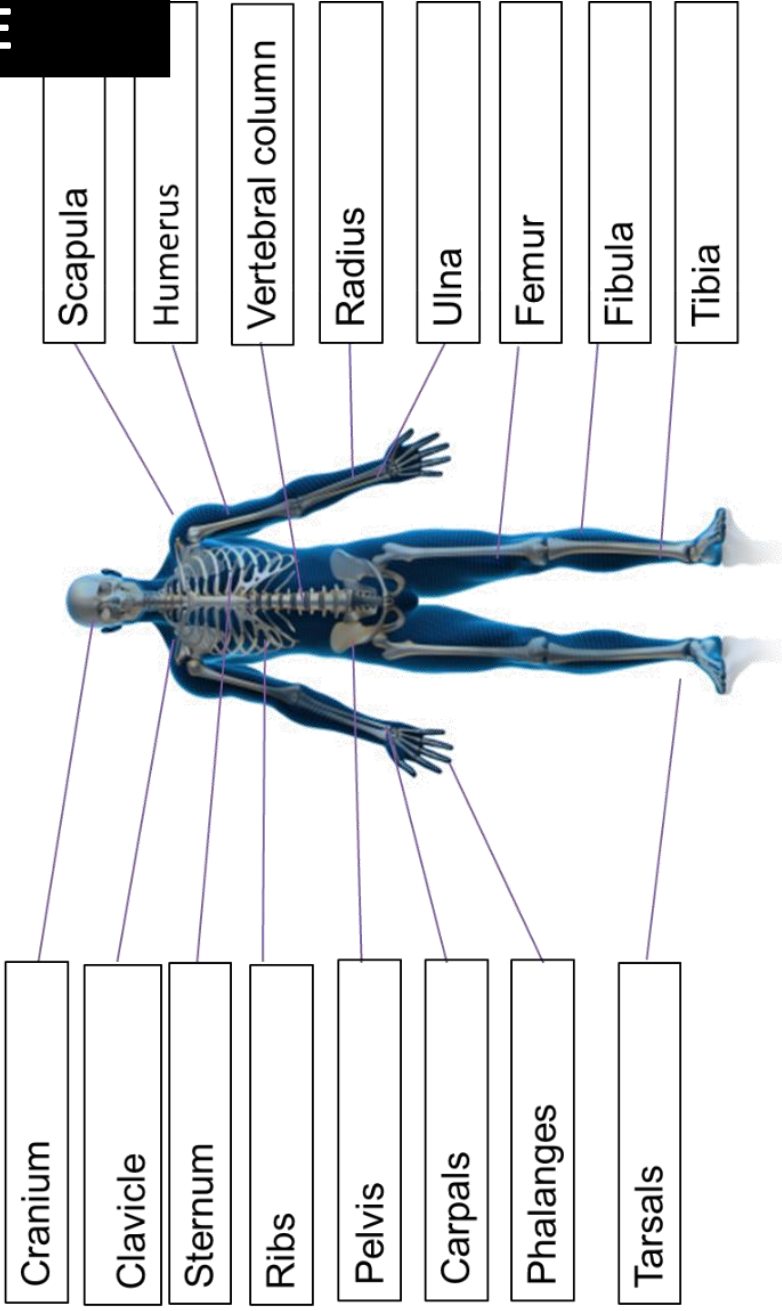
Muscular Strength	The amount of the force muscles can generate against a resistance
Muscular Endurance	The ability to use voluntary muscles, over long periods of time without getting tired
Flexibility	The range of movement at a joint
Cardiovascular Fitness (Aerobic Endurance)	The ability of the heart and circulatory system to meet the demands of the body for a long period of time
Body composition	The percentage of a body that is fat, muscle, bone and water
Coordination	The ability to move two or more body parts at the same time
Reaction Time	The time taken for a response to occur after a stimulus
Agility	The ability to change direction at speed
Balance	The ability to keep the body steady when in a static position or when moving
Speed	The time taken to cover a set distance/complete a movement
Power	The ability to combine speed and strength

Principles of training

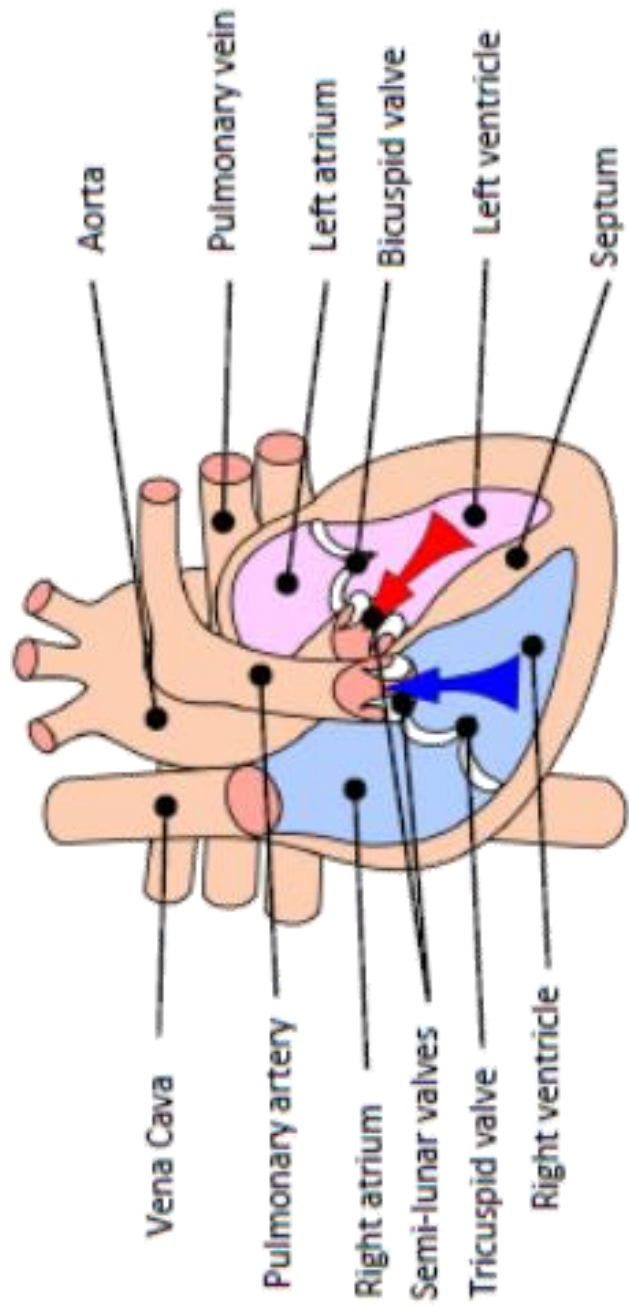
Progressive Overload	Working the body harder than normal/gradually increasing the amount of exercise you do
Reversibility	If training is not regular, adaptations will be reversed. This can happen when suffering from illness, injury or after an off season
Specificity	Training should be matched to the requirements of the sport or position the performer is in. Training must be specifically designed to develop the right muscles, type of fitness or skills
Individual needs	All PEP's would differ depending on performers goals/target, strengths /weaknesses, age/gender and current health/fitness levels
Overtraining	Occurs when you train too hard and do not allow the body enough rest/recovery time Signs include extended muscle soreness, frequent illness & increase injuries

Skeletal System

PE

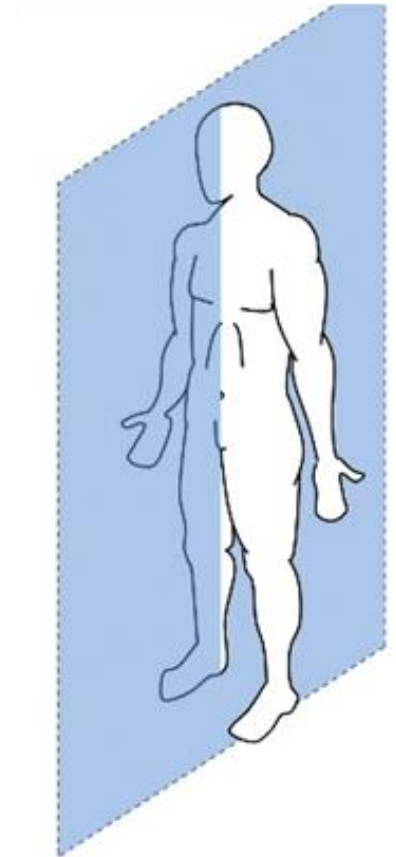
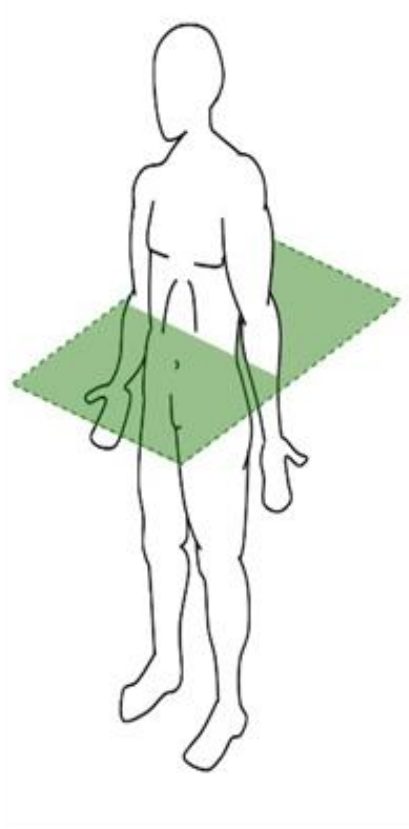
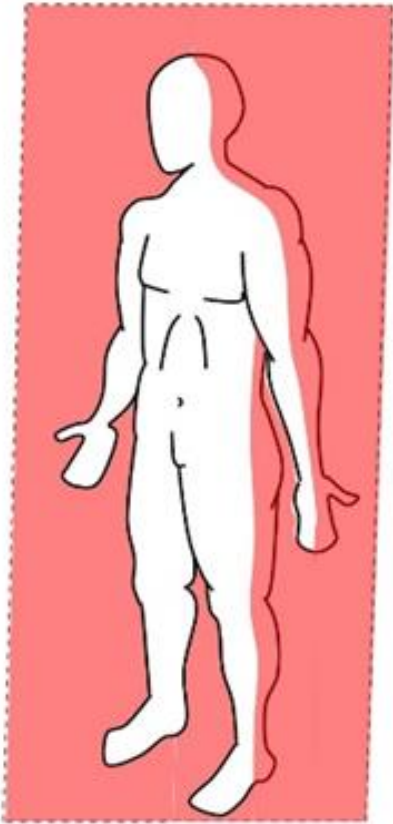


Cardiovascular System



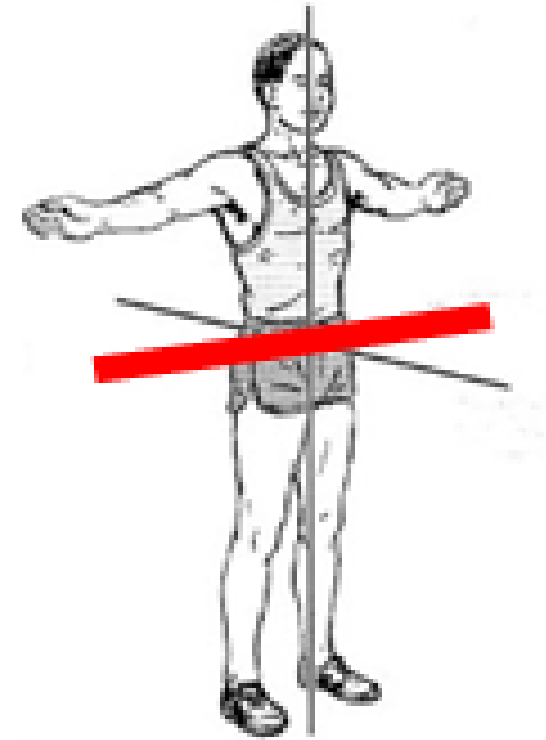
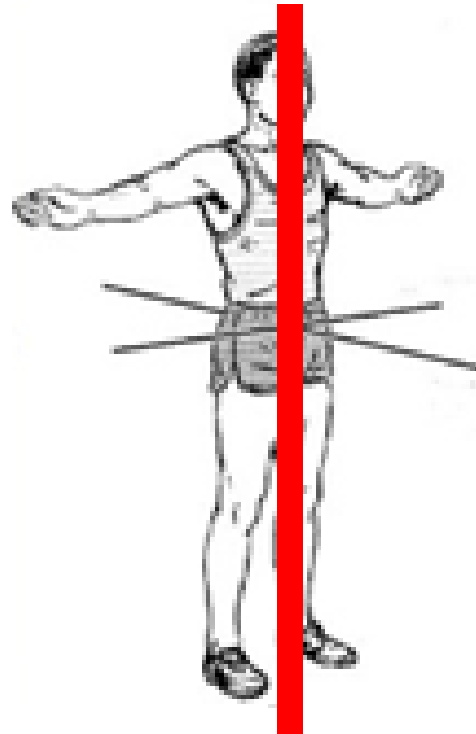
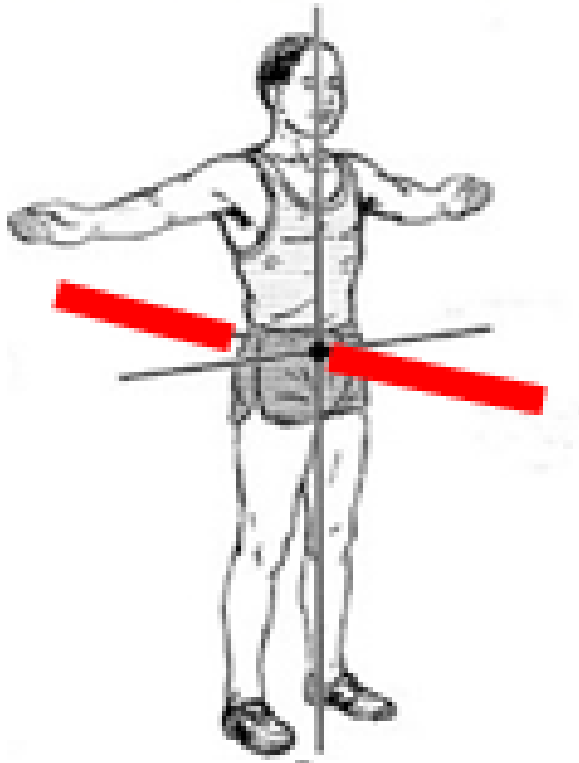
BIOMECHANICS - Planes and axes for movement

Plane	An imaginary line that divides the body into two
Frontal Plane (left picture)	A vertical plane that divides the body into front and back.
Transverse plane (middle picture)	A horizontal plane that divides the body into upper and lower halves.
Sagittal plane (right picture)	A vertical plane that divides the body into right and left sides.



BIOMECHANICS - Planes and axes for movement

PAxes for movement	An axis is an imaginary line at right angles to the plane
Sagittal axis (left picture)	Runs through the body horizontally from the back to front.
Vertical axis (middle picture)	Runs through the body vertically from the top to bottom.
Frontal axis (right picture)	Runs through the body horizontally from the left to right.



Stage Combat Skills	
Arm Block	A defensive action made with the hand or arm intended to stop a punch or similar attack
Distance	The proper measure between two or more combatants to safely execute any particular technique in stage combat.
Break Fall	Any manoeuvre which dissipates the energy or force from a fall or roll and gives the illusion of impact.
Break Fall Eye Contact	A "cue" or "check point" in a fight that has the combatants frequently look in their partner's eyes to assure mutual awareness and readiness to perform the techniques.
Staging A Scene	
Atmosphere	Music and sound effects can be used to: create mood and atmosphere.
Tone/Mood	Consider where the audience is, explore eye contact and ensure your back is not towards the audience
Stage Combat	A specialised technique in theatre designed to create the illusion of physical combat without causing harm to the performers.

Drama Techniques	
Symbolism	A symbol implies a greater meaning than the literal suggestion and is used to represent something other than what it is at face value.
Slow Motion	Is the slowing down of pace in a performance, it is often used to highlight a key moment.
Improvisation	Is a form of live theatre in which the plot, characters and dialogue of a game, scene or story are made up in the moment.
Choral Speaking	A group of people narrating a poem or a dramatic piece.
Thought Tracking/Direct Address	Speaking to the audience, asking them questions or sharing a character's thoughts/ideas and emotions.
Characters	
Romeo	Young headstrong teenager who thinks and acts with his emotions. Meets Juliet and falls instantly in love
Juliet	Young and innocent teenager who is decisive, passionate and headstrong, madly in love with Romeo
Mercutio	Romeos best friend, loyal, optimistic and a good friend.
Tybalt	Juliet's cousin, extremely feisty and enjoys the family conflict. Strong willed, argumentative, passionate and loyal.
Lord and Lady Capulet	– Juliet's parents who host the party which fuels conflict between the households and where Romeo and Juliet meet.

Computing

Digital Animation

Digital animation	Digital animation includes all the animation techniques that are done exclusively with the use of computers.
Keyframes	Instructions telling objects where to be and how to act
Timeline	The sequence of events to make an animation, where the key frames are stored
Object	These are the graphics on the time line
Powtoon	Online Animation software used to create professional publications
Export Options	
Export	Renders raw files of animation to a viewable format
MP4	A digital multimedia container format most commonly used to store video and audio
Animated Gif	Sequence of images which look like a video

Tools and Design Terminology

Rotate	To turn an object about an axis or a centre
Scale	Refers to the relative size of a design element in comparison to another element
Audience	The group of people for whom you are developing your product for
Font style	Or typography is the art of arranging letters and text in a way that makes it visually appealing to the reader
Font Size	Refers to the measurement of a particular font in terms of its height e.g 14pt
Layout	The organisation of certain elements within a page. The 'elements' are usually images, text, animation or video. This organisation is called the 'layout'
Background	A page has a background pattern or background colour
Transition	the special effect that occurs when you exit one slide and move on to the next during a presentation.
White space	Portions of a page layout or image left blank
Colour scheme	Consists of a combination of colours used in a range of design projects

Key Word	Definition
Gargoyle	A grotesque carved human or animal face or figure projecting from the gutter of a building, typically acting as a spout to carry water clear of a wall.
Middle Ages	The period of European history from the fall of the Roman Empire in the West (5th century) to the fall of Constantinople (1453)
Expression	A look on someone's face that conveys a particular emotion.
Mood	Depiction that induces or suggests of a particular feeling or state of mind.
Grotesque	A very ugly or comically distorted figure or image.
Gothic	A style of architecture prevalent in western Europe in the 12th–16th centuries (and revived in the mid 18th to early 20th centuries), characterized by pointed arches, rib vaults, and flying buttresses, together with large windows and elaborate tracery. English Gothic architecture is divided into Early English, Decorated, and Perpendicular.
Architecture	The art or practice of designing and constructing buildings.
Mythology	A collection of myths, especially one belonging to a particular religious or cultural tradition.
Medieval	Resembling or likened to the Middle Ages, especially in being cruel, uncivilized, or primitive.
Romanesque	Relating to a style of architecture which prevailed in Europe c. 900–1200, although sometimes dated back to the end of the Roman Empire
Representation	The description or portrayal of someone or something in a particular way.
Symbolism	An artistic and poetic movement or style using symbolic images and indirect suggestion to express mystical ideas, emotions, and states of mind.
Christianity	The religion based on the person and teachings of Jesus Christ, or its beliefs and practices.
Score & Slip Process	slip and score in pottery is a technique used to join two pieces of clay together. To slip and score clay, a potter scratches marks on the surface of the clay (score). The potter then applies a liquid mixture of clay in water (slip) to the scored surface.
Firing Clay	Firing clay changes the structure of the clay, bonding the clay particles together making it stronger, a more permanent ware. In the case of stoneware, the higher firing temperature causes the clay to become impervious to water, a useful quality in dinnerware.

Cooking and Nutrition

Key Word	Definition
Ragu	A meat based sauce that is commonly served with pasta
Kitchen Hygiene	Ensuring that everything is clean when preparing food
Kitchen Safety	Being safe in the kitchen
Cross contamination	Transfer of bacteria from one person, object or place to another
Eat Well Guide	A pictorial food guide showing the amounts and types of foods that are needed to make up a healthy balanced diet
Claw grip	A method of cutting food that ensures that the finger tips are tucked out of the way and will not get caught by the knife
Food poisoning	An illness caused by eating contaminated food
Bacteria	Microscopic living organisms which can be found everywhere
Salmonella	Food poisoning bacteria found in chicken, some dairy products and raw eggs
Seasonal foods	Foods that are only available at certain times of the year
cuisine	A style of cooking of a particular country or region
Bridge Hold	A method of cutting food that ensures that fingers are out of the way as the knife cuts through the food

Music

Key Word	Definition
Chords	A chord in music is a combination of three or more notes played simultaneously, forming the harmonic foundation of a piece.
Structure in pop	organization and arrangement of various song sections like verses, choruses, bridges, and the overall layout, creating the framework for the composition.
Harmony	is the combination of different musical notes played simultaneously, creating a rich and pleasing sound that adds depth and character to a musical piece.
Time signature	It tells you how many beats are in each measure and which note gets one beat, helping you keep track of the rhythm while playing or singing.
Dynamic	The volume of a sound or piece of music – loud/soft
A Round/Canon	A round , also called canon, is a musical composition with a minimum of three voices sing exactly the same melody at the unison (and may continue repeating it indefinitely), but with each voice beginning at different times so that different parts of the melody coincide in the different voices, but nevertheless fit harmoniously together.
Timbre	Each instrument own unique 'tone quality' and the voice as an instrument had different Timbre
The diaphragm	The diaphragm is basically the muscle below the human lungs and slightly above the stomach responsible for controlling inhalation and exhalation of breath. Most people have heard singers being advised to breathe using their diaphragm every time they sing
Texture	Sometimes voices sing different parts at the same time creating Harmony . Not all vocal music is accompanied by instruments, unaccompanied singing is called A Cappella .
Rhythm	Rhythm is the pattern of sounds and beats in music that creates a sense of movement and flow. It is like the heartbeat of a song that helps us feel the music and dance or sing along. Rhythm can be fast or slow, simple or complex, and is created by combining different beats and notes in a particular order. It is an essential element of music that makes it enjoyable and exciting to listen to.
Tempo	Tempo refers to the speed of music. It's how fast or slow a song sounds.