



Year 7 Knowledge Organiser

Knowledge is Power

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English

Key Terms

Stereotype	a widely held but fixed and oversimplified image or idea of a particular type of person or thing.
Refugee	a person who has been forced to leave their country in order to escape war, persecution, or natural disaster.
Prejudice	preconceived opinion that is not based on reason or actual experience.
Identity	Identity is the qualities, beliefs, personality, looks and/or expressions that make a person or group.

Punctuation

Punctuation	Uses
Ellipsis	Words left out of a sentence to create a pause or suspense or to leave a thought carrying on.
Semi-colon	Can be used between two independent clauses instead of a conjunction.
Colon	Used to introduce a list or a quote.
Dashes	Separate groups of words to show disruption or a pause.

Devices

Device	Definition
Rhetorical question	A question posed for effect rather than to get an answer.
Metaphor	Comparing by referring to one thing as another.
Simile	A comparison of two different objects using like or as .
Emotive language	Words used to cause an emotional response.
Pathetic Fallacy	When a character's mood is reflected in the weather/ environment.

Key Vocabulary

Reluctant	To be unwilling and hesitant to do something.
Exuberant	To be full of energy and excitement.
Intricate	To be very complicated and detailed.
Remorse	A feeling of deep regret.
Distraught	To be deeply agitated especially from emotion.

Key Terms

Imagery	Imagery is visually descriptive or figurative language.
Structure	Structure refers to the order of ideas in a piece of writing.
Tone	Tone is the general character or attitude of a place, piece of writing, situation.
Setting	Setting is the place or type of surroundings where something is positioned or where an event takes place.

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 first which helps you to answer the question and is relevant and rich.
3. Explain – explain how your evidence is relevant to the question and helps support your point.
4. Device – identify a language device that is used in your quote.
6. Analysis – zoom in on a key words and make relevant connotations.
7. Link – link back to your question and explain how your analysis supports your point.

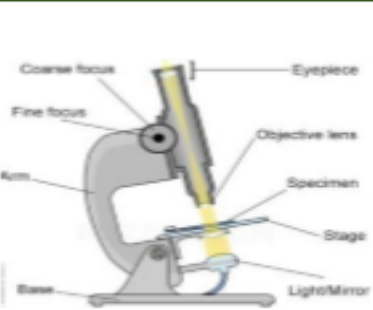
Maths

Key Word	Definition
Factor	A number that divides another number exactly
Multiple	A number which is part of another number's times table
HCF	Highest Common Factor. It is the largest factor common to a set of numbers
LCM	Lowest Common Multiple'. It is the smallest multiple common to a set of numbers
BIDMAS	Tells us the order of operations: Brackets, Indices, Division, Multiplication, Addition, Subtraction
Integer	A whole number
Product	Multiply
Prime number	A number which has exactly two factors. The number one and itself
The first 13 Prime numbers	2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41

Key Word	Definition
Square number	The answer when an integer is multiplied by itself
Cube number	The answer when an integer is multiplied by itself three times
The first 6 cube numbers	1, 8, 27, 64, 125, 216
Square root	The number you would multiply by itself to get a value
Cube root	The number you would multiply by itself three times to get a value
Standard Form	Is a way to write really big or really small numbers
Standard Form notation	Number between 1 and 9.9×10^n
=	Equals to (same)
> Or <	'less than' or 'greater than'
\leq or \geq	'less than equal to' or 'greater than or equal to'
\neq	Not equal to

Key Word	Definition
Regular shape	All sides and angles are equal
Irregular shape	Sides and angles are not equal
Vertices	Points where two edges meet (like a corner)
Triangle	3 sides, 3 vertices
Quadrilateral	4 sides, 4 vertices
Pentagon	5 sides, 5 vertices
Hexagon	6 sides, 6 vertices
Heptagon	7 sides, 7 vertices
Octagon	8 sides, 8 vertices
Nonagon	9 sides, 9 vertices
Decagon	10 sides, 10 vertices
Hendecagon	11 sides, 11 vertices
Dodecagon	12 sides, 12 vertices

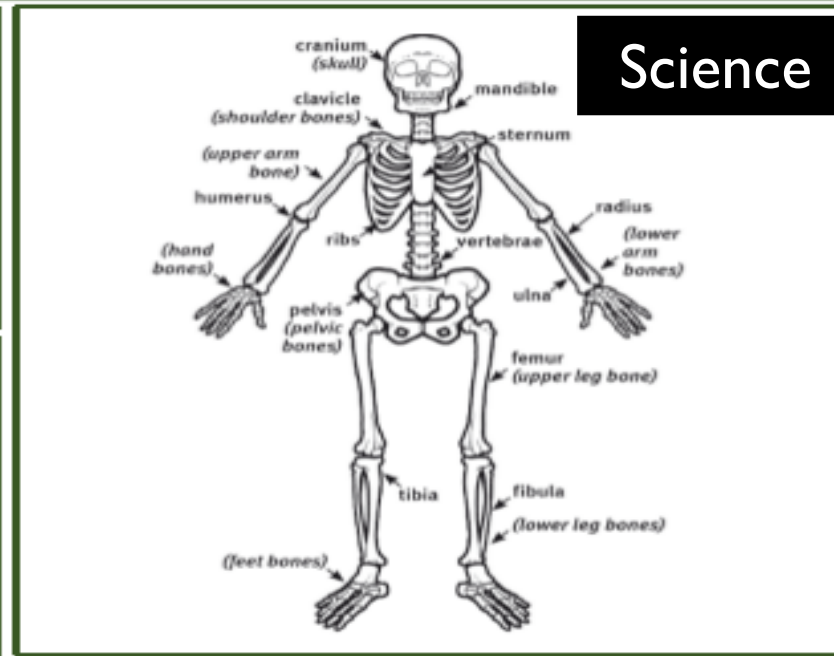
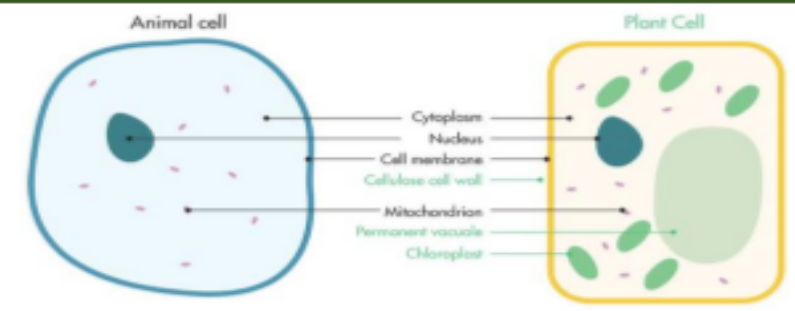
Keyword	Definition
Cell	Basic unit of life. Unicellular organisms only have one cell. Multicellular organisms have many cells.
Cell Membrane	Controls the movement of substances in and out of the cell.
Cytoplasm	Jelly-like substance where chemical reactions take place.
Nucleus	Carries genetic information and controls the cell.
Mitochondria	Where respirations takes place.
Cell Wall	Made of cellulose, provides support to the cell.
Vacuole	Contains cell sap.
Chloroplasts	Contains the green pigment chlorophyll, the site of photosynthesis.
Tissue	Something made from just one type of specialised cell.
Organ	Something made from different groups of specialised cells all working together.
Organ System	When a number of organs work together.
Synovial Joint	A freely moveable joint. Examples include the hip, shoulder, elbow and knee joints.



Light Microscope: A device which uses light and a series of lenses to produce a magnified image of an object.

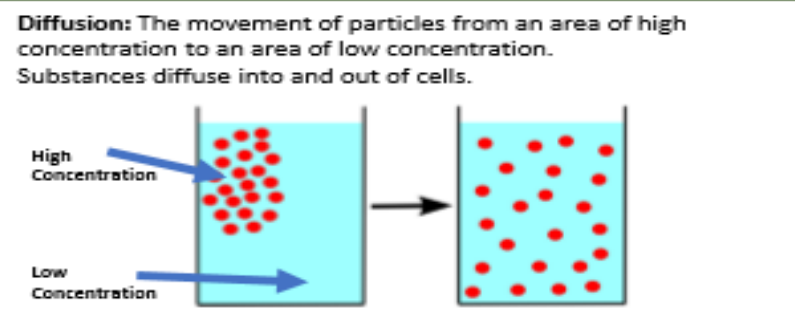
Magnification = How much bigger a sample/object appears under the microscope than it is in real life.

Total magnification = Eyepiece lens x Objective lens

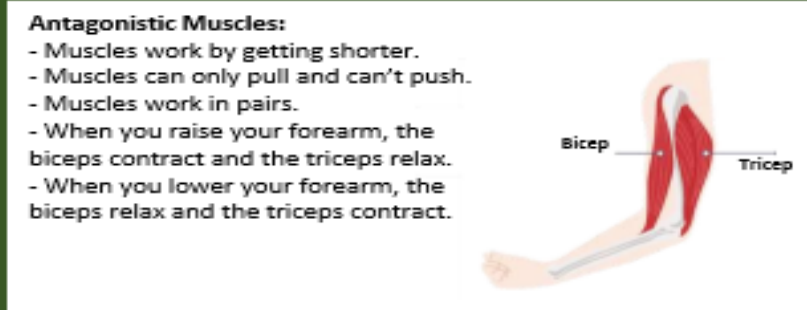
Animal cell (left) and **Plant Cell** (right).

Diffusion: The movement of particles from an area of high concentration to an area of low concentration. Substances diffuse into and out of cells.


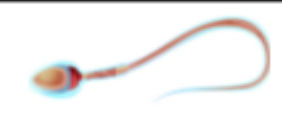


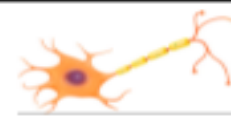
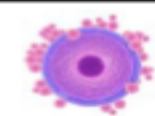


Antagonistic Muscles:

- Muscles work by getting shorter.
- Muscles can only pull and can't push.
- Muscles work in pairs.
- When you raise your forearm, the biceps contract and the triceps relax.
- When you lower your forearm, the biceps relax and the triceps contract.



Further Reading:
<https://www.bbc.com/bitesize/guides/z9hyvcw/revision/2>

Red Blood Cell	Sperm Cell	Root Hair Cell	Palisade Cell	Nerve Cell	Egg Cell
					
Carries blood around the body. Adaptations: No nucleus, large surface area and biconcave shape.	Carries the male genes. Adaptations: Tail for swimming, mitochondria for energy, acrosome to break down the egg cell.	Take in water from the soil. Adaptations: Long & thin; large surface area for maximum water absorption. Thin cell walls.	Production of food for the plant. Adaptations: Tall and thin. Lots of chloroplasts to absorb sunlight for photosynthesis.	Carry signals around the body. Adaptations: Long axon. Myelin sheath.	Carries the female genes. Adaptations: Lots of mitochondria. Outer layer hardens once fertilised.

Science Skills

Types of Variable

Independent – the variable that is changed to see if it has an effect

Dependent – the variable that is measured to see the effect

Control – the variables that stay the same (these are factors that might affect the variable being measured)

Types of Data

Categoric – values that are labels e.g. type of plant















Continuous – values are numbers e.g. temperature

Tables

Units **only** go in headings and not in the body of the table

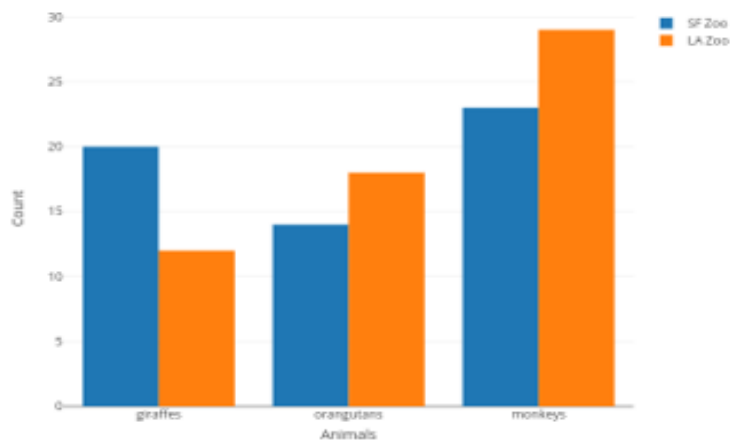
Time (s)	Vol gas (cm ³)
10	5
20	8

Equipment / Apparatus

How to draw commonly used lab equipment in Scientific Diagrams			
How it looks	How it should be drawn	How it looks	How it should be drawn
	test tube		funnel with filter paper
	boiling tube		evaporating basin
	measuring cylinder		gauze or XXXXXXXXXXXX
	beaker		tripod
	conical flask		Bunsen burner ↑ HEAT
	round-bottomed flask		heat-proof mat (safety mat)
	rubber bung (with or without a hole)		Liebig condenser

Bar Chart

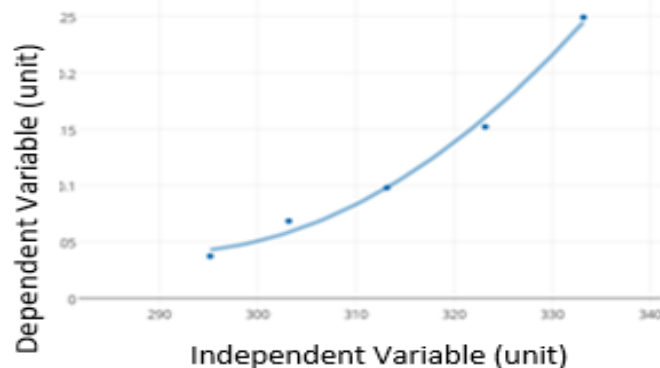
Type of graph plotted for one piece of **categoric** data and one piece of **continuous** data



Line Graph

Type of graph plotted for two pieces of **continuous** data

Has a **line of best fit**. This may be a **straight line** or a **curve** (not join the dots)



Key words

Accurate – close to the true value

Anomalous – a result that doesn't fit the pattern

Precise – small amount of spread around the mean

Repeatable – if the same results are obtained when the investigation is repeated

Range – the biggest and smallest values of the independent or dependent variable e.g. 0-10 N

Volume – amount of a liquid or gas in a 3D area

Ancient Rome and Britain

Roman Britain was the territory that became the Roman Province of Britannia after the Roman conquest of Britain, consisting of a large part of the island of Great Britain. The occupation lasted from AD 43 to AD 410. Julius Caesar invaded Britain in 55 and 54 BC as part of his Gallic Wars

Key Events

753 BCE – Traditional date for the founding of ancient Rome

509 BCE – Traditional date for the founding of the Roman Republic

83-31 BCE – Period of Civil Wars leads to the fall of the Roman Republic

27 BCE – Augustus establishes himself as the first of the Roman emperors

43 CE – Romans invade Britain under Aulus Plautius.

47-50 CE – Londinium (London) founded, roads constructed.

60-61 CE – Boudicca revolts, the Legio II Augusta does not respond to a call to arms.

123 CE – The emperor Hadrian begins to build his famous defence system across northern Britain

312 CE – The conversion of the emperor Constantine to Christianity

410 CE – The Romans withdraw from Britain.

Key Concepts

Republic – The era of classical Roman civilization beginning with the overthrow of the Roman Kingdom, traditionally dated to 509 BC, and ending in 27 BC.

Democracy - A system of government where the people vote to decide who will be the leader.

Empire – Post-Roman Republic period of the ancient Roman civilization, characterized by government headed by emperors and large territorial holdings around the Mediterranean Sea in Europe, Africa and Asia.

Dictatorship - A system of government where one person has absolute power over everybody.

Key Term	Definition
Republic	The era of classical Roman civilization beginning with the overthrow of the Roman Kingdom, traditionally dated to 509 BC, and ending in 27 BC.
Democracy	A system of government where the people vote to decide who will be the leader.
Empire	Post-Roman Republic period of the ancient Roman civilization, characterized by government headed by emperors and large territorial holdings around the Mediterranean Sea in Europe, Africa and Asia.
Dictatorship	A system of government where one person has absolute power over everybody.
Hierarchy	A system in which members of an organization or society are ranked according to relative status or authority.
Pastime	An activity that someone does regularly for enjoyment rather than work; a hobby.
Centurion	A professional officer of the Roman army. Most centurions commanded groups of around 80 legionaries.
Amphitheatre	An open-air venue used for sport. Derived from the Greek words amphi for 'around' and theatron for 'place for viewing'.
Mythology	The study of myths. From the Greek word mythos meaning story.
Pater Familias	The head of the Roman household.
Aqueduct	Brought water from outside sources into cities and towns. Aqueduct water supplied public baths, latrines, fountains, and private households.
Pontifex Maximus	The chief high priest in ancient Rome. The most important position in the ancient Roman religion.
Senate	An assembly of elders who would advise the King.
Archaeology	The scientific study of human activity through the recovery and analysis of material culture

Geography

Key Word	Definition
Contents page	A page at the start of the atlas which tells you where information will be. It will give you the page numbers.
Index page	A page in the book, usually at the back of a book with a list of topics/names with reference to page numbers.
Key	More detailed information provided from a map/ diagram. Often uses colours or symbols to represent features.
OS Map	OS is short for Ordnance Survey map. It uses a range of symbols, abbreviations and language to show features on the landscape of GB. When working out a grid reference use this saying, 'Down the corridor and up the stairs'.
4 figure grid reference	Shows the location of a place in 4 figures. E.g. 45,90
6 figure grid reference	Shows the location of a specific place in 6 figures, this is more accurate than 4 figure. E.g. 457,901.
Scale	The ratio of a distance on a map, graph or diagram to the corresponding actual distance.
Relief	Height above sea level and is shown in many ways on a map.
Spot height	It is an exact point on a map with a height recorded.
Contour lines	This show the GRADIENT of the hill. This means contour lines tell us how steep the hill is.
Layer colouring	It involves colouring the area between selected contours in different colours. The darker the colour the higher the land.

Key Word	Definition
Latitude	Lines of latitude circle the Earth in an east-west direction. They are parallel to each other.
Longitude	Lines of longitude run from the top of the Earth to the bottom. They are not parallel as lines of latitude are – they meet at a point at the north and south poles.
Physical geography-	A branch of geography that looks at the natural features of the planet, such as the ocean, mountains and rivers.
Human geography-	A branch of geography that looks at human activities and how humans have shaped the planets surface, such as cities, jobs and the economy.
Environmental geography-	A branch of geography that looks at how humans have affected the planet, such as pollution, impacts on wildlife and the earth natural features
Continents	Large and continuous land that is made up of several countries. 7 continents Africa, North America, South America, Asia, Europe, Antarctica , Oceania
Ocean	Large body of water. 5 main oceans Atlantic, Pacific, Indian , Artic, Southern
United Kingdom (UK)	A country made up of England, Scotland, Wales and Northern Ireland
Great Britain (GB)	An island in north-western Europe, containing the countries of England, Wales and Scotland.
British Isles	A group of islands in north-western Europe, containing the countries of England, Scotland, Wales, Northern Ireland and Ireland.

Geography

Key Word	Definition
Uplands	Land that is at a higher elevation eg hills and mountains
Lowlands	Land that is at a lower elevation eg flat land
Source	A start point of the river.
Mouth	The point where the river meets the sea or lake.
Tributary	a river or stream flowing into a larger river or lake
Confluence	where two or more tributaries meet
Drainage basin	an area drained by a river and all of its tributaries
Meander	A bend in a river
Population	A group of individuals of the same species occupying a particular geographic area.
Population density	The average number of people per square kilometre
Densely	Being closely compacted together; crowded or compact
Sparsely	Being thinly scattered or distributed.
Ethnicity	Characteristic of a people , sharing a common and distinctive culture, religion and language
Multi-cultural	Containing several cultural or ethnic groups within society
Economically active	Part of a population who are working, usually between the ages of 20-65
Young dependents	Younger part of a population who are in education, usually between the ages of 0-19
Elderly dependents	Older part of a population who are retired, usually aged over 65

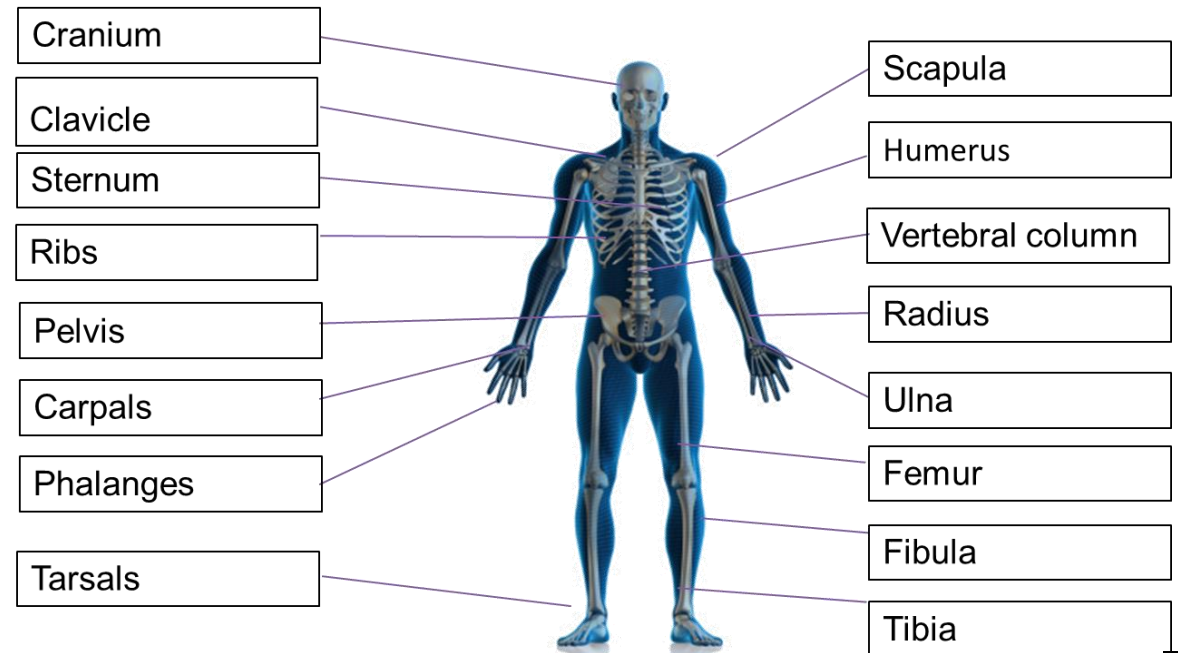
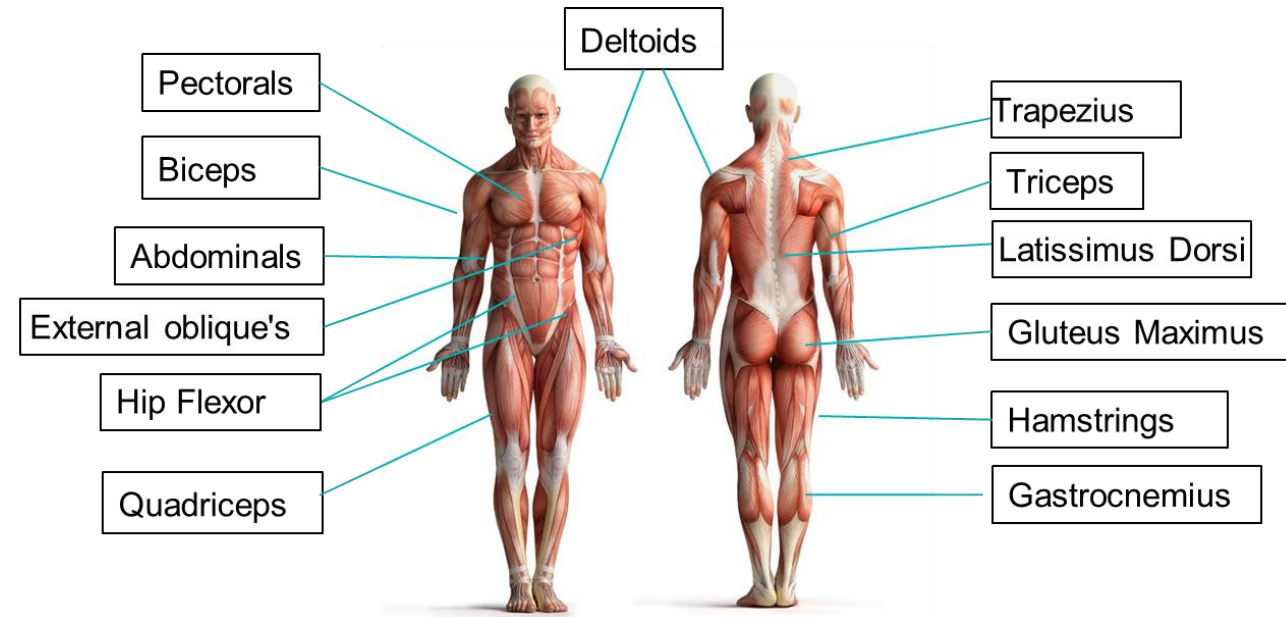
Spanish	English
¿Cómo te llamas?	How are you called?
¿Cuántos años tienes?	How old are you?
¿Cuándo es tu cumpleaños?	When is your birthday?
¿Cuál es tu color favorito?	What is your favourite colour?
¿Dónde vives?	Where do you live?
Me llamo	I am called...
Tengo años	I am ... years old
Mi cumpleaños es el ... de ...	My birthday is on...
Mi color favorito es ...	My favourite colour is...
Vivo en...	I live in...
lunes	Monday
martes	Tuesday
miércoles	Wednesday
jueves	Thursday
viernes	Friday
sábado	Saturday
domingo	Sunday

Spanish	English
enero	January
febrero	February
marzo	March
abril	April
mayo	May
junio	June
julio	July
agosto	August
septiembre	September
octubre	October
noviembre	November
diciembre	December
Los días de la semana	The days of the week
porque / ya que	Because
también	Also
pero	But
sin embargo	However

Spanish	English
por la tanto / por eso	Therefore
además	In addition
fenomenal	Phenomenal
(Muy) bien	(very) well
regular	Ok
(muy) mal	(very) bad
fatal	Awful
¿Y tú?	And you?
Tengo	I have
Soy	I am
Hay	There is
Verde	green
Azul	blue
Amarillo	yellow

Spanish	English
Naranja	orange
Rojo	red
Rosa	pink
Violeta	purple
marrón	brown
Negro	black
blanco	white
Un perro	A dog
Un gato	A cat
Un pez	A fish
Un ratón	A mouse
Un conejo	A rabbit
Una cobaya	A guinea pig

Key Word	Definition
Muscular system	Works in conjunction with the skeleton to produce movement of the limbs and body
Antagonistic pairs	Muscles are arranged in antagonistic pairs. As one contracts, its partner relaxes
Agonist	The muscle that contracts to produce movement
Antagonist	The muscle that relaxes to allow the movement to occur
Skeleton	Is the central structure of the body



Aesop's Fables

A fable is a type of short story that typically has animals as characters. Fables always have a moral (this is a hidden meaning). They sometimes use personification to give the animal characters human characteristics. Aesop was an ancient Greek writer that came up with many famous fables, including 'The Lion and The Mouse':

Characteristics of Fables

- ✓ Fables are short and have few characters.
- ✓ Fables are just one story.
- ✓ The setting can be anywhere.
- ✓ A lesson or moral is taught and is sometimes stated at the end of the story.

Building a Character

There are 4 key elements that need to be considered when you are creating and performing an effective character.

1. Body Language
2. Posture
3. Facial Expression
4. Voice

3 Rules for Performing

- 1) Don't turn your back to the audience
- 2) Don't block anyone in your scene
- 3) Try to have only one person speak at a time

Drama Skills

Key Word	Definition
Body Language	How an actor uses their body to communicate meaning. For example, crossing your arms could mean you are fed up
Projection	Ensuring your voice is loud and clear for the audience to hear
Character	The person/persona an actor wishes to convey.
Posture	The position an actor holds their body when sitting or standing. For example, an upright posture.
Facial Expression	Using the face to express that characters feelings and emotions.

Drama Techniques

Key Word	Definition
Soundscape	A soundscape is a sound picture of a moment in a drama, used to create atmosphere and/or tell a story.
Narrator	The person who helps to tell the story or moral of the piece.
Direct Address	When you speak directly to the audience 'in role'.
Thought Track	When you speak your characters thoughts/feelings out loud, usually during a still image
Freeze Frames	Freeze-frames, also known as tableaux or snapshots, are a useful well-known drama technique for showing a moment in the middle of the action

Computing

Key Word	Definition
E-safety	Staying safe online. Making sure that people are protected from harm of using any electronic device for online purposes.
E-mail	Is short for electronic mail. An email is sent from one computer to multiple computers through the use of email addresses.
Malware	Short for Malicious Software. Malware can be various different programs which will try to do something unwanted to your computer.
Phishing	Trying to trick someone into handing over sensitive information through the use of emails.
E-safety	Staying safe online. Making sure that people are protected from harm of using any electronic device for online purposes.
E-mail	Is short for electronic mail. An email is sent from one computer to multiple computers through the use of email addresses.
Malware	Short for Malicious Software. Malware can be various different programs which will try to do something unwanted to your computer.
Plagiarism	Copying work from another source and passing it off as your own.
Digital footprint	A trail of data you leave when using the internet. Sites visited, emails, pictures sent etc.
Cyberbullying	bullying someone through any use of technology.

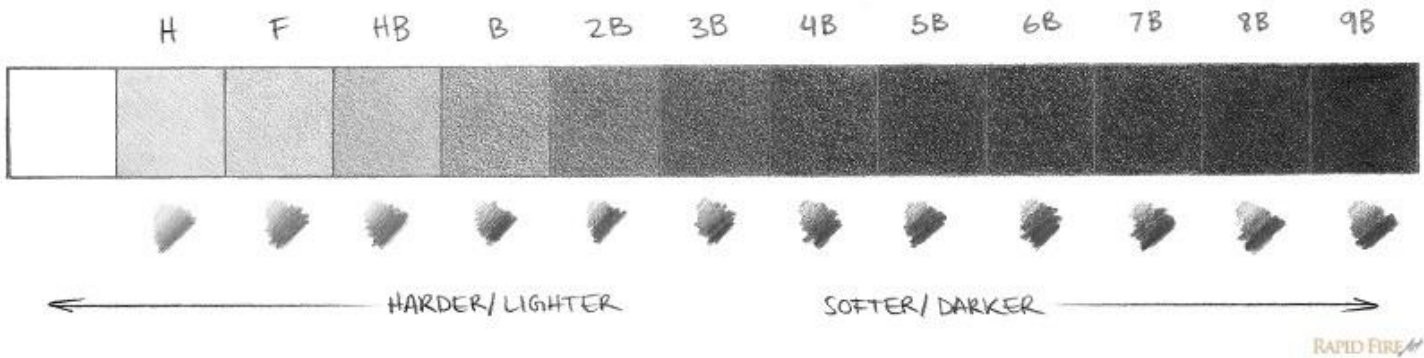
Three Main Types of Malware:

1. Virus	Like a normal common cold a virus spreads from one computer to another through programs. It can work by slowing your computer down or in severe cases you could lose all your programs and documents.
2. Trojan	A Trojan horse will actually pretend to be a useful and safe program but it actually will try and attack your device.
3. Worms	Very similar to viruses as they do duplicate and spread. However, they can do this hundred and thousands of times and infect other computers in minutes through email attachments.

Types of Cyberbullying

Harassment	Using text messaging, instant messaging and email to harass, threaten or embarrass the target.
Impersonating someone	Developing a screen name that is similar to the victim's screen name and then posting rude or hurtful remarks while pretending to be the victim.
Creating websites	Spreading rumours, lies or gossip about the victim online through websites or blogs.
Trolling	Provoking or antagonising someone online and looking for a reaction
Grooming	When an adult befriends a child in preparation to commit a further criminal offence

Key Word	Definition
Line	An element of art defined by a point moving in space. Line may be two-or three-dimensional, descriptive, implied, or abstract
Shape	An element of art that is two-dimensional, flat, or limited to height and width.
Form	An element of art that is three-dimensional and encloses volume; includes height, width AND depth (as in a cube, a sphere, a pyramid, or a cylinder). Form may also be free flowing
Value	The lightness or darkness of tones or colors. White is the lightest value; black is the darkest. The value halfway between these extremes is called middle gray.
Tone	Tone means how light or dark something is. The tones artists and designers use and the contrast between them can create very different moods and visual effects.
Organic	Shapes that are not regular or even, using a combination of edges that are curved or angular.
Contrast	Contrast is created by using opposites near or beside one another, such as a light object next to a dark object or a rough texture next to a smooth texture.



Textiles

Key Word	Definition
Natural Fiber	Fibers are long, thin strands of material made by plants, animals, or humans.
Tie Dye	produce patterns in (a garment or piece of cloth) by tying parts of it to shield it from the dye.
Embroidery	Embroidery is the craft of decorating fabric or other materials using a needle to apply thread or yarn. Embroidery may also incorporate other materials such as pearls, beads, quills, and sequins.
Mood board	A mood board is a visual tool that helps you communicate your design concepts and ideas by collection of images, materials, colour palettes, text, and other elements.
Background	The part of a composition that appears furthest away from the viewer.
Foreground	The part of a composition that appears closet to the viewer.

Key Word	Definition
Hazard	Anything that is dangerous
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
Bridge Hold	A method of cutting food that ensures that fingers are out of the way as the knife cuts through the food
Bacteria	Extremely small, single celled organism that can only be seen under a microscope
Cooking utensils	Small items such as bowls, sieves and whisks that are used for preparation and mixing of ingredients
Cooking equipment	Large equipment such as refrigerators, ovens and hobs. Smaller equipment include saucepans and baking trays.
Weigh	Finding out how heavy an ingredient is.
Measuring	To find out the size or amount of an ingredient