OADV –Year 10 Students

100% Booklet-Ebacc subjects

Student Name……

English

Knowledge Organiser Focus: 'Macbeth'

I should already know:

- 'Versatile vocabulary' introduced in years 7-9
- Structure of analytical paragraphs
- Contextual knowledge of Shakespeare and the Elizabethan and Jacobean eras
- The conventions of Tragedy
- Characteristics of heroes and villains

I will learn:

- Structure of Shakespearian tragedies
- Aristotelian perspective of the tragic hero
- Presentation of tragic heroes
- Year 10 'Versatile Vocabulary.'

English Language:

- **Sentence Demarcation**
- **Speech Punctuation**
- **Paragraphing**
- **Writing Practice**
  - Fictional writing

This will help in the future:

- GCSE English Literature Paper 1 Section A

Further Reading

BBC bitesize – https://www.bbc.co.uk/bitesize/topics
Other Shakespearean plays – King Lear, Hamlet, Othello

Versatile Vocabulary: Year 10 and Year 11

From feudalism to fighting for freedom: contending with rules, stories and patterns

Something concrete is definite, solid and real.	concrete	abstract	Something abstract is not physical; based on ideas.
Order exists when everything is in the correct or expected place	order	chaos	Chaos is a state of complete disorder and confusion.
If something is secure, it is strong and difficult to damage.	secure	vulnerable	If something is vulnerable, it is easy to harm and is fragile.
If someone is dogmatic, they are stubborn and unchangeable.	dogmatic	malleable	If someone or something is malleable, it can be changed and is flexible
You use constant to describe something that happens all the time or is always there.	constant	volatile	A situation that is volatile is likely to change suddenly and unexpectedly.
Something intermittent happens every so often.	intermittent	perpetual	Something perpetual never ends or changes.
If something is tangible, it can be felt, seen or noticed.	tangible	intangible	Something that is intangible can't be measured or felt.
Something physical can be touched and seen.	physical	metaphysical	Something metaphysical does not have a body or substance.
Natural behaviour is shared by all people or all animals and has not been learned.	natural	supernatural	Something supernatural is beyond laws of nature. It is impossible that it exists.
Something normal is expected, logical and usual.	normal	abnormal	Something abnormal is beyond or different to what is expected.
The literal meaning of a word is its original, basic or true meaning.	literal	metaphorical	The metaphorical meaning of a word or phrase is what it suggests.
Rational decisions and thoughts are based on reason and logic rather than on emotion.	rational	emotional	An emotional decision is concerned with emotions and feelings.
Something permanent lasts forever.	permanent	ephemeral	Something ephemeral lasts for a short time; it is temporary.
If someone or something reinforces a feeling or situation, it makes it stronger.	reinforce	transgress	If someone transgresses, they break or go against a moral law or a rule of behaviour.
A moral person behaves in a way that is believed by most people to be good and right.	moral	immoral	If you describe someone or their behaviour as immoral, their behaviour is wrong.
If you describe a person in authority as benevolent, they are kind and fair.	benevolent	malevolent	A malevolent person deliberately tries to cause harm or evil.
If you describe someone as credulous, they are believe what people tell them and are gullible.	credulous	duplicitous	Someone who is duplicitous lies and is two-faced.
The interior or something or someone is its inside.	interior	exterior	The exterior of someone or something is its inside.
Someone innocent has no knowledge of the more unpleasant aspects of life.	innocent	corrupt	Someone who is corrupt behaves in a way that is wrong, often in return for power.
Something that is inferior is not as good as something else.	inferior to	superior to	Something that is inferior is not as good as something else.
A utopia is a world where society is impossibly perfect.	utopia	dystopia	A dystopia is an imaginary place where everything is as bad as it can be.
Something that is static does not move or change.	static	active	Someone of something that is active moves around a lot.
A creature's prey are the creatures that it hunts and eats in order to live.	prey	predator	A predator is an animal that kills and eats other animals.
If you say that something is comforting, you mean it makes you feel less worried.	comforting	unsettling	If you describe something as unsettling, you mean that it makes you feel worried.
If you describe someone as liberated, you mean that they have been freed.	liberated	imprisoned	If someone is imprisoned, they are locked up or trapped.
If you say that there is a paucity of something, you mean that there is not enough of it.	paucity	excess	An excess of something is a larger amount than is needed, allowed, or usual.
A philanthropic person or organization freely gives money or kindness to people who need it.	philanthropic	misanthropic	If you describe a person as misanthropic, you mean that they do not like other people.
If you describe something as banal, you do not like it because you think that that it is dull and boring.	banal	idiosyncratic	If you describe someone or something as idiosyncratic, you mean that it is unusual.
Homogeneous is used to describe a group or thing which has members or parts that are all the same.	homogeneous	heterogeneous	A heterogeneous group consists of many different types of things or people.
Something that is finite has a fixed size or end.	finite	infinite	Something that is infinite lasts forever; it has no end.

Greater Depth Challenge

- How did Shakespeare structure his tragedies so that the audience were not surprised?
- Why did Shakespeare write the play Macbeth? What was one of his intentions?

Macbeth. 1 : Essential Knowledge

Feudal Era	Macbeth is set in the feudal era. A feudal society was based upon loyalty to the king. Kings and Thanes ruled and peasants worked for them. The world was warlike, religious and many believed in magic.	Scotland	The play is set in Scotland. Scotland was not part of the UK during the feudal era, and had its own king.	Ross and Lennox	These are also areas of Scotland. The Thanes of Ross and Lennox feature in the play.
Thane	A thane is a senior Scottish Lord near the top of the feudal system. They were expected to fight for the king, and were rewarded for their loyalty.	Prince of Cumberland	The Prince of Cumberland is the title given to the man who will be the next king. It did not have to be the son of the king. Macbeth is surprised that he is not named the Prince of Cumberland.	Glamis	Glamis is an area of Scotland. Macbeth is the Thane of Glamis.
Thanes and Ladies	The wife of a thane is called a Lady. Lady Macbeth and Lady MacDuff are important ladies.	Cawdor	Cawdor is an area of Scotland. The Thane of Cawdor is the most important Lord in Scotland.	Dunsinane	Dunsinane is the name of Macbeth's castle at Glamis.
False Thanes	At the end of the play, many thanes swap sides and fight against Macbeth. Macbeth calls them "false thanes".	Fife	Fife is an area of Scotland. MacDuff is the Thane of Fife.	Birnam Wood	Birnam Wood is a wild forest that grows beside Macbeth's castle of Dunsinane.

The English		The Forces of Darkness		Servants	
England	England was a more powerful country than Scotland. At the end of the play, the English army invades Scotland to help Malcolm and Macduff defeat Macbeth.	Wyrd Sisters	Groups of witches were called wyrd sisters. Wyrd means unnatural or strange. They were called sisters even though they might not be related.	Grooms	Grooms were servants who looked after important thanes - they also served as guards.
Siward	Siward is the Earl of Northumberland. He is the English leader that is helping Malcolm.	Hecate	Hecate is a goddess of mischief and hell. She is viewed as the queen of witches.	Porter	The porter is a servant who opens the door to the castle when people knock.
Young Siward	Young Siward is Siward's son. He is fighting with his father and is killed by Macbeth.	Heath	A heath is an empty and wild area of the countryside - Scotland has many heaths.	Physician	Macbeth's physician is a doctor who is also his servant. In the play, he is trying to cure Lady Macbeth's madness.
		Supernatural Soliciting	Supernatural means magical, and soliciting means to make an offer. Witches were able to look into the future using magic and then they would offer to tell people their fortune.		

The seed of Banquo, kings?	When Macbeth says this, he mean's Banquo's descendants. Banquo was a real man, and his descendants (Fleance's great great-great-grandchildren) would eventually become the kings of Scotland. Shakespeare knew this.

Maths

Knowledge Organiser Focus:

Foundation: Fractions, decimals, percentages, probability

I should already know:

How to convert basic fractions, decimals and percentages
How to calculate basic percentages

I will learn:

How to convert between any fraction, decimal and percent

How to increase and decrease by any percent

How to calculate different interest rates

How to read and create Venn diagrams

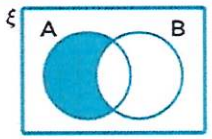
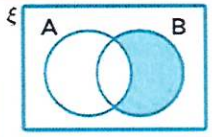
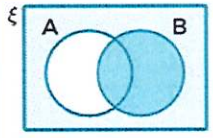
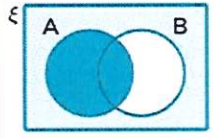
How to find the probability of combined events

This will help in the future:

Understanding the structure of numbers can help make calculations easier. Calculating probability is used in a multitude of careers.

Key Words

Fraction	Any part of a group, number or whole
Percentage	A fraction with a denominator of 100
Probability	The chance of something happening
Set	A collection of items or numbers
Outcome	The result of a trial of a probability experiment

Shaded Region	Set Notation	Description
	A∩B'	Just A (A intersection B') A and not B
	B∩A'	Just B (B intersection A') B and not A
	A'∪B	Not A, or B (the complement of A, union B) Not A, union B
	A∪B'	A, or Not B (A union the complement of B) A union Not B

Greater Depth Challenge

Can you apply set notation to triple-set Venn diagrams?

Further Reading

Sparx maths:
Set notation

Knowledge Organiser Focus:

Foundation: Fractions, decimals, percentages, probability

Fractions, decimals, percentages	
Question	**Answer**
What is a percentage?	A fraction with a denominator of 100
What is 0.1 as a percentage?	10%
What is 20% as a decimal?	0.2
What is 0.01 as a percentage?	1%
How do you convert from a fraction to a %?	Make an equivalent fraction with a denominator of 100

Percentages	
Question	**Answer**
How do you calculate % increase	Find the % and add it on
How do you calculate % decrease	Find the % and take it away
Compound interest	**original x % multiplier** number of years
Compound depreciation	**original x % multiplier** number of years
Convert a fraction to a decimal	Make the denominator 10 or 100 OR divide the numerator by the denominator
% increase	Find the % and add it on

Probability	
Question	**Answer**
What is an outcome?	The result of an experiment
What is a sample space?	A table showing all the possible outcomes of an event
What is theoretical probability?	The expected outcome of an experiment
What is relative frequency?	The actual outcome of an experiment
What does mutually exclusive mean?	Two events that cannot happen at the same time
What does ξ mean?	The Universal Set
What does ∩ mean?	Intersection (overlap) 'AND'
What does U mean?	Union (all together) 'OR'

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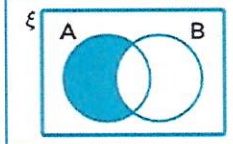
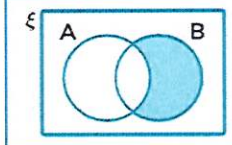
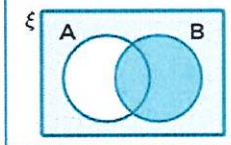
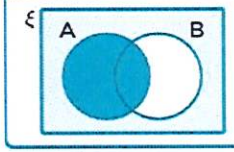
	A∩B'	Just A (A intersection B') A and not B
	B∩A'	Just B (B intersection A') B and not A
	A'∪B	Not A, or B (the complement of A, union B) Not A, union B
	A∪B'	A, or Not B (A union the complement of B) A union Not B

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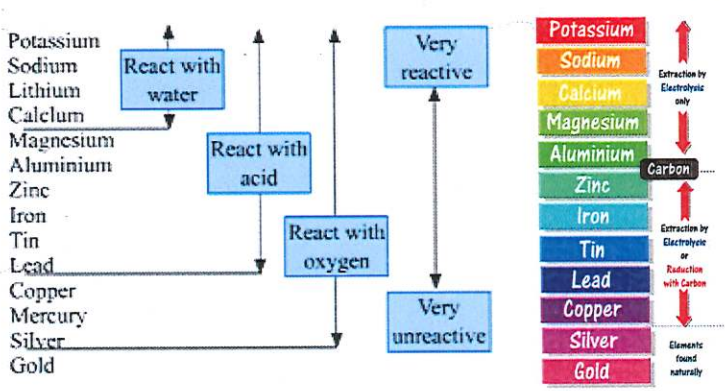
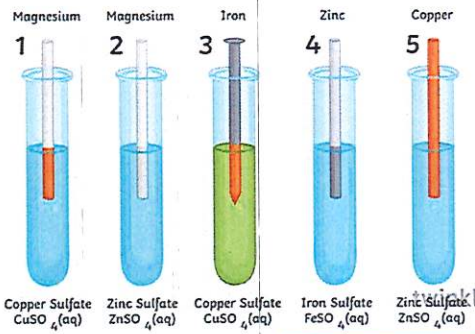
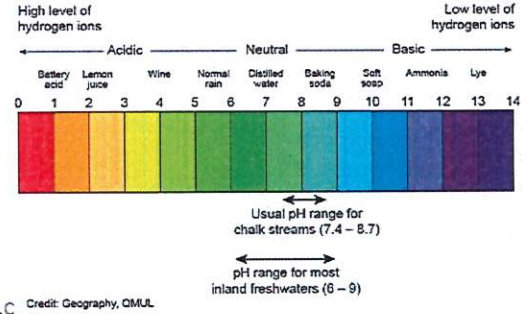
Science

The Learning





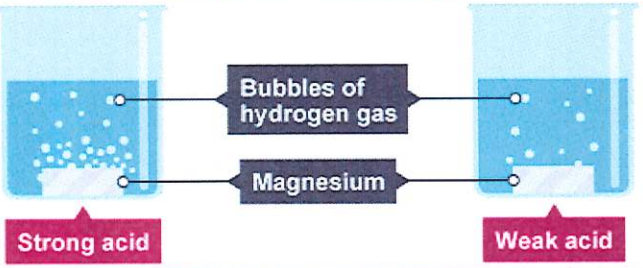


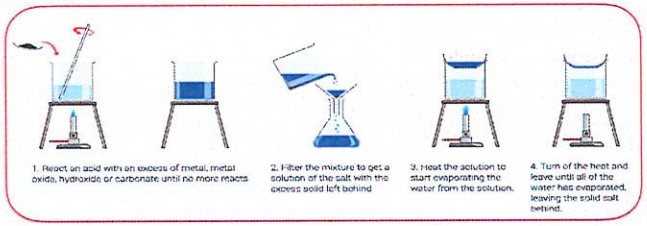
Credit: Geography, OMUL

Key terms – To use with GCSE Pod

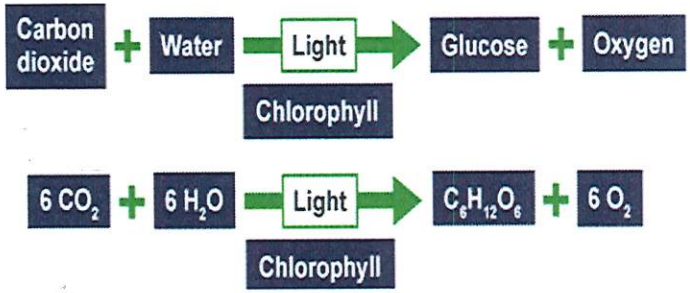
Reactivity	How reactive a substance is.
Reactivity series	A list of metals in the order of how reactive they are.
Displacement	A more reactive substance taking the place of a less reactive substance.
Salt	A compound formed from neutralisation reactions.
Hydrochloric acid	A type of acid that forms nitrate salts.
Sulphuric acid	A type of acid that forms sulphate salts.
Nitric acid	A type of acid that forms nitrate salts.
Crystallisation	A method of separation to separate a solid dissolved in a liquid
Filtration	A method of separation that separates molecules by size.
Acid	A substance with a pH of 1-6
Base	A substance with a pH of 8-14.
pH scale	A scale used to measure how acidic or alkaline a solution is.
Strong acid	An acid that has fully dissociated into ions in an aqueous solution.
Weak acid	An acid that has partially dissociated into ions in an aqueous solution.
H^+	The ions found in acids.
OH^-	The ions found in alkalis.
Electrolysis	Method of extraction for very reactive metals.
Oxidation	Gain of oxygen to form a compound.
Reduction	Loss of oxygen from a compound.
Extraction	A method of removing a substance from another.

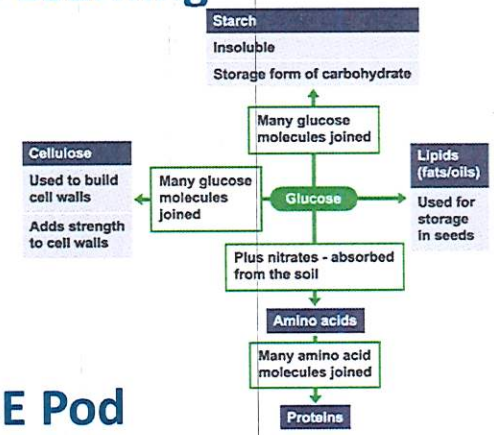
base	acid	salt
calcium hydroxide	hydrochloric acid	calcium chloride
magnesium oxide	nitric acid	magnesium nitrate
copper oxide	sulfuric acid	copper sulfate
ammonia	nitric acid	ammonium nitrate
potassium hydroxide	sulfuric acid	potassium sulfate

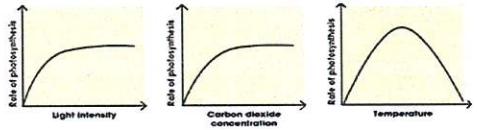




The Learning

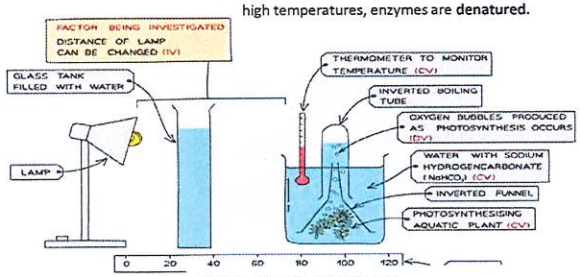






Light intensity
Without enough light, a plant cannot photosynthesise very quickly - even if there is plenty of water and carbon dioxide and a suitable temperature.
Increasing the light intensity increases the rate of photosynthesis, until some other factor – a **limiting factor** – becomes in short supply.

Temperature
The chemical reactions that combine carbon dioxide and water to produce glucose are controlled by **enzymes**. As with any other enzyme-controlled reaction, the rate of photosynthesis is affected by temperature.
At low temperatures, the rate of photosynthesis is limited by the number of molecular collisions between enzymes and substrates. At high temperatures, enzymes are **denatured.**



Carbon dioxide concentration
Carbon dioxide – with water – is one of the reactants in photosynthesis.
If the concentration of carbon dioxide is increased, the rate of photosynthesis will therefore increase.
Again, at some point, a factor may become limiting.

Limiting Factor	Management in Glasshouse
Carbon Dioxide Concentration	CO_2 is added to the air E.g. by burning a small amount of propane in a CO_2 generator
Light	Light can penetrate the glass Lamps provide light at night-time
Temperature	Glasshouses trap heat energy from sunlight, which warms the air Heaters and cooling systems can also be used to keep a constant optimum temperature, and air circulation systems make sure the temperature is even throughout the glasshouse

Key terms – For use with GCSE Pod

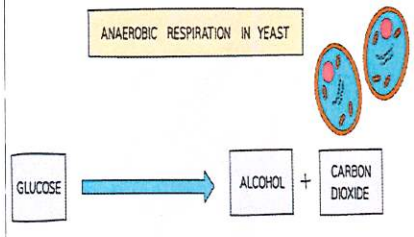
Photosynthesis	The process by which plants use sunlight to synthesise nutrients they need.
Photosynthesis equation	Carbon dioxide + water -> Glucose + oxygen
Chlorophyll	A substance that absorbs light and gives plants their green colour.
Chloroplasts	Contain chlorophyll and are the site of photosynthesis in a plant cell.
Light intensity	The amount of light.
Carbon dioxide	A gas that is used as a reactant in photosynthesis.
Glucose	A specific type of carbohydrate used by plants.
Factor	Something that can affect the rate of photosynthesis.
Potometer	A piece of equipment used to measure the rate of photosynthesis.
$C_6H_{12}O_6$	The chemical symbol for glucose.
Optimum temperature	The temperature where the rate of photosynthesis happens the most efficiently.
Enzyme	A protein that has a specifically shaped active site to break down substances.
Denatured	The active site of an enzyme irreversibly loses its shape and therefore cannot work.
Limiting factor	A factor that affects photosynthesis and is in short supply.
Starch	An insoluble form of carbohydrates. Used for storage of sugars.
Cellulose	A substance made from glucose that strengthens the cell wall.
Amino acids	Many amino acids join together to make proteins.
Lipids	Fats made from fatty acids and glycerol.
Insoluble	A substance that cannot dissolve in a solvent.
Soluble	A substance that can dissolve in a solvent.

The Learning

GLUCOSE + OXYGEN ⟶ CARBON DIOXIDE + WATER

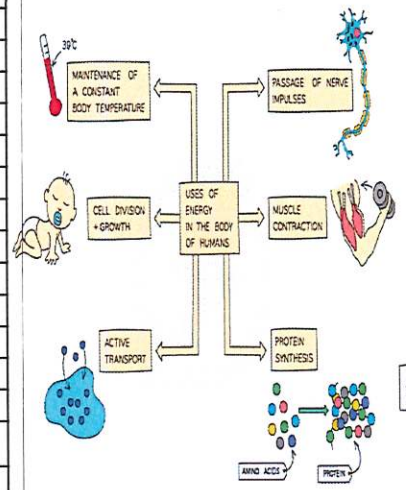
$C_6H_{12}O_6$ + $6O_2$ ⟶ $6CO_2$ + $6H_2O$

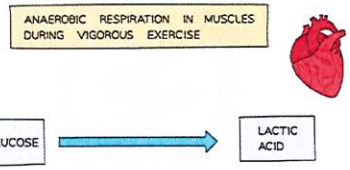
	AEROBIC	ANAEROBIC
OXYGEN	NEEDED	NOT NEEDED
GLUCOSE BREAKDOWN	COMPLETE	INCOMPLETE
PRODUCTS	CARBON DIOXIDE AND WATER	ANIMAL CELLS: LACTIC ACID YEAST: CARBON DIOXIDE AND ETHANOL
ENERGY RELEASED	A LOT	A LITTLE



Exercise

Heart rate **increases** during exercise. This increase in heart rate increases blood flow to working muscles. This is necessary because the muscles are respiring, so need glucose and oxygen for energy release. Blood also needs to flow faster to prevent a build up of carbon dioxide and lactic acid.





Key terms – To use with GCSE Pod

Aerobic equation	Oxygen + glucose -> Carbon dioxide + water
Anaerobic equation	Glucose -> Lactic acid
Respiration	A chemical reaction that releases energy.
Glucose	A specific type of carbohydrate used by plants.
$C_6H_{12}O_6$	The chemical symbol for glucose.
Lactic acid	Produced from anaerobic respiration and can be toxic to the body.
Glycogen	Stored from of glucose.
Liver	Converts excess carbohydrates and proteins.
Metabolism	The rate of which chemical reactions go on inside the body.
Oxygen	Diatomic molecule that is a reactant for respiration.
Exercise	Physical activity that increases the heart rate.
Heart rate	The number of beats of the heart per minute.
Lung volume	The amount of air the lungs can hold.
Breathing rate	The number of breaths per minute.
Urea	Compound created from waste in the body. Excreted in the urine.
Reactants	Theleft hand side of an equation.
Products	The right hand side of an equation.
Aerobic respiration	Repsiration that involves oxygen.
Anaerobic respiration	Respiration that does not involve oxygen.
Oxygen debt	The process of replacing the lost oxygen after anaerobic respiration.

The Learning

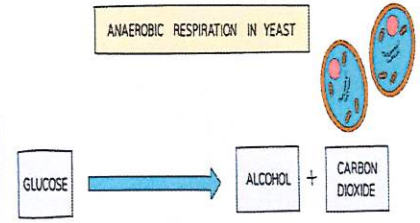
GLUCOSE + OXYGEN ⟶ CARBON DIOXIDE + WATER

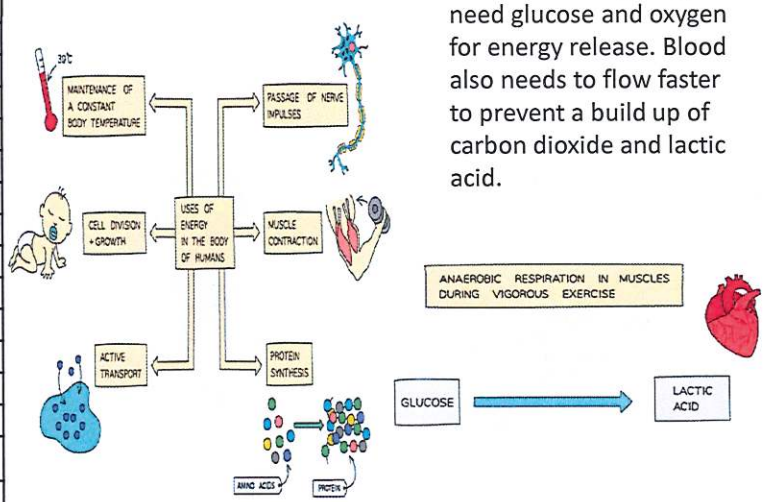
$C_6H_{12}O_6 + 6O_2 \longrightarrow 6CO_2 + 6H_2O$

	AEROBIC	ANAEROBIC
OXYGEN	NEEDED	NOT NEEDED
GLUCOSE BREAKDOWN	COMPLETE	INCOMPLETE
PRODUCTS	CARBON DIOXIDE AND WATER	ANIMAL CELLS: LACTIC ACID YEAST: CARBON DIOXIDE AND ETHANOL
ENERGY RELEASED	A LOT	A LITTLE

Key terms – To use with GCSE Pod

Aerobic equation	Oxygen + glucose -> Carbon dioxide + water
Anaerobic equation	Glucose -> Lactic acid
Respiration	A chemical reaction that releases energy.
Glucose	A specific type of carbohydrate used by plants.
$C_6H_{12}O_6$	The chemical symbol for glucose.
Lactic acid	Produced from anaerobic respiration and can be toxic to the body.
Glycogen	Stored from of glucose.
Liver	Converts excess carbohydrates and proteins.
Metabolism	The rate of which chemical reactions go on inside the body.
Oxygen	Diatomic molecule that is a reactant for respiration.
Exercise	Physical activity that increases the heart rate.
Heart rate	The number of beats of the heart per minute.
Lung volume	The amount of air the lungs can hold.
Breathing rate	The number of breaths per minute.
Urea	Compound created from waste in the body. Excreted in the urine.
Reactants	Theleft hand side of an equation.
Products	The right hand side of an equation.
Aerobic respiration	Repsiration that involves oxygen.
Anaerobic respiration	Respiration that does not involve oxygen.
Oxygen debt	The process of replacing the lost oxygen after anaerobic respiration.

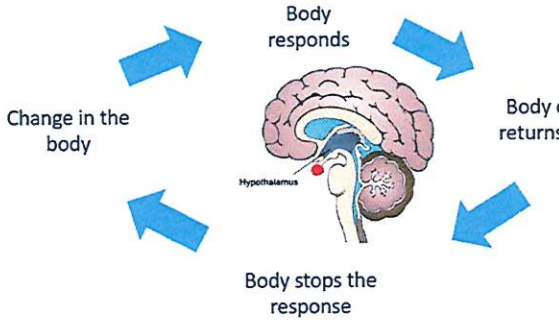


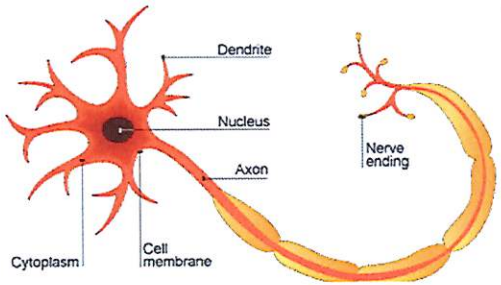


Exercise

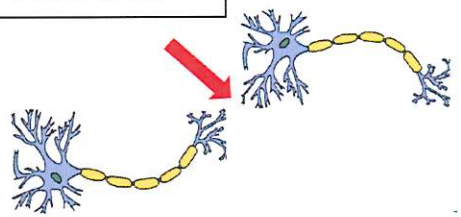
Heart rate **increases** during exercise. This increase in heart rate increases blood flow to working muscles. This is necessary because the muscles are respiring, so need glucose and oxygen for energy release. Blood also needs to flow faster to prevent a build up of carbon dioxide and lactic acid.

The Learning



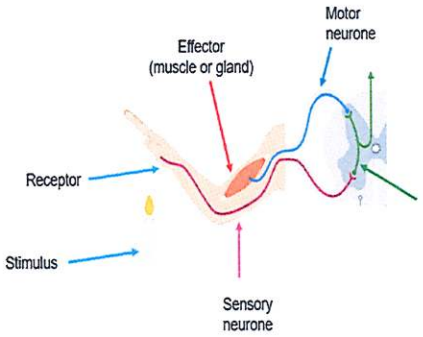


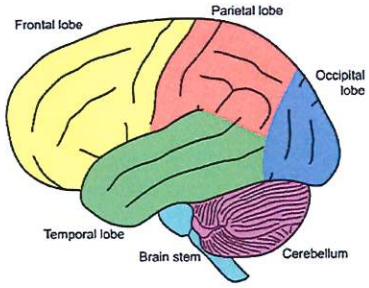
SYNAPSE

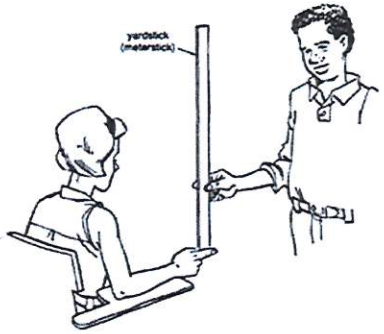


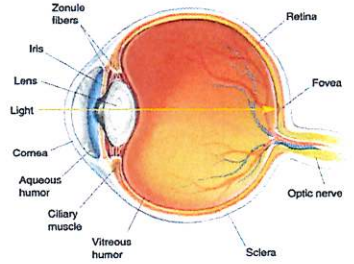
Key terms – To use with GCSE Pod

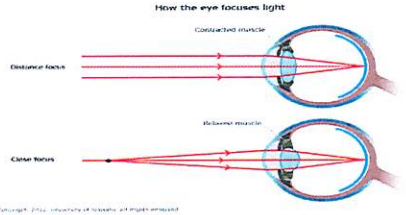
Stimulus	A factor that causes a response in an organism such as light or sound
Neurone	A specialised cell that conducts nerve impulses.
Nerve	A bundle of neurones that transmit messages between your brain and body
Axon	The long threadlike extension of a nerve cell that conducts nerve impulses
Dendrite	Short extensions of a neurone which branch to other neurones
Receptor	Nerve endings in your body which react to stimuli
Sensory neurone	Carries an electrical impulse from the receptor to the central nervous system
Relay neurone	Carries an electrical impulse inside the central nervous system
Motor neurone	Carries an electrical impulse from the central nervous system to the effector
Brain	The organ that controls all of the body's activities
Central Nervous System	Consists of the brain and spinal cord
Effector	A nerve ending that terminates in a muscle or gland
Gland	An organ in the body which produces chemicals in response to being stimulated
Impulse	An electrical wave carried along a neurone
Reflex	An automatic response that is designed to protect you from harm
Synapse	A small gap between two neurones where a neurotransmitter is produced
Cerebellum	The part of the brain that controls movement and balance
Cerebral Cortex	The outer most part of the brain that controls higher brain processes
Medulla	The part of the brain which controls the heart and breathing
Accommodation	The adjustment of the shape of the lens to control far or near vision











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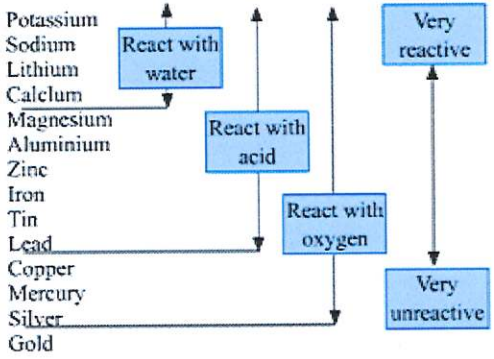
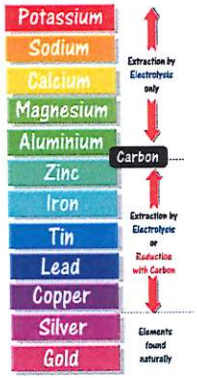
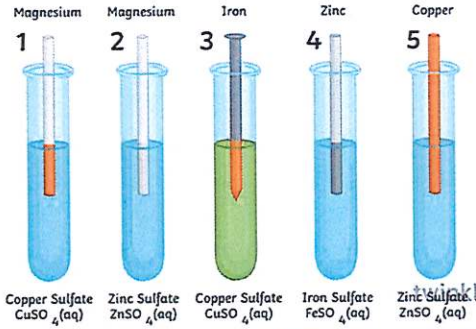
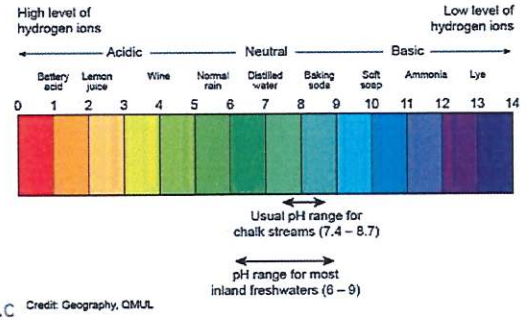




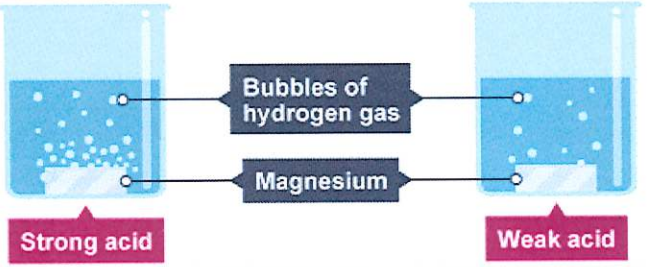


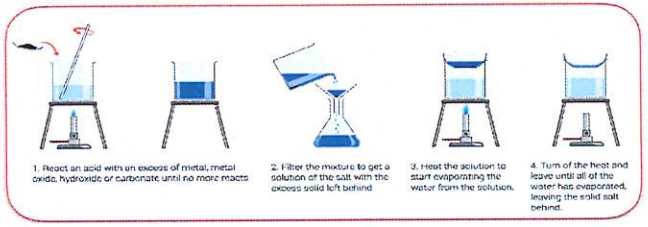


Key terms – To use with GCSE Pod

Reactivity	How reactive a substance is.
Reactivity series	A list of metals in the order of how reactive they are.
Displacement	A more reactive substance taking the place of a less reactive substance.
Salt	A compound formed from neutralisation reactions.
Hydrochloric acid	A type of acid that forms nitrate salts.
Sulphuric acid	A type of acid that forms sulphate salts.
Nitric acid	A type of acid that forms nitrate salts.
Crystallisation	A method of separation to separate a solid dissolved in a liquid
Filtration	A method of separation that separates molecules by size.
Acid	A substance with a pH of 1-6
Base	A substance with a pH of 8-14.
pH scale	A scale used to measure how acidic or alkaline a solution is.
Strong acid	An acid that has fully dissociated into ions in an aqueous solution.
Weak acid	An acid that has partially dissociated into ions in an aqueous solution.
H^+	The ions found in acids.
OH^-	The ions found in alkalis.
Electrolysis	Method of extraction for very reactive metals.
Oxidation	Gain of oxygen to form a compound.
Reduction	Loss of oxygen from a compound.
Extraction	A method of removing a substance from another.

base	acid	salt
calcium hydroxide	hydrochloric acid	calcium chloride
magnesium oxide	nitric acid	magnesium nitrate
copper oxide	sulfuric acid	copper sulfate
ammonia	nitric acid	ammonium nitrate
potassium hydroxide	sulfuric acid	potassium sulfate





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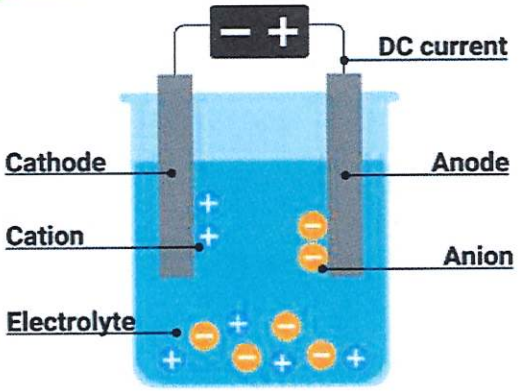
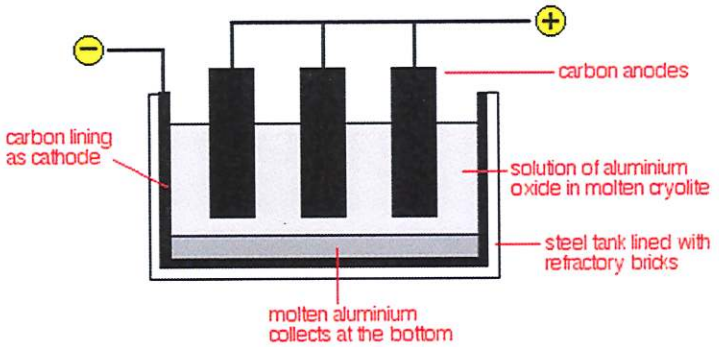




Cations go to the cathode. They need to gain enough electrons to make them neutral. So an Al^{3+} ion needs to gain three electrons:

$Al^{3+} + 3e^- \rightarrow Al$

Half-equations for non-metal anions are more difficult to balance. For example, chloride ions make chlorine gas. Most non-metal elements formed in electrolysis are **diatomic molecules** (eg Cl_2). For example:

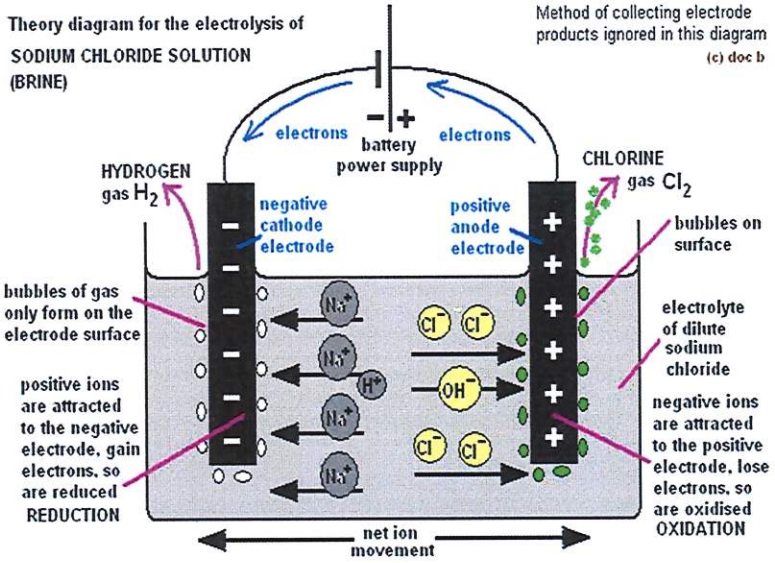
$Cl^- \rightarrow Cl_2$

Add in two electrons to balance the charge so that both sides have the same charge. The two electrons need to go on the right-hand side, so that both sides have an overall charge of -2. For example:

$2Cl^- \rightarrow Cl_2 + 2e^-$

Key terms – To use with GCSE Pod

Reactivity	How reactive a substance is.
Reactivity series	A list of metals in the order of how reactive they are.
Displacement	A more reactive substance taking the place of a less reactive substance.
Salt	A compound formed from neutralisation reactions.
Anode	The positive electrode in electrolysis.
Cathode	The negative electrode in electrolysis.
Ion	A charged particle. An atom that has gained or lost electrons.
Half equation	An ionic equation to describe what happens at each electrode during electrolysis.
Positive ion	An atom that has lost electrons and become positively charged.
Negative ion	An atom that has gained electrons and become negatively charged.
Electrolyte	A solution containing ions for electrolysis.
Molten	Ions are free to move in solution.
Aqueous	A solution where water is the solvent.
Brine	A high concentration of salt in water.
H^+	The ions found in acids.
OH^-	The ions found in alkalis.
Electrolysis	Method of extraction for very reactive metals.
Oxidation	Gain of oxygen to form a compound.
Reduction	Loss of oxygen from a compound.
Extraction	A method of removing a substance from another.



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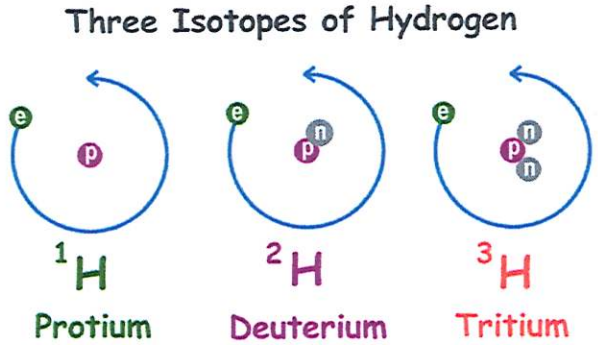
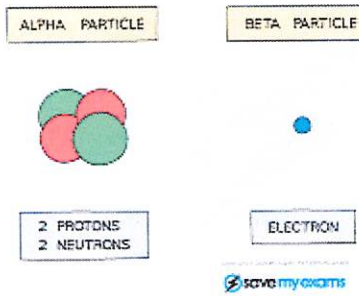
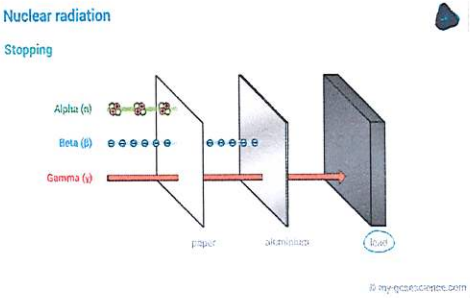
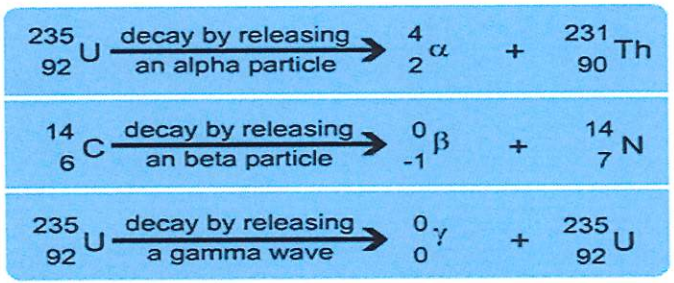


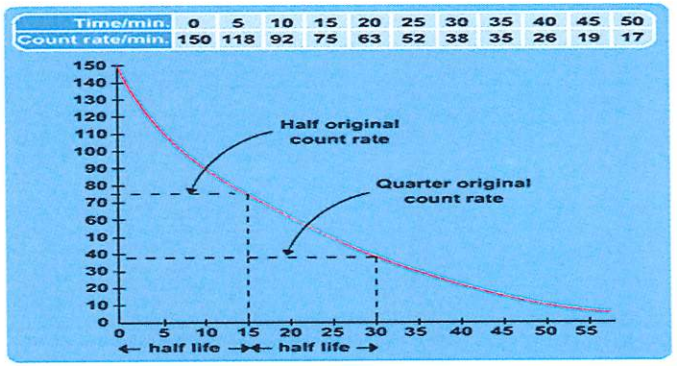




Key terms – For use with GCSE Pod

Alpha particle	A Helium-4 nucleus (2 protons and 2 neutrons)
Beta particle	A fast-moving electron emitted from an expelled neutron.
Gamma ray	Energy emitted from a nucleus as it drops to a lower energy level.
Half-life	The time it takes for the number of nuclei of a radioactive isotope in a sample to half.
Decay	The emission of energy in the form of ionising radiation.
Isotope	Elements with the same number of protons and electrons, but a different number of neutrons.
Proton	A positively charged sub-atomic particle found in the nucleus of an atom.
Electron	A negatively charged sub-atomic particle found in shells around the nucleus.
Neutron	A neutrally charged sub-atomic particle found in the nucleus of an atom.
Nucleus	The centre of an atom containing protons and neutrons.
Nuclear fusion	Atomic nuclei fuse to form a heavier nucleus with the release of energy.
Nuclear fission	A heavy nucleus splits spontaneously or on impact with another particle and releases energy.
JJ Thompson	Plum pudding model of an atom. Negative charges embedded in a positive sphere.
Ernest Rutherford	Proved atoms were mostly empty space by firing alpha particles at gold foil.
Neils Bohr	Discovered the electron and electron shells.
Geiger counter	A device used to measure the number of ionising particles.
Ionising radiation	Radiation emitted from an unstable nuclei that can dislodge outer electrons from atoms.
Potential energy	Energy that particles have due to their positions relative to each other.
Kinetic energy	Energy that particles have due to their motion relative to each other.
Internal energy	The internal energy of a body is the sum of the random distributions of kinetic and potential energies of all the molecules in the body.





Creative

Knowledge Organiser Focus: Technology - GCSE Y0 DT

I should already know:

- I have some knowledge of materials and their properties.
- I have some knowledge of metals, ferrous and non ferrous.

I will learn:

- Identify a range of metals, their properties and end uses.
- Demonstrate a range of practical skills with independence showing accuracy and good time management.
- Demonstrate working safely in a workshop environment.
- Create a coat hook made from aluminium.
- Understand a range of production techniques and how products are manufactured in industry.
- To know a range of metal finishing techniques.

This will help in the future:

This project will help develop understanding and practical skills within product manufacture and gain experience with prototyping. Useful for NEA practical making.

Key Words

Tough/durable/ strong	Able to withstand rough handling or treatment. Found in Iron, stainless steel.
Tensile strength	A material with good tensile strength resists breaking under tension. E.g. Steel, iron, aluminium.
Malleable	Can be deformed by beating, bending or pressing into shape. E.g. copper, gold, silver, tin.
Ductile	Can be deformed without losing toughness.
Manufacture	To make a product by hand or machinery.
Ferrous	A metal containing or consisting of iron.

CAD/CAM

CAD stands for **Computer Aided Design** CAM stands for **Computer Aided Manufacture**

Advantages of using CAD/CAM

- You can make changes to designs easily, without having to start again.
- You can look at your design in different views.
- You can look at how your design may look in different colours/materials.
- You can send your design to a CAM system to be manufactured.
- Files can be stored electronically, so can be sent from one location to another.
- It is more accurate.
- It can be repeated lots of time and is quick.

Greater Depth Challenge

Use the website below to generate a design brief. Practise your drawing skills to sketch out your design ideas and meet the brief!
The Idea Machine | 'The Idea Machine generates a randomised design brief for you to answer. You have 60 seconds to generate ideas.'

Further Reading

- ENGINEERING - DESIGN AND TECHNOLOGY (technologystudent.com))

Oasis Academy Don Valley

Knowledge Organiser: Y10 Technology

Technology Y10

Metal Family

BOYD EDUCATION

Ferrous

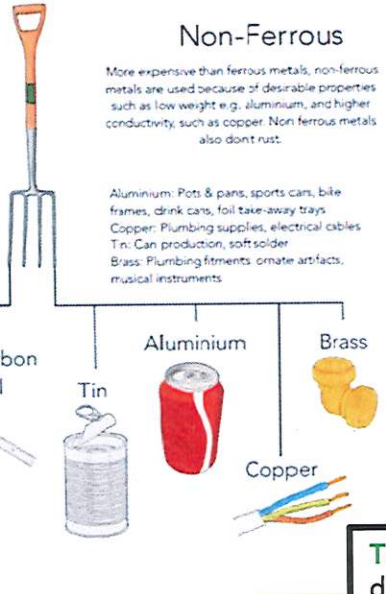
Ferrous indicates the presence of iron. Ferrous metals include steel and pig iron, with small amounts of carbon added, as well as alloys of iron, with other metals (such as stainless steel). Properties include magnetism and rusting.

Low carbon steel/Mild steel: Screws, girders, nails, car bodies
High carbon steel/Tool steel: Workshop tools, scissors, metal cutting tools
Iron/Cast iron: Kitchen pots, vices, manhole covers, post boxes

Non-Ferrous

More expensive than ferrous metals, non-ferrous metals are used because of desirable properties such as low weight e.g. aluminium, and higher conductivity, such as copper. Non ferrous metals also don't rust.

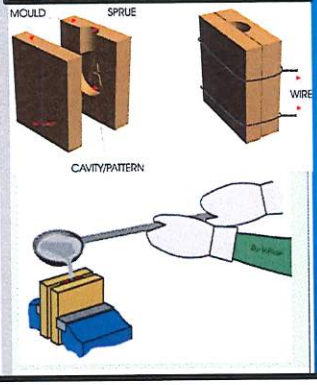
Aluminium: Pots & pans, sports cars, bike frames, drink cans, foil take-away trays
Copper: Plumbing supplies, electrical cables
Tin: Can production, soft solder
Brass: Plumbing fitments, ornate artifacts, musical instruments



Task: Research the working properties and end uses of pewter.

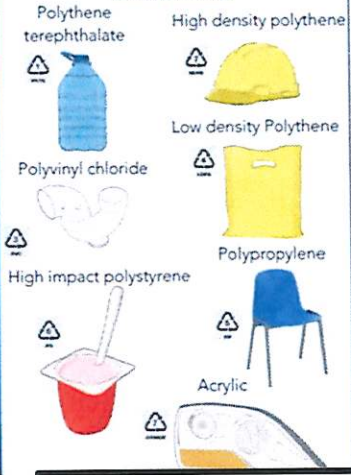
Polymer Family

BOYD EDUCATION



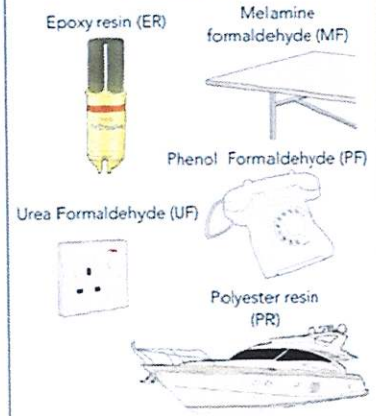
Thermoforming

Generally thermoforming polymers are more flexible, this is especially true if heated. Complex products can be formed and re-shaped multiple times.



Thermosetting

This type of polymer is generally stiffer and products made from thermosetting polymers can't be heated and reformed. They have good heat resistance and you will find chemicals stored in this type of polymer. They are also used as an insulator on electrical goods.



Task: Research and draw a diagram of the process of pewter casting.

Task: Have a look around you at items made from plastic , list items that are made from thermoforming and thermosetting plastics.

Task: Research and list as many careers and industries that use CAD/CAM .

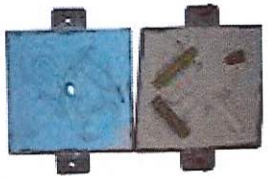
base metal: Pure, non-precious metals, such as iron, copper and tin. Commonly electro-plated with other metals such as chromium to achieve a higher quality finish.

alloy: Metals which are a mixture of two or more elements, at least one of which is a metal. The purpose of an alloy is to create a metal with improved properties over the original.

precious metals: Pure metals which are valued for their ductility, colour and lustrous natural finish and other properties. Platinum, gold and silver are commonly used in jewellery design.

Casting

In industry, casting can produce highly successful products. Some schools have sand casting facilities, which allow an alloy to be re-formed into a three-dimensional shape.



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Laser Cutter

Advantages:

Allows for repetitive flow production, with reliable, identical results.

Disadvantages:

Not suitable for foam-board due to the fumes released.

Photo courtesy of Pete Brown (Sfbickcom) - granted under creative commons licence - attribution

Mass Production	
Advantages	Disadvantages
• Large amounts made at once • All products are identical and to same standard • Using automation reduced human error	• Initial starting costs are high • If production line stops, the product can't be made • Workers become bored monitoring machines and repetitive tasks

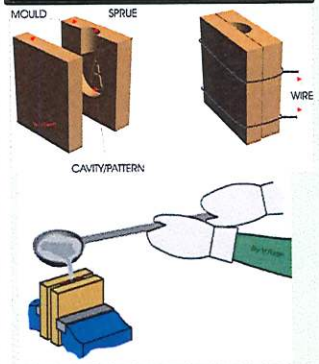
Batch Production	
Advantages	Disadvantages
• Lower cost than one-off • Jigs, moulds and templates help products look identical • Can have some variety	• High storage costs • Jugs, moulds and templates have to be checked • Workers can become bored on their station

Knowledge Organiser: Y10 Technology

Technology Y10

List the ferrous and non-ferrous metals

Task: Research the working properties and end uses of pewter.



Thermoforming thermosetting polymers

Task: Research and list as many careers and industries that use CAD/CAM .

Task: Research and draw a diagram of the process of pewter casting.

Task: Have a look around you at items made from plastic , list items that are made from thermoforming and thermosetting plastics.

Base metal:

Alloy:

Precious metals:

Casting:

Laser Cutter

Advantages:

Disadvantages:

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Mass production	
Advantages	Disadvantages

Batch production	
Advantages	Disadvantages

Knowledge Organiser Focus: Business

What is Market Segmentation?

Market Segmentation is the process of grouping potential customers together based on different factors. It is basically the method used by businesses to identify their target customer/market.

Markets can be segmented in different ways and some businesses choose to use more than one characteristic to specifically segment their market.

Explain each of these ways a market can be segmented…

☆ **Age** – This is basically how old the customer is. Businesses tend to segment their market into age brackets. Toys, for example, are aimed at younger audiences, potentially between ages 3 and 13.

☆ **Gender** – This is whether the target customers are typically going to be male or female. Make-up, for example, is targeted at females – this doesn't mean that males cannot buy it, it is just who the business is targeting.

☆ **Occupation** – Occupation means the job or career that the people within the target market may have. This could be a specific job, for example Gym equipment being targeted at Personal Trainers, or a more general group of jobs, Office Workers for example.

☆ **Income** – Some businesses segment their market based on how much money their potential customers make. Luxury branded items, for example, will be targeted at customers with more disposable (spare) income.

☆ **Geographic** – This is when businesses segment their market by their location. A local newspaper, for example, will segment their market to include only those in the area in which the newspaper reports.

☆ **Lifestyle** – Businesses could segment their market based on what their customers' lifestyle is like; this is basically their hobbies, their routines and their habits.

What is the purpose of Market Research?

The purpose of Market Research is initially to find out what customers want and need – this helps businesses develop products that are more likely to be successful. Market Research also helps understand customers' tastes and opinions and can change the design or specification of products based on the outcomes of the research. Finally, Market Research can also be used to gauge what products are already on the market and what competitors are doing.

How do customers vary (how are they different)?

Customers are different/vary because of:

- The amount of money they are able to spend
- The amount of money they are willing to spend (some older customers may have more money, but may not be willing to spend this money as readily as younger customers)
- The quantity of products/services they require
- The quality of products/services they require
- The location in which they want/can purchase items (some customers prefer to buy online, for example)
- The time in which they want to/can purchase items

What is Market Research?

Market Research is the process of finding out what customers want and what they need. Businesses typically carry out Market Research before developing a new product as well as during the testing of the product to get the opinions of their potential customers.

What Customer Feedback Techniques are available for business start-ups?

Customer Feedback Techniques are the methods a business uses to allow customers to tell them what they think about their products or services and can include:

- Social Media / Online Communities
- Websites with reviews
- Online surveys
- Customer comment cards
- Comments made to staff members
- Telephone/email surveys
- Email contact forms

Why are Customer Feedback Techniques useful for new business start-ups?

If things aren't going well for a business, customer feedback will give them the reasons why. Taking action could improve sales and help businesses meet customer wants/needs better. Customer feedback also makes people feel they are being listened to, so customer satisfaction will improve.

Knowledge Organiser Focus: Business

What are the benefits of Market Segmentation?

By segmenting their market, businesses are:

- Able to focus on the wants/needs of specific customers and more likely to meet these wants/needs.
- More likely to make sales because they've focused on specific groups of people (if they segment successfully).
- More able to focus their advertising and other marketing at the right groups of customers – if their market is segmented to include female customers, then the business could choose to advertise in magazines aimed at females, for example.
- More able to produce a specific customer profile, which is a portrait of the business's main target customer.

What is Secondary (desk) Market Research? Give example methods…

Secondary Research, sometimes called Desk Research, is when the business uses data or information that already exists. This is not tailor made for the business. Methods of Secondary Research include Internet research, books, newspapers and data already collected by competitors, the Government or other sources of statistics.

What are the drawbacks of Secondary (desk) Market Research?

The data that is used when completing Secondary Research is not unique and not specific to the business's needs, unlike when Primary Research is carried out. Secondary Research doesn't allow businesses to ask further questions to those that took part in the research either.

What are the drawbacks of Primary (field) Research?

Primary Research is usually more expensive to carry out than Secondary Research because the business is creating and analysing everything from scratch. This also means that Primary Research is more time consuming to carry out and is, therefore, slower to get results for the business.

What is Primary (field) Market Research? Give example methods…

Primary Research, sometimes called Field Research, is when businesses gather their own data and information. This can be done through surveys, questionnaires, focus groups, observations, consumer trials and 'taste tests'. The data gathered is unique to the business and does not already exist.

What are the benefits of Primary (field) Research?

Carrying out Primary Research means that the results are exactly what the business wants to find out, because this research has been tailor made for their own specific needs. Researchers can include everything the business wants to find out from their potential customers.

Knowledge Organiser Focus: Business

What is Market Segmentation?

What is the purpose of Market Research?

What are the benefits of Market Segmentation?

List examples of Market Segmentation Techniques?

How do customer vary?

What is secondary desk research?

Why are customer feedback techniques useful?

What are the drawbacks of secondary desk research?

What is Market Research?

What is Primary Research?

What are the Draw back of Primary Research

German

Knowledge Organiser Focus:

Deutsch HT2: Gesund bleiben

I should already know:
How to say what I do and don't like to do in my freetine

I will learn:
- To talk about food and meals
- To express and justify opinions about food
- To talk about a healthy lifestyle
- To discuss what you should do to stay healthy
- To confidently use 3 different tenses

This will help me in the future:
You need to talk about your hobbies in 3 tenses (past, present, future) as a GCSE topic.

'Snazzy Structures'

Try to use as many as possible to improve your German:

Verb Scarers	Opinion Phrases	Joining Words	Others
weil (because)	Meiner Meinung nach	jedoch	man kann...
obwohl (although)	Ich denke	deswegen	um...zu...
wenn (if)	Ich glaube	daher	es gibt...

Tenses:

Past Tense: Haben or Sein + Past Participle

ich habe	Information	gespielt gesehen gemacht
ich bin	Information	gegangen gefahren geblieben

Future Tense: Werden + Infinitive

ich werde er/sie wird wir werden	Information	essen trinken gehen bleiben.

Present Tense

Infinitive: spielen

spielen

ich spiele	wir spielen
du spielst	ihr spielt
er spielt	sie spielen
sie spielt	Sie spielen
es spielt	

You will need to use all 3 at GCSE!

Expressing both sides of an argument:

Auf der einen Seite
Auf der anderen Seite
Einerseits
Anderseits
In Großen und Ganzen
Meiner Meinung nach ...
Ich finde ....

Greater Depth:
I can use all three tenses (present, future, perfect) to talk about my hobbies.

Further Reading:
Use Quizlet to help improve your vocab. Tasks are set each week or you can go over past vocabulary. The ore you learn, the better your grades.

Deutsch HT2: Gesund bleiben

Tips to learn vocabulary:

- Test yourself – use the blank pages of your knowledge organiser to see what you can remember.
- Be strict on yourself with spelling, accents, capitalisation etc.!
- Use websites like Quizlet.com which create fun vocabulary games to help you revise.
- Use the words in sentences to help you remember the definitions! Make sure you know the words, what they mean, and how to use them!
- Practice!! Consistency is key – make time for vocabulary learning as often as possible. Practice vocabulary words <u>repeatedly</u>.

<u>Key Verbs</u>

Ich spiele	I play	Ich tanze	I dance
Ich lese	I read	Ich höre	I listen
Ich sehe	I watch	Ich sammele	I collect
Ich mache	I do	Ich faulenze	I relax
Ich finde	I find	Ich treibe Sport	I do sport
Ich reite	I ride	Ich gehe	I go
Ich fahre	I travel	Ich esse	I eat
Ich trinke	I drink	Ich mache	I do
Ich finde	I find	Ich kaufe	I buy
Ich besuche	I visit	Ich möchte	I would like

Deutsch HT2: Gesund bleiben

Essen und trinken

Das Frühstück / Mittagessen / Abendessen / Abendbrot essen wir um …
Ich esse / Wir essen …
auf der Terrasse
bei uns im Esszimmer
auf dem Weg zur Schule
vor dem Fernseher
Das hat … geschmeckt.
ekelhaft / schrecklich
köstlich / wunderbar / lecker
salzig / süß / würzig
auswählen
einkaufen
vorbereiten
das Brot
der Käse
die Kartoffelchips (pl)
die Suppe

Eating and drinking

We eat breakfast / lunch / dinner at …

I eat / We eat …
on the terrace / patio
at home in the dining room
on the way to school
in front of the TV
It tasted …
disgusting / dreadful
delicious / wonderful / tasty
salty / sweet / spicy
to choose
to buy, to shop
to prepare
bread
cheese
crisps
soup

die Hauptspeise
der Braten
die Currywurst
der Fisch
das Schnitzel
ein gemischter Salat
das Spiegelei(er)
die Wurst
(mit) Kartoffeln / Reis / Pommes
die Nachspeise
das Eis
das Gebäck
der Keks(e)
die Torte(n)
der Zucchinikuchen
der Pampelmusensaft
der Tee
die (Voll-)Milch

main course
roast (meat)
sausage with curry sauce
fish
schnitzel / escalope
mixed salad
fried egg
sausage
(with) potatoes / rice / chips
dessert
ice cream
baked goods / pastries
biscuit
gâteau / flan
courgette cake
grapefruit juice
tea
(full-fat) milk

Obst und Gemüse

das Obst
das Gemüse
die Gurke(n)
die Karotte(n)
der Kohl(e)
die Paprika(s)
die Tomate(n)

Fruit and vegetables

fruit
vegetables
cucumber
carrot
cabbage
pepper
tomato

die Zwiebel(n)
der Apfel (Äpfel)
die Banane(n)
die Birne(n)
die Erdbeere(n)
die Orange(n)
der Pfirsich(e)

onion
apple
banana
pear
strawberry
orange
peach

Deutsch HT2: Gesund bleiben

Lebst du gesund?	***Do you live healthily?***
Mein Lieblingssport ist …	*My favourite sport is …*
Fußball	*football*
Leichtathletik	*athletics*
Turnen	*gymnastics*
Mein Vorbild ist …	*My role model is …*
ein(e) Athlet(in)	*an athlete*
ein(e) Fußballspieler(in)	*a footballer*
ein(e) Schwimmer(in)	*a swimmer*
Er/Sie …	*He/She …*
ist begabt	*is talented*
trainiert hart	*trains hard*
hat viele Medaillen gewonnen	*has won lots of medals*
Für meine Fitness …	*To keep fit …*
gehe ich joggen	*I go jogging*
gehe ich schwimmen	*I go swimming*
mache ich Muskeltraining	*I do weight training*
Ich esse sehr gesund.	*I eat very healthily.*
Ich esse ziemlich ungesund.	*I eat quite unhealthily.*
Ich esse Obst und Gemüse.	*I eat fruit and vegetables.*
Ich esse täglich Fastfood.	*I eat fast-food every day.*
die Diät(en)	*diet*
übergewichtig	*overweight*

Key Verb: **essen = to eat**

Present:	Ich esse
	Er / sie isst
	Wir essen
Past:	Ich habe … gegessen
Future:	Ich werde … essen
	Ich möchte … essen

MODAL VERBS

Man soll ……. essen	You should eat ..
Man muss ….. essen	You must eat …
Man darf (nicht) ….. essen	You are (not) allowed to eat …

um ….. zu (+infinitive) = in order to …

um fit zu bleiben = in order to stay fit
um gesund zu bleiben = in order to stay healthy

Deutsch HT2: Gesund bleiben

Film und Fernsehen	***Film and television***
der Film(e)	*film, movie*
der Actionfilm(e)	*action movie*
der Fantasyfilm(e)	*fantasy film*
der Horrorfilm(e)	*horror film*
der Krimi(s)	*detective / crime film*
der Liebesfilm(e)	*romance*
der Science-Fiction-Film(e)	*sci-fi film*
der Thriller(–)	*thriller*
der Zeichentrickfilm(e)	*cartoon*
Ich sehe gern fern.	*I like watching TV.*
das Fernsehen	*television*
der Zuschauer(–)	*viewer*
die Fernsehsendung(en)	*TV programme*
die Dokumentation(en)	*documentary*
die Gameshow(s)	*game show*
die Komödie(n)	*comedy*
die Realityshow(s)	*reality show*
die Serie(n)	*series*
die Nachrichten (pl)	*the news*
Ich habe den Film ... gefunden.	*I found the film ...*
Ich habe die Sendung ... gefunden.	*I found the programme ...*
Der Film war ...	*The film was ...*
Die Sendung war ...	*The programme was ...*
Die Story war ...	*The story / plot was ...*
Die Schauspieler waren ...	*The actors were ...*
Die Charaktere waren ...	*The characters were ...*

Sport	***Sport***
Ski fahren	*to go skiing*
snowboarden	*to go snowboarding*
eislaufen	*to ice skate*
wandern	*to hike*
klettern	*to climb*
schwimmen	*to swim*
Fahrrad / Rad fahren	*to cycle*
Handball spielen	*to play handball*
Tennis spielen	*to play tennis*
Ich möchte ...	*I would like ...*
in den Bergen wandern	*to go hiking in the mountains*
an den Felsen klettern	*to go rock climbing*
Ich spiele gern (Fußball).	*I like playing (football).*
Ich (fahre) gern (Ski).	*I like (skiing).*
Ich (fahre) nicht gern (Rad).	*I don't like (cycling).*
Ich turne (sehr) gern.	*I (very much) like doing gymnastics.*
Ich spiele seit (fünf Jahren) (Tennis).	*I have been playing (tennis) (for five years).*
Ich trainiere (jeden Tag) im Verein.	*I train at the club (every day).*
Ich trainiere (einmal pro Woche) in einer Mannschaft.	*I train in a team (once a week).*
Ich möchte bestimmt (Skateboard fahren).	*I would definitely like to (go skateboarding).*
Ich möchte nie (snowboarden).	*I would never like to (go snowboarding).*
Ich habe (diese Woche) (Eislaufen) ausprobiert.	*I tried (ice skating) (this week).*
Ich habe (gestern) (Klettern) ausprobiert.	*I tried (climbing) (yesterday).*
Das war ...	*That was ...*

Deutsch HT2: Gesund bleiben

Oft benutzte Wörter	***High-frequency words***
jeden Tag	*every day*
jede Woche	*every week*
oft	*often*
ab und zu	*now and then*
nie	*never*
einmal pro Woche	*once a week*
zweimal pro Woche	*twice a week*
dreimal pro Monat	*three times a month*
viermal pro Jahr	*four times a year*
ausgezeichnet	*excellent*
blöd	*stupid, silly*
beeindruckend	*impressive*
fantastisch	*fantastic*
großartig	*great*
gruselig	*creepy, scary*
lang	*long*
langweilig	*boring*
lustig	*funny*
romantisch	*romantic*
schrecklich	*terrible*
spannend	*exciting, thrilling*
unterhaltsam	*entertaining*
im Sommer	*in summer*
im Winter	*in winter*
bestimmt	*definitely*
vielleicht	*perhaps*
nicht	*not*
nie	*never*

Bücher	***Books***
die Biografie(n)	*biography*
der Comic(s)	*comic book*
der Fantasyroman(e)	*fantasy novel*
der Krimi(s)	*detective / crime story*
die Liebesgeschichte(n)	*love story*
das Magazin(e)	*magazine*
das Science-Fiction-Buch(–Bücher)	*sci-fi book*
die Zeitschrift(en)	*magazine*
die Zeitung(en)	*newspaper*

Tips to learn vocabulary:

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Hospitality & Catering

Knowledge Organiser Focus:

Hospitality and Catering:
Unit 2 Hospitality and Catering in Action
AC1.2 Compare nutritional needs of different groups

I should already know:

- The functions of the macro and micro -nutrients.
- The sources of food of the macro and micro- nutrients.

I will learn:

- The nutritional needs of children.
- The nutritional needs of young adults.
- The nutritional needs of adults.
- The nutritional needs of older adults.
- The needs of specific diets –
- Vegetarians
- Vegans
- Diabetics
- Lactose intolerant
- Coeliac

Key Words

Lactose Intolerant	An inability to digest lactose, a type sugar found in milk. This causes diarrhoea and bloating after consuming milk or diary products.
Vegetarian	Someone who doesn't eat meat.
Diabetic	Diabetes develops when the body cannot use glucose properly due to lack of the hormone insulin.
Coeliac	A person is intolerant to the protein in gluten
Vegan	A person who doesn't eat any animal products.
Diet	The kinds of food that a person, animal, or community habitually eats.
Vegan	A person who doesn't eat any animal products.

• Dietary fibre (NSP)	
AC1.2 compare nutritional needs of specific groups	**Specific groups** • Different life stages • Childhood • Adulthood • Later adulthood • Special diets • Medical conditions • Activity levels

Greater Depth Challenge

Design a 3 course meal suitable for the following diets.
Vegetarian
Vegan
Lactose intolerant
Diabetic
Coeliac

This will help in the future:

This unit of work will provide students with knowledge of the needs of different age groups and special diets.

Many people require special diets or have food intolerances. It is vitally important in the hospitality industry that we cater for all different diets and requirements.

Further Reading

Try out some recipes at home:
Recipes - BBC Good Food
BBC Bitesize revision:
https://www.bbc.co.uk/bitesize/guides/zdr8y9q/revision/2

Vegetarians

Lacto vegetarians – do not eat meat or eggs but will eat dairy products such as milk. Lacto ovo vegetarians do not eat meat but will eat dairy products and eggs.

There may be a lack of high biological value HBV proteins in the diet, so vegetarians need to make sure that they combine different sorts of proteins to ensure they get all the essential amino acids.

Most of the iron needs to come from leafy green vegetables as there is no meat source.

Vitamin C is needed to help convert iron from plants so it can be used by the body.

Task: Create a leaflet to advise new kitchen staff in a restaurant on vegetarians and vegans.

VEGANS

Vegans do not eat any animal products which includes meat, poultry, fish, eggs and dairy products and honey.

- Protein and calcium are the main nutrients that need extra care to make sure enough is consumed.
- Protein from nuts and beans (pulses) and soya needs to be eaten in a variety of ways to make sure all the essential amino acids are consumed.
- Calcium from nuts, seeds and dark green vegetables is in low amounts so extra is needed along with vitamin D to help absorption.
- Iron from leafy green vegetables, chickpeas, lentils need to have a good intake of vitamin C to ensure the body can process the iron.
- Vitamin B from marmite and tofu.

Lactose intolerance

Avoid milk and milk products

Experience nausea, bloating, pain in the abdomen and diarrhoea

Eat goats cheese, soya milk, feta cheese, rice milk, which are all good sources of calcium

Make sure enough vitamin D is consumed to allow calcium to be fixed in the body

Soya and vegetable products replace milk in a number of foods, milk, cream, cheese, yoghurt can all be made from soya

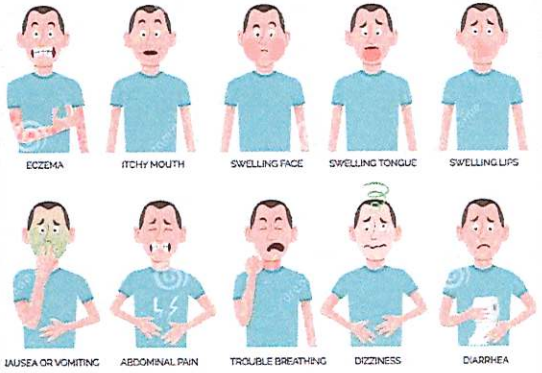
Task: Research what are the steps that you should follow if you notice someone has symptoms of a food allergy?

Task: What foods would not be suitable for the following people provide examples a.) Lactose intolerant b.) yeast intolerant c.) gluten intolerance.

Food allergy

Mouth swelling of lips, mouth and tongue
Eyes and nose stuffy nose,sneezing, swollen eyes, itchy red eyes
Skin rash, redness, itching swelling
Gut abdominal pain, colic, nausea vomiting, diarrhoea
Throat tightening of throat, difficulty swallowing, coughing, sounds when breathing in
Lungs short of breath,wheezing,coughing,chest pain
Circulation, low blood pressure, weak pulse, turning blue, dizziness fainting, chest pain
Perception sense of doom, panic, anxiety

Task: Make a poster showing the symptoms of food poisoning.



Food intolerance

Mouth ,may be sore, bad breath

Skin rash, redness, itching swelling eczema

Gut abdominal pain, bloating, heartburn, cramping, vomiting, diarrhoea or constipation

Lungs chronic cough, wheezing

Head headache, brain fogginess, migraines

Perception irritable, moody, panic, depression

Major allergens

Must be highlighted in ingredients list

Task: Research your favourite catering establishments e.g. restaurant, café, takeaway. What dishes do they offer for customers with special diets.

Vegetarian Diet

Lactose intolerance

Task: Create a leaflet to advise new kitchen staff in a restaurant on vegetarians and vegans.

Task: Research what are the steps that you should follow if you notice someone has symptoms of a food allergies?

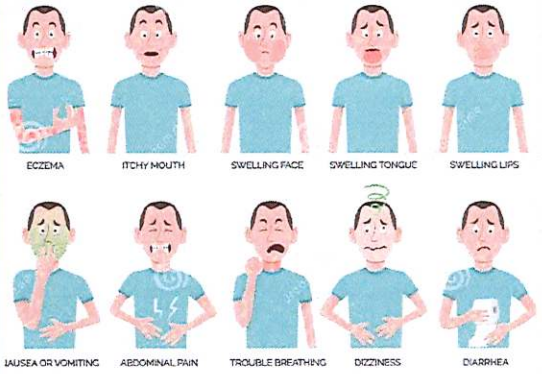
Food intolerance symptoms:

Vegn Diet

Task: What foods would not be suitable for the following people provide examples a.) Lactose intolerant b.) yeast intolerant c.) gluten intolerance.

Food allergy symptoms :

Task: Make a poster showing the symptoms of food poisoning.



Major allergens:

Task: Research your favourite catering establishments e.g. restaurant, café, takeaway. What dishes do they offer for customers with special diets.

Music

Introduction to Band Skills and Sequencing

Chord	Two or more notes played at the same time
Riff	A short repeated pattern
Bass line	Lowest pitched part
Passing notes	Notes played between notes from a chord, usually in a bass line or melody
Drum fill	A different drum beat usually played just before a new section in a song starts
Roll	Rapidly played beats on a drum
Strumming	Playing strings on a guitar by sweeping across several strings at once
Picking	Playing one string at a time on a guitar
Slides	Moving gradually from one note to the next
Contrast	Difference
Independent practice skills	1. Repeat 2. Slow it down 3. Play the hardest part first
Ensemble rehearsal skills	1. Listen 2. Only play when everyone plays 3. Lost? Stop, listen and come back in.
Instrumental Parts	
Guitar techniques	Strumming, picking, slides
Guitar parts	Slides, riff, chords
Bass techniques	Slap bass, picking
Bass parts	Bass line, passing notes
Piano techniques	Pedalling, broken chords, block chords
Piano parts	Chords, bass lines, riffs, melodies, harmonies
Vocal techniques	Vibrato, melisma
Vocal parts	Melody, harmony, ad libs, rapping
Drum techniques	Roll, fill,
Drum parts	Common drum rhythm: Hi-hat – quavers Snare drum – plays on beats 2 and 4 Bass drum – plays on beats 1 and 3
Music Technology	
Sequencer	Software that records, edits and plays back music
Edit	Changing parts to improve them
Quantise	Mechanically forcing notes in time with the pulse
Loop	Repeating a section electronically
Copy and paste	Taking a replica of a section and putting it somewhere else
Trim	Shortening a recorded section
Split	Cutting a recorded section in to two
Midi	Electronic musical communication system
Audio	Recording of live sound
Musical Structure	
Chorus	Section of the song that repeats. Usually has a higher pitch and thicker texture.
Verse	Section of the song that tells the story. Lyrics change.

Intro	Section of a song before the singer or main melody begins
Outro	Section of a song at the end after the main melody ends
Bridge/middle 8	Contrasting section preparing for the return of the chorus
Contrast	Difference
Musical Elements	
Articulation	How the notes are played: legato and staccato
Structure	The sections in a piece of music
Dynamics	How loud the music is
Rhythms	How long or short the notes are
Pitch	How high or low the music is
Tempo	How fast or slow the music is
Texture	How many parts are playing: thick or thin

RS