Sheffield Park Academy
The best in everyone™
Part of United Learning

Knowledge Organiser

Term 2

Name: .....

Tutor Group: .....

Tutor & Room: .....

AMBITION • KNOWLEDGE • DETERMINATION

Stick your Timetable here

CONTENTS

How do I complete Knowledge Organiser homeworks?

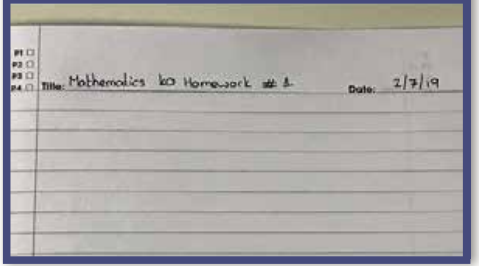
You will be set a MINIMUM of 2 Knowledge Organiser homeworks in every subject each half term

STEP 1

Identify what words/ definitions/facts you have been asked to learn.

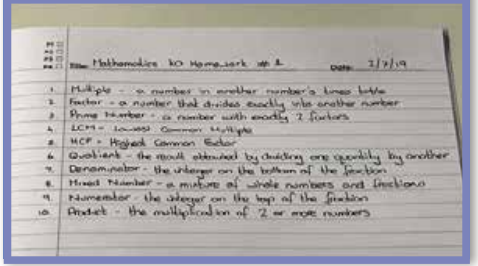
STEP 2

Write today's date and the title from your Knowledge Organiser.



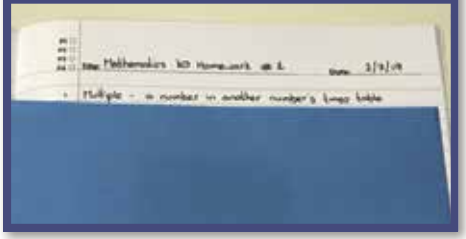
STEP 3

Write out the keywords/definitions/facts you have been set in FULL.



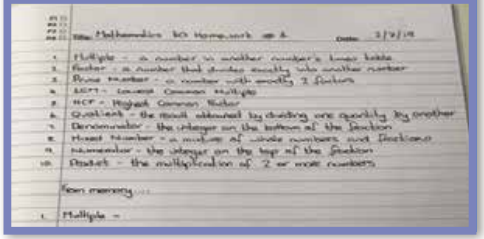
STEP 4

Cover the definitions in your SELF-QUIZZING BOOK, apart from the first. **Read it, Cover it, Say it** in your head, check it… REPEAT until confident.



STEP 5

Cover up ALL the definitions/facts and write them out from memory in your SELF-QUIZZING BOOK.



STEP 6

Check your answers and correct where required. Repeat Steps 4 to 6 until you are confident.

You will be **tested** on the words/definitions/ facts as a starter activity in your lesson on the day that the homework is due.

This will be completed in your normal exercise book and you will mark it in class.

Your Knowledge Organiser and Self-Quizzing Book

Knowledge Organisers

Knowledge Organisers contain critical, fundamental knowledge that you MUST know in order to be successful in Year 11 and subsequent years.

They will help you recap, revisit and revise what you have learnt in lessons in order to move the knowledge within from your short-term memory to long-term memory.

Self-Quizzing Book

This is the book that all Knowledge Organiser homework is to be completed in.

You must follow the simple rules as to how they are to be used.

You **must** bring your Knowledge Organiser and Self-Quizzing Book to **every** lesson and place it on your desk at the beginning of each lesson.

You **must** keep all of your Knowledge Organisers and Self Quizzing Books because the fundamental knowledge required in Year 11 will also be required in years to come.

Knowledge Organisers are **NOT** a replacement for revision guides but they include the fundamental knowledge that ALL students in Year 8 require.

Keywords.

1.Formal Elements: Line, Tone, Colour, Pattern, Shape, Texture and Form

2.Line: Line is the path left by a moving point.

3.Shape: Shape is an area enclosed by a line.

4.Tone: This refers to the lightness or darkness of something.

5.Pattern: A design that is created by repeating lines, shapes, tones or colours.

6.Surface texture: Refers to the surface quality in a work of art.

7.Two Dimensional: Having its elements organised in terms of a flat surface.

8.Sgraffito: A technique used in painting which consists of putting down a preliminary surface, covering it with another, and the scratching the superficial layer so that the pattern or shape below appears.

9.Media: The material used to create artwork.

10.Technique: The way tools and media are used to create artwork.

11.Composition: This is the way an object is placed or positioned on a page.

12.Lino Printing: A form of block printing that involves carving a pattern or design into a vinyl surface.

YEAR 11 ART KNOWLEDGE ORGANISER – UNIT 3 STREET

Sketchbook

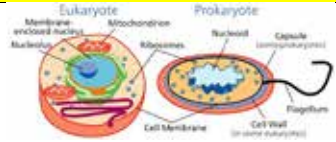
- Artist research
- Experiment with a range of materials.
- Experiment with colour, line, shape, space.
- Annotations to show reflections on their work and that of others.

Command Words.

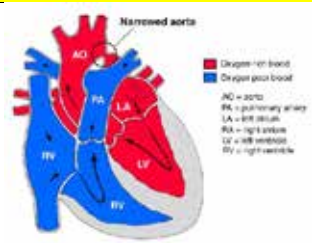
1. **Research**: The process of solving problems and finding facts in an organised way.
2. **Analyse:** Identify several relevant factors, show how they are linked, and explain the importance
3. **Method :** A procedure, technique, or way of doing something
4. **Evaluation:** Bring together all of your information and make a judgement on the Importance or success of something.
5. **Generate Ideas:** The process of creating, developing and communicating abstract, concrete or visual ideas.
6. **Develop:** To grow or change into a more advanced or stronger form or idea.
7. **Refine:** To make improvements to the idea.

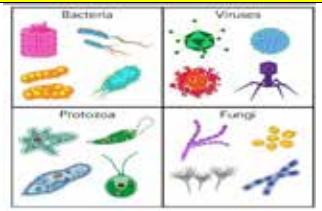
	B1	Microscopy	
	Key word	**Definition**	
1	Organelle/ Sub-cellular structures	An organelle is a subcellular structure that has one or more specific jobs to perform in the cell.	
2	Light Microscope	A light microscope is a type of microscope that is commonly used in school. This generates magnified images of small objects.	
3	Electron microscopes	They produce higher-resolution images and magnification than standard light microscopes.	

	B1	Cells	
	Key word	**Definition**	
1	Cells	Cells are the basic building blocks of all living things.	
2	Eukaryotic Cells	Cell with a nucleus.	
3	Prokaryotic Cells	Cell without a nucleus.	
4	Mitochondria	Where respiration takes place to release energy.	
5	Ribosomes	Where proteins are made.	

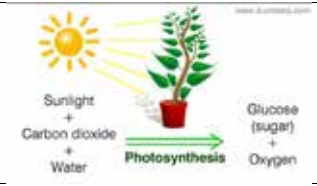


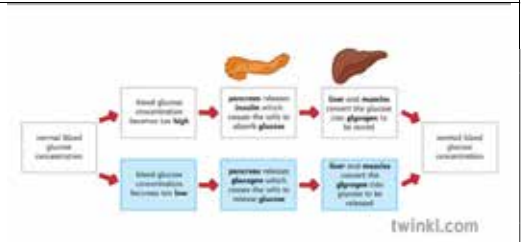
	B2	Organisation	
	Key word	**Definition**	
1	Enzyme	Protein with an active site of a specific shape which speeds up reactions.	
2	Xylem	Plant tissue that transports **water** and dissolved mineral ions **up** the plant.	
3	Phloem	Plant tissue that transports **sugars up** and **down** a plant.	
4	Stomata	Small holes underneath the leaf to allow gases to move in and out of the leaf.	
5	Guard cells	Cells that open and close the stomata to reduce water loss.	

	B2	Organisation	
	Key word	**Definition**	
1	Aorta	Major artery that carries **oxygenated** blood from the heart to the body cells.	
2	Vena cava	Major vein that carries **deoxygenated** blood from the body cells to the heart.	
3	Artery	Blood vessel that carries blood **away** from the heart.	
4	Vein	Blood vessel that carries blood **into** the heart.	
5	Benign tumour	Growths of abnormal cells which are contained in one area.	
6	Malignant tumour	Cancers that invade neighbouring tissues and spread to different parts of the body.	

	B3	Infection and Response	
	Key word	**Definition**	
1	Communicable disease	Infection or a disease that you can ''catch'' from someone.	
2	Pathogen	Microorganism that causes disease, e.g., bacteria, fungi, virus, protist.	
3	Antibodies	Produced by white blood cells to help kill pathogens.	
4	Placebo	Fake drug.	
5	Vaccination	Inserting small amounts of dead or inactive forms of a pathogen to stimulate antibody production.	

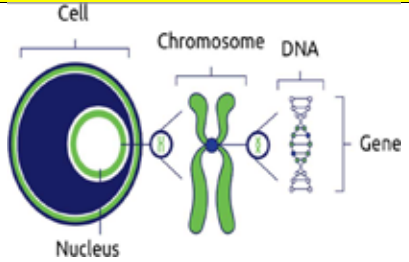
	B3	Infection and Response (Triple^)	
	Key word	**Definition**	
1	Monoclonal antibodies	Antibodies specific to one binding site on one protein antigen.	
2	Hybridoma	A combination of a lymphocyte with a tumour cell.	
3	Physical defence	Plant defence responses to resist invasion of microorganisms, e.g., tough waxy cuticle.	
4	Chemical defence	Plant defence responses to resist invasion of microorganisms, e.g., poisons.	

	B4	Bioenergetics	
	Key word	**Definition**	
1	Photosynthesis	The process by which plants make glucose using carbon dioxide, water and sunlight.	
2	Respiration	The process by which **energy** is **released.**	
3	Metabolism	All the chemical reactions in a cell or the body.	
4	Aerobic respiration	Respiration where oxygen is used to release lots of energy.	
5	Anaerobic respiration	Respiration where oxygen is **not** used and releases only small amount of energy.	

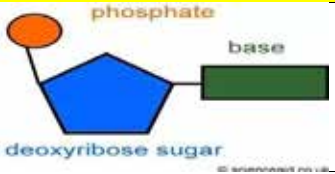
B5		Homeostasis	
Key word		**Definition**	
1	Homeostasis	The regulation of internal conditions to maintain optimum conditions in response to changes.	
2	Stimulus	A change in the environment.	
3	Insulin	Released from the pancreas in response to high blood glucose levels. It causes glucose to be converted into glycogen for storage in the liver.	
4	Glucagon	Released from the pancreas in response to low blood glucose levels and causes glycogen to be broken down into glucose and released back into the blood.	
5	Type 1 diabetes	When the pancreas does not produce enough insulin.	
6	Type 2 diabetes	When the body cells no longer respond to insulin.	

B5		Homeostasis (Triple T)	
Key word		**Definition**	
1	Myopia	Short-sightedness.	
2	Hyperopia	Long-sightedness.	
3	Cerebral cortex	The outer part of the brain responsible for intelligence, language, memory and consciousness.	
4	Medulla	Controls unconscious activities such as heart rate and breathing rate.	
5	Cerebellum	Controls balance, co-ordination of movement and muscular activity.	

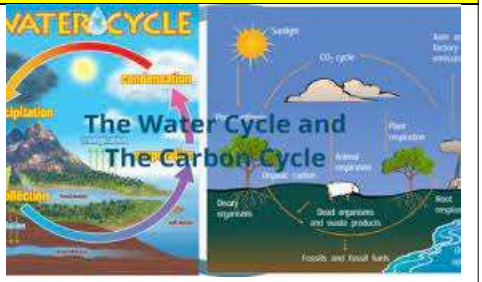
B6		Reproduction and Variation	
Key word		**Definition**	
1	Sexual reproduction	Reproduction involving two parents (one male and one female) where gametes fuse together.	
2	Asexual reproduction	Involves only one parent with no fusion of gametes.	
3	Gene	A small section of DNA on a chromosome which codes for a protein.	
4	Mutation	A change in the DNA.	
5	Genome	The entire set of genetic material of an organism.	
6	Natural selection	A process which gives rise to phenotypes best suited to their environment.	
7	Extinction	There are no remaining individuals of a species still alive.	



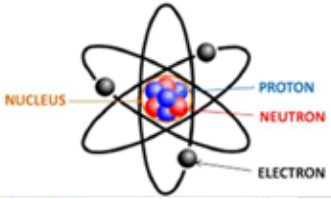
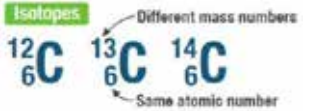
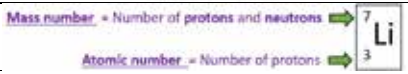
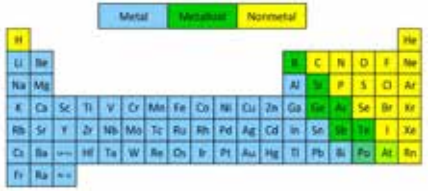
B6		Reproduction and Variation (Triple T)	
Key word		**Definition**	
1	Speciation	Formation of a new species through natural selection from an isolated population.	
2	Nucleotide	Sugar + phosphate + base.	
3	Cuttings	A simple method used by gardeners to produce many genetically identical new plants from a parent plant.	

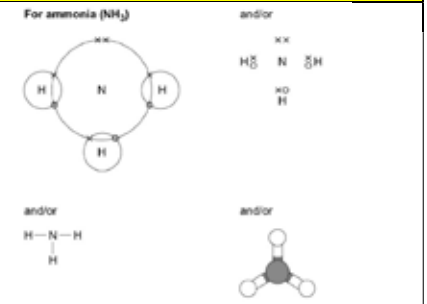
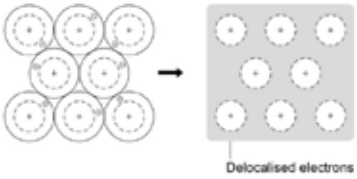
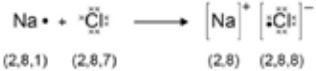
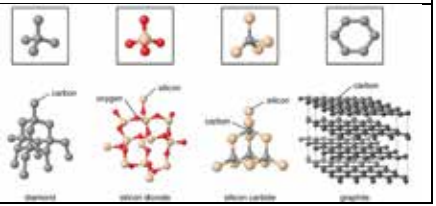


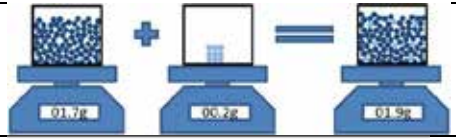
B7		Ecosystems and Relationships	
Key word		**Definition**	
1	Ecosystem	Interaction of a community of living (biotic) and non-living (abiotic) parts of their environment.	
2	Producer	Starts off a food chain. Usually, green plants or algae that photosynthesise. Eaten by primary consumers.	
3	Predator	Consumer that kills and eats other animals.	

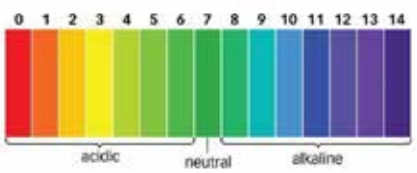
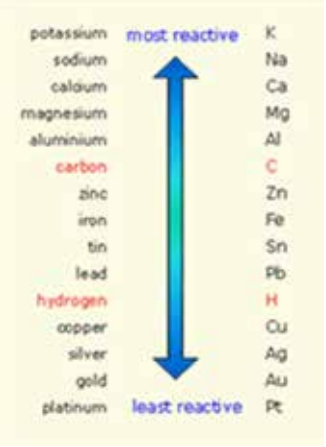
	B7	Cycles and Impact	
1	Pollution	Can occur on land, in water, in the air. Pollution kills plants and animals which reduces biodiversity.	
2	Carbon cycle	Returns carbon from organisms to the atmosphere as carbon dioxide to be used by plants in photosynthesis.	
3	Water cycle	Provides fresh water for plants and animals on land before draining into seas. Water is continuously evaporated and precipitated.	
4	Food security (T)	Having enough food to feed a population.	

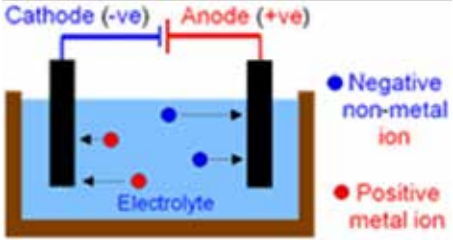
Knowledge Organiser	
Deficiency disease	Under nutrition A disease caused by the lack of an element in the die,
Excess	Over nutrition The amount of nutrients exceeds the amount required for normal growth, development, and metabolism.
Special diet	A special diet is **one that cannot be selected freely from the main choices available**. This could be due to an allergy, intolerance or other medical need;
Vegetarian	A person who does not eat meat or fish, and sometimes other animal products, especially for moral, religious, or health reasons.
Lacto Vegetarian	A person who abstains from eating meat and eggs
Lacto ovo vegetarian	A person who eats vegetables, eggs, and dairy products but who does not eat meat.
Vegan	A person who does not eat any food derived from animals and who typically does not use other animal products.
Coeliac Disease	A disease in which the small intestine is hypersensitive to gluten, leading to difficulty in digesting food.
Food allergy	A food allergy is **when the body's immune system reacts unusually to specific foods**
Food intolerance	A food intolerance is **difficulty digesting certain foods and having an unpleasant physical reaction to them**

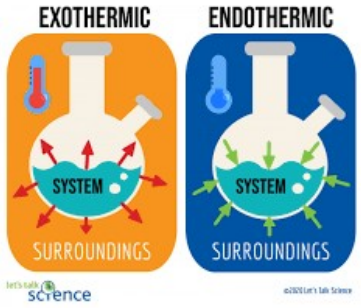
	C1	Atomic Structure and the Periodic Table	
	Key word	**Definition**	
1	Proton	Protons have a charge of +1 and mass of 1.	
2	Electron	Electrons have a charge of -1 and mass of almost 0.	
3	Neutron	Neutrons have a charge of 0 and a mass of 1.	
4	Nucleus	Protons and neutrons are in the centre of the atom, making up the nucleus. Electrons orbit the nucleus.	
5	Isotopes	An atom with the same number of protons but different number of neutrons.	
6	Atomic number	The number of protons in an atom's nucleus.	
7	Atomic mass	The mass of protons and neutrons in an atom.	
8	Neutral atom	An atom with equal number of protons and electrons.	
9	Shells	An electron shell is the outside part of an atom around the atomic nucleus.	
10	Mendeleev	Mendeleev made an early periodic table (groups/periods).	
11	Alkali Metals	Group 1 metals - very reactive (due to single electron in outer shell).	
12	Halogens	Group 7 non-metals - very reactive (due to having 7 electrons in outer shell)	

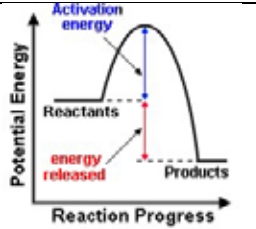
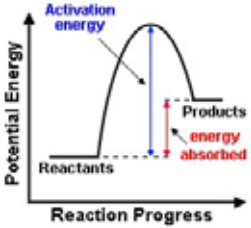
	C2	Bonding and Structure	
	Key word	**Definition**	
1	Covalent bond	A shared pair of electrons between two non-metals.	
2	Metallic bond	The bonds present in metals between the positive metal ions and negatively charged electrons.	
3	Ionic bond	A metal atom loses electron(s) to form a positively charged ion and a non-metal gains these electron(s) to form a negatively charged ion. An ionic bond is formed between the oppositely charged ions.	
4	Giant covalent structure	A three-dimensional structure of atoms that are joined by covalent bonds. Some examples are diamond, silicon dioxides and graphite.	

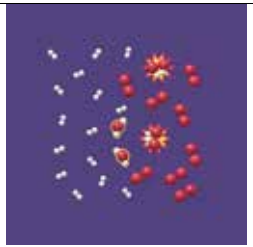
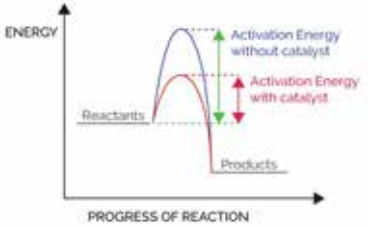
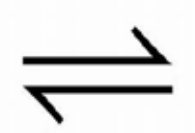
	C3	Quantitative Chemistry	
	Key word	**Definition**	
1	Mole	Chemical amounts are measured in moles. The mole is the unit for amount of substance.	
2	Conservation of mass	The law of conservation of mass states that no atoms are lost or made during a chemical reaction so the mass of the products equals the mass of the reactants.	
3	Concentration	The amount of substance (e.g. the mass) in a certain volume of a solution.	$\text{concentration in } g/dm^3 = \frac{\text{mass of solute in } g}{\text{volume in } dm^3}$
4	Actual yield (T)	The amount of product actually produced by a reaction.	
5	Atom economy (T)	The measure of the amount of starting materials that end up as useful products.	Calculation of Atom Economy $\text{atom economy} = \frac{\text{mass of atoms in desired product}}{\text{mass of atoms in reactants}} \times 100\%$

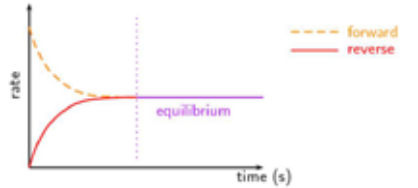
	C4	Chemical Reactions	
	Key word	**Definition**	
1	Acid	Acids produce hydrogen ions (H^+) in aqueous solutions. They have a pH range of 0-6.	
2	Alkali	Alkalis produce hydroxide ions (OH^-) in solutions. The have a pH range of 8-14.	
3	Displacement	A chemical reaction in which a more reactive element displaces a less reactive element from its compound.	

4	Oxidation	A reaction involving the gain of oxygen. Oxidation is the loss of electrons.	HT: OILRIG e.g. $2HCl + Mg \rightarrow MgCl_2 + H_2$ Magnesium is oxidised $Mg \rightarrow Mg^{2+} + 2e^-$
5	Reduction	A reaction involving the loss of oxygen. Reduction is the gain of electrons. Reduction with carbon: Metals less reactive than carbon can be extracted from their oxides by reduction with carbon.	
6	Electrolysis	The splitting up of an ionic compound using electricity. The electric current is passed through a substance causing chemical reactions at the electrodes and the decomposition of the materials.	

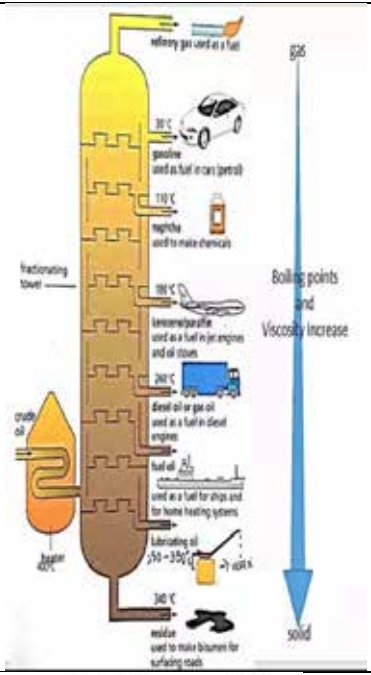
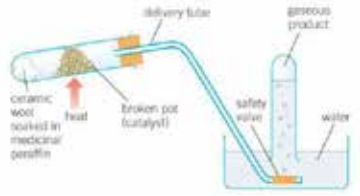
	C5	Energy Changes	
	Key word	**Definition**	
1	Exothermic	In some reactions more energy comes **out** than goes in. e.g., combustion	
2	Endothermic	In some reactions more energy goes **in** than comes out. e.g., thermal decomposition	
3	Activation Energy	The energy needed to start a reaction.	

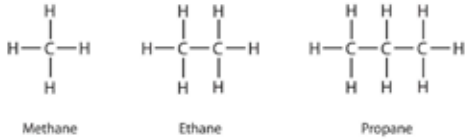
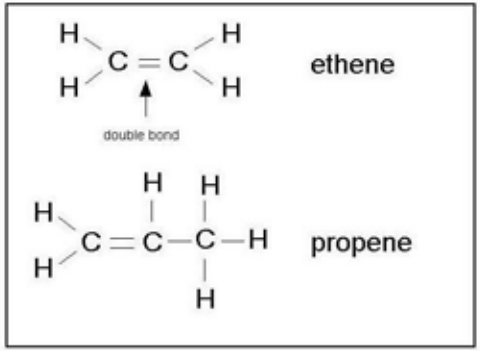
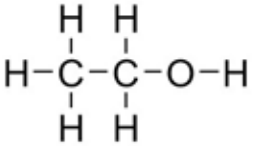
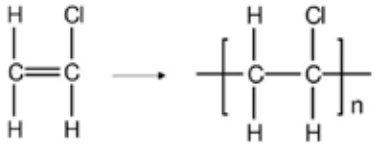
4	Reaction profiles	They can be used to show the relative energies of reactants and products, the activation energy and the overall energy change of a reaction.	 Exothermic reaction  Endothermic reaction

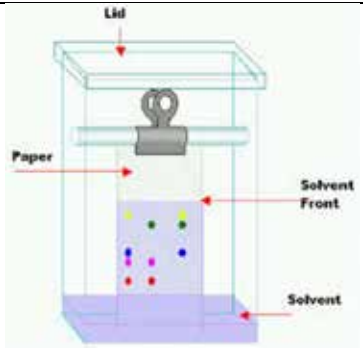
C6		Rate and Extent of Chemical Change	
	Key word	**Definition**	
1	Collision theory	According to this theory, chemical reactions can occur only when reacting particles collide with each other and with sufficient energy.	
2	Catalyst	A substance which speeds up a chemical reaction without being used up itself. It works by lowering the activation energy.	
3	Equilibrium	When a reversible reaction occurs in a closed system, equilibrium is reached when the forward and reverse reactions occur at exactly the same rate.	

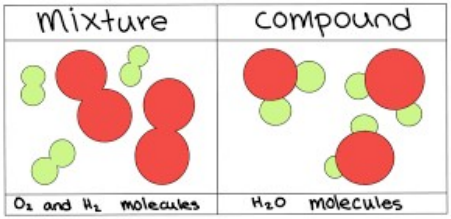
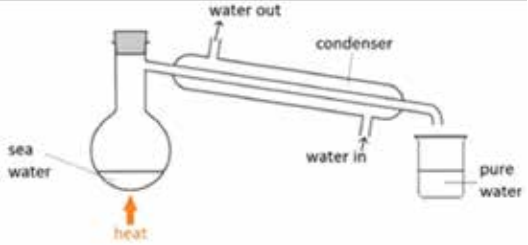
4	Le Chatelier's Principle (T)	If a reaction at equilibrium is subjected to a change in concentration, temperature or pressure, the position of equilibrium will move to counteract the change.	

C7		Organic Chemistry	
	Key word	**Definition**	
1	Crude Oil	Is made from the remains of living sea creatures decayed in mud millions of years ago.	
2	Hydrocarbons	Hydrocarbons are made of hydrogen and carbon **only.**	

3	Fractional distillation	A method of separating a mixture of substances according to their different boiling points. Commonly used to separate crude oil into different fractions.	
4	Cracking	The larger molecules from fractional distillation are less useful. We can break them down into smaller, more useful molecules. Cracking produces a mixture of alkanes and alkenes.	

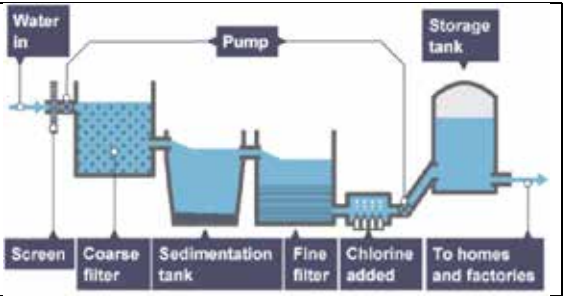
5	Alkanes	Alkanes are the most common hydrocarbon found in crude oil. Alkanes have the general formula CnH2n+2.	
6	Alkenes	Alkenes are hydrocarbons with a double bond between two of the carbon atoms in their chain, causing them to be unsaturated. They have the general formula C_nH_{2n}.	
7	Alcohols (T)	Alcohols contain the functional group –OH. The first four members of a homologous series of alcohols are methanol, ethanol, propanol and butanol.	
8	Polymers	Large long-chain molecules made up of lots of small monomers joined together by covalent bonds.	

C8		Chemical Analysis	
	Key word	**Definition**	
1	Chromatography	A technique for the separation of a mixture of liquids.	
2	Separation	The various constituents of the mixture travel at different speeds, causing them to separate.	
3	Pure substance	It consists of only one substance.	 Element
4	Mixture	It consists of a minimum of two substances not chemically joined together.	

5	Compound	It consists of minimum of two elements chemically joined together.	
6	Distillation	A technique for the separation of compounds from a liquid mixture using boiling points and condensation.	

C9		Chemistry of The Atmosphere	
	Key word	**Definition**	
1	Carbon footprint	'Total amount of CO_2 and other greenhouse gases emitted over the full life cycle of a product, service or event'.	
2	Greenhouse effect	The increase in the temperature of the Earth's atmosphere due to the greenhouse gases in the atmosphere trapping infra-red radiation from the surface.	
3	Global climate change	A long-term shift in global climate patterns.	
4	Global dimming	A gradual reduction in the amount of light reaching the Earth's surface. This can be caused by carbon particulates.	
5	Greenhouse gases	Greenhouse gases include water vapour, carbon dioxide and methane.	
6	Acid rain	Sulphur dioxide can be released when burning fossil fuels. This then dissolves in atmospheric water.	

C10		Using resources	
	Key word	**Definition**	
1	Finite	Resource that will run out e.g. fossil fuels.	
2	Renewable	Resource that can be replenished e.g. solar power, tidal power.	
3	Sustainable	Meets the needs of the current generation without compromising the ability of future generations to meet their needs.	
4	Life cycle assessment	LCA's are carried out in order to find the impact of a product on the environment.	

5	Potable water	Water that is safe to drink.	
6	Haber process (T)	Chemical reaction used to produce ammonia.	

Year 11
BTEC Digital IT Knowledge Organiser
Term 2 – Security Policies

Planning for disaster recovery	
Range of disasters which could happen	
1	Theft of data (having systems hacked or laptops/devices stolen)
2	Virus or other malware infection
3	Data loss (accidental deletion or intentional sabotage)
4	Fire or flood
5	Mechanical failure of equipment

Key Question

Why is it important to have a disaster recovery policy?

Answer

A disaster recovery policy is created to ensure the organisation can become operational again as quickly as possible after an unforeseen circumstance. A detailed plan is created covering all eventualities which could cause an organisation to stop trading.

Security Policies	
To make sure that all employees in all locations follow the same code of conduct organisations create policies that set out the responsibilities of staff. These policies detail how staff are expected to behave and what procedures they should follow in the event of a disaster. Most security policies are implemented by IT and technical staff. Below are examples of some common security policies	
1	System security
2	Data security
3	Compliance (with regulations and legislation)
4	Ensure users can complete the task in an efficient way
5	Environmental (including disposal of old equipment and waste products)
6	Disaster recovery
7	Data recovery
8	Infrastructure (updating and replacing hardware and software)
9	Responsible use policies (including email and internet use policies)

Disaster Recovery Plan			
	Consideration		**Description**
1	Identifying potential risks	1	Identify potential risks to the system and how each risk will affect the computer system and data
2	Who is responsible for which actions in the event of a disaster	2	Staff are given specific recovery tasks to avoid anything being duplicated or forgotten.
3	What staff should and should not do	3	Ensure that all staff know the procedures even if they do not have any direct tasks
4	How the systems will be backed up (including what will be backed up, how often and which media will be used)	4	Ensure that regular backups are taken. Decide where the backups will be stored and which media will be used to store the data e.g. cloud, magnetic tapes.
5	A timeline to establish how quickly the systems will need to be backup and running	5	After a disaster not all operations will be needed immediately. A plan should be made to define how long the organisation can be without each system. Critical systems must be identified and will need to be recovered first.
6	An alternative location for operation (hardware, software and personnel).	6	After disaster the organisation may need to move quickly to another location. Hardware, software and personnel should also be available (along with the backups) so that the organisation can function again quickly.

KS4 A CHRISTMAS CAROL TOPIC SHEET

1. Context

Author: Charles Dickens
Published: December, 1843
Era: Victorian
Genre: Allegorical; a ghost story.
Set: Victorian London
Structure: Five stave novella

Dickens' construction of secular Christmas values:
Until the mid-1800s, Christmas was solely a religious festival. Dickens helped to popularise many of the cultural elements that we now associate with Christmas. This **imagery** (food, decorations, music) is used throughout the novella. This has contributed to a more **secular** (non-religious) Christmas, based on the values of goodwill, benevolence and forgiveness.

The Malthusian Catastrophe:
Robert Malthus was a controversial economist who warned that the Industrial Revolution would lead to population growth; this population growth could then lead only to starvation and disease as there would not be enough resource for everyone. This concept was named the 'Malthusian Catastrophe'. Malthus therefore opposed the poor laws as they aimed to get people into factories to increase productivity. **Dickens highlights the Malthusian Catastrophe** when Scrooge refers to the workhouses as a logical solution for the poor.

London and inequality:
The frequent and abrupt jumping between scenes of middle class comfort (Fred) and grinding poverty (The Cratchits, Beetling shop) emphasises the close proximity and **contrast** of the different classes, and highlights the Christian concept of 'love thy neighbour'. The **urban setting** allows Dickens to exercise his fondness for **hyperbole**, with the exaggerated extremes of poverty adding to the effect of the 'plight of the poor'.

The Supernatural: Victorian society was fascinated by the supernatural, including mediums, ghosts, and spiritualism. However, this belief in the supernatural was also heavily influenced by the church, with the long standing belief that ghosts were souls who were trapped in purgatory.

The New Poor Law, 1834: In order to deter poor people from claiming financial help, the government made claimants live in workhouses: essentially, prisons for the poor. Dickens hated this law. He spent 1843 touring factories and mines in England and wished to highlight the situation facing poor people. A Christmas Carol was published soon after – in December 1843.

Victorian Childhoods: Children from wealthy families had access to education and opportunity. Children born into poverty would be expected to work from as young as 4, and bring an income into the household. Education was not compulsory, and children often could not read or write. The jobs they were employed to do were dangerous and life limiting.

2. Key Characters

Ebenezer Scrooge: The protagonist initially dismisses the goodwill and generosity associated with Christmas. After being forced to transform, he becomes a symbol of Christmas spirit in Stave Five. He is a dynamic character (a character who changes). A man who seems to embody everything about relentlessly striving capitalist spirit of the time.

Bob Cratchit: Bob is Scrooge's downtrodden but loyal employee. His family are a symbol of Victorian poverty, cheerfulness in adversity, togetherness and Christmas Spirit. Bob shows pity for Scrooge, and provides a contrast to Scrooge's isolation and meanness. Tiny Tim is an emblem for noble poverty; he accepts his disability without complaint.

Fred: Fred epitomises the concept of goodwill and forgiveness, refusing to be discouraged by his uncle's misery. People (such as the Cratchits) speak highly of Fred and his generosity, in contrast to how they speak of Scrooge. Fred shows that Scrooge has chosen isolation and shows forgiveness to Scrooge, welcoming him in Stave Five.

Marley's Ghost: Marley's ghost is the spiritual representation of Scrooge's potential fate. The chains that drag him down symbolize the guilt caused by his failure to help people in need. Marley's ghost warns Scrooge that he too will experience the same guilt if he continues to deny people help.

The ghosts: The Ghost of Christmas Past is a symbol of childhood, truth and enlightenment.
The Ghost of Christmas Present represents goodwill, plenty and the festival of Christmas.
The Ghost of Christmas Yet to Come symbolises a catastrophic future for mankind.

3. Key Terminology

Stave	Chapters in the novella, but we normally associate staves with music, as if the **book** is a Christmas carol, and each chapter is part of the song.
Symbolism	The use of symbols to represent ideas or qualities.
Intrusive narrator	A narrator who interrupts the story to provide a commentary to the reader on some aspect of the story or on a more general topic.
Circular structure	Circular narratives cycle through the story one event at a time to end back where the story originated.
Allegory	A story that can be interpreted to reveal a hidden meaning, typically a moral or political one.
Allegorical figures	An **allegorical** figure is a **character** that serves two purposes: first, they are an important person in the story in their own right, and, second, they represent abstract meanings or ideas.
Foreshadowing	Foreshadowing is a literary device in which a writer gives an advance hint of what is to come later in the story.
Didactic	A type of literature that is written to inform or instruct the reader, especially in moral or political lessons.
Polemic	A strong verbal or written attack on someone or something.

4. Key Vocabulary

Malthusian	Population growth with out strip agricultural growth, leading to economic disaster.
Purgatory	A place or state of suffering inhabited by the souls of sinners.
Misanthropic	Having or showing a dislike of other people; unsociable.
Philanthropic	Seeking to promote the welfare of others; generous and benevolent.
Avaricious	Having or showing an extreme greed for wealth or material gain.
Benevolent	Well meaning and kindly.
Solitude	The state or situation of being alone.
Resolute	Admirably purposeful, determined, and unwavering.
Remorse	Deep regret or guilt for a wrong committed.
Redemption	Being saved or saving someone from evil, sin or suffering.
Capitalism	An economic, political, and social system in which property, business, and industry are privately owned. The system is directed towards making the greatest possible profits for the owners of production.
Inequality	The difference in social status, wealth, or opportunity between people or groups.
Injustice	A situation in which there is no fairness, justice, or equality in the treatment of a person or persons.

The Big Ideas	Notes	**The Methods**	Notes
Dickens conveys the message that everybody is capable of redemption.		Dickens uses the spirits to propel Scrooge's redemption.	
Dickens emphasises the need for social responsibility and charity.		Dickens uses contrasts and juxtapositions to highlight social inequality and the redemption of Scrooge.	
Dicken highlights the importance of family and friendship.		The intrusive, **omniscient narrator** provides the reader with social commentary.	

GCSE ENGLISH LANGUAGE — PAPER 1—EXPLORATIONS IN CREATIVE WRITING—SECTION A

Reading	Q1: Comprehension	Q2: Language Analysis	Q3: Structural Analysis	Q4: Comparing Writer's Perspective
What is the text about? Who are the main characters? Where is it set? What kind of atmospheres are created? How?	Read the section of the extract carefully	Consider the question before looking for evidence. 2+ ideas about the extract = opening statement.	What is the 'journey' of the text? Identify shifts in focus.	Identify the 2 parts of the statement. Write down why you agree with each focus. Is there a reason to disagree? Don't force it!
Annotate the focus of each paragraph: action, dialogue, description, characters.	Underline/circle/ highlight information relating to the focus.	Opening statement to inform evidence choice. Remember that evidence support your ideas.	Where do we begin? What is established at the start? Where do we end? What/ who has changed? Turning point/catalyst?	Select and annotate 2-3 moments – focus + connotations. (3 Step Approach) Refer to introduction. Before using evidence, explain why this moment supports your point. Include evidence last.
Do not answer any questions until you have read the whole text.	Use the information you have identified to complete the sentences.	Use the '3 step approach' to support analysis. Use the following questions: 1)What does the language mean? 2)What do we associate with it? 3) What does it suggest in this context?	Each paragraph should include: What does the writer choose to focus on? Why? Why now? How does it relate to/differ from the previous focus? Try to refer to another section of the text. Show you are aware of how the whole text links together.	Sentence stems: *The writer first establishes…when they choose to focus on…* *It is clear that…* *This is established through the writer's use of…* *The writer further develops this idea…when they choose to focus on…* *It is clear that…* *This is established through the writer's use of…* - Repeat the process for second focus

Critical Verbs

Suggests
Conveys
Symbolises
Highlights
Conveys
Portrays
Presents
Emphasises
Represents
Demonstrates
Perpetuated
Evokes
Denotes
Illustrates
Develops
Infers
Implies
Connotes
References
Perpetuates
Alludes to

GCSE ENGLISH LANGUAGE — PAPER 2—WRITER'S VIEWPOINTS AND PERSPECTIVES—SECTION A

Reading	Q1: Comprehension	Q2: Summary of Differences & Similarities	Q3: Language Analysis	Q4: Comparing Writer's Perspective
You will have to read 2 sources, one of which will be a 19th century text	Read the section of the extract carefully	This question tests your ability to infer implicit ideas from the evidence you find.	Consider the question before looking for evidence, 3 ideas about the extract > opening statement.	Identify the focus of the question Find 3 pieces of evidence in each source and note the writers' perspectives and any important words/language techniques
Look at the source information to determine the form and purpose of each text	Track the source – the statements occur in order within the text	Read the focus carefully Find 2-3 pieces of evidence from each source which link to the focus	Opening statement to inform evidence choice. Remember that evidence supports your ideas.	Using the 3 perspectives from each source write your introduction. Write up 3 comparative paragraphs using the following structure:
Do not answer any questions until you have read the whole text.	Read the questions carefully, some of them will catch you out otherwise	Write 2-3 paragraphs using the following sentence starters: - In source A the writer states… - From this I can infer… from this I can also infer… - However/On the other hand/like wise in source B the writer states…	Use the '3 Step Approach' to support analysis. Use the following questions: 1)What does the language mean? 2)What do we associate with it? 3)What does it suggest in this context	1. Make a point about the writer's perspective for source A; 2. Name the writer's method and include your evidence; 3. Analyse how your evidence shows the writer's perspective; 4. Write a comparative point about the writer's perspective for source B; 5. Name the writer's method and include your evidence; 6. Analyse how your evidence shows the writer's perspective

Critical Verbs
Conveys
Connotes
Develops
Denotes
Demonstrates
Establishes
Explores
Evokes
Highlights
Infers
Portrays
Presents
Represents
Perspective

KS4 MACBETH TOPIC SHEET

1. Context

Playwright: Shakespeare (April 23rd 1564-April 23rd1616)
Dates: written around 1606
Published: in 'the First Folio, 1623
Era: Jacobean
Genre: Tragedy = *A play ending with the suffering and death of the main character.*
Set: Scotland,
Structure: Five Act Play

Macbeth. The plot is partly based on fact. Macbeth was a real 11th Century king who reigned Scotland from 1040-1057. Shakespeare's version of the story originates from the Chronicles of Holinshed (a well known historian). The play was most likely written in 1606 – the year after the Gunpowder Plot of 1605 – and reflects the insecurities of Jacobean politics.

The Divine Right of Kings says that a monarch is not subject to earthly authority and that they have the right to rule directly from the will of God. It implies that only God can judge an unjust king and that any attempt to depose, dethrone or restrict his powers runs contrary to the will of God and may constitute a sacrilegious act. The action of killing a king is called regicide and is considered a terrible crime.

King James I of England (and VI of Scotland) came to the throne in 1603 following the death of Queen Elizabeth I. The play pays homage to the king's Scottish lineage. The witches' prophecy that Banquo will found a line of kings is a clear nod to James' family's claim to have descended from the historical Banquo. James was convinced about the reality of witchcraft and its great danger to him leading to witch trials. The play is probably not written simply to please James, but certainly looks at relevant ideas.

Shakespearean Tragedy. Macbeth is one of Shakespeare's tragedies and follows specific conventions. The climax must end in a tremendous catastrophe involving the death of the main character; the character's death is caused by their own flaw(s) (hamartia) yet the character has something the audience can identify with.

The Great Chain of Being was a belief in a strict religious hierarchy (see key vocabulary) of all things which was believed to have been decreed by God. This idea was important in Elizabethan and Jacobean beliefs. The chain starts from God and progresses downward to angels, demons (fallen/renegade angels), stars, moon, kings, princes, nobles, commoners, wild animals, domesticated animals, trees, other plants, precious stones, precious metals, and other minerals.

Conventions of a Shakespearean Tragedy

A **tragic hero** who falls from greatness through a flaw of their own character.	**Hamartia** – the flaw in the tragic hero that destroys them.	A **hero of status** – the central characters are people of importance, with power and status to lose.
External conflict – his tragedies feature conflict between characters, and always lead to death.	**Internal conflict** – there are frequent moments of self-doubt or internal torment.	**Supernatural elements** – Many of Shakespeare's tragedies feature supernatural influences.

2. Key Characters

Macbeth: The eponymous protagonist is the tragic hero of this play. He is both ambitious and ruthless. He falls from loyal and respected warrior to a paranoid, tyrannical king, before dying in battle in Act V.

Lady Macbeth: A strong, ambitious and manipulative woman who exerts pressure on Macbeth to pursue him ambition of becoming king by murdering Duncan. Unable to deal with the guilt of these actions and is driven to madness and suicide.

The Witches / Weird Sisters: Supernatural and manipulative beings who seem to be able to predict the future. They are unearthly and omniscient.

Banquo: Macbeth's close friend and ally is astute and loyal. Macbeth sees him as a threat. He is virtuous, admired by audiences, and mistrustful of the supernatural witches.

Duncan: King of Scotland at the beginning of the play. He is a virtuous, strong and respected leader, held up as the model of good kingship by others in the play. He is murdered by Macbeth in Act 2.

Macduff: A soldier who is loyal to Duncan and is suspicious of Macbeth. His family is murdered by Macbeth's soldiers and he eventually exacts revenge by killing Macbeth. He was born by caesarian section and therefore was "not of woman born".

Malcolm: Duncan's son and next in line to the throne. He is described as a good man in the play.

3. Central Themes

Ambition	The play is about the corrupting power of ambition. Both Lady Macbeth and Macbeth are urged to action by the prophecies of the witches, but they still commit their crimes themselves because they want greater power. Their ambition leads them to violence and death.
Kingship and Tyranny	The play contrasts the kind and wise rule of Duncan, who is described as a virtuous (good) king, with the brutal rule of Macbeth, who quickly becomes called a tyrant. The play shows how Macbeth has no divine right to rule and upsets the natural order by killing Duncan.
Order and Disorder	The play subverts the natural order of the world. Macbeth's actions are based on a supernatural belief in a prophecy. It depicts an anarchic world: Macbeth inverts the order of royal succession; his wife inverts the patriarchal hierarchy; the unnatural world disrupts the natural. The disruption underpins the conflict that is not only external and violent but internal as Macbeth and his wife come to terms with what they've done.
Appearance and Reality	Characters in the play are often not what they seem. Lady Macbeth and Macbeth are duplicitous towards Duncan, the witches equivocate (not say what they really mean) and cannot be trusted, Lady Macbeth seeks to manipulate Macbeth.

4. Key Vocabulary

Ambition	A desire to achieve something e.g. Macbeth and kingship
Hubris	Having excessive pride or self-confidence
Tyrant	A ruler who rules through fear and violence
Corrupt	Acting dishonestly *OR* being in a state of decay
Patriarchal	A society where power is in the hands of men
Duplicitous	Lying and being false. Two-faced. Deceitful
Façade	A false front, mask or illusion. Hiding one's true feelings
Prescient	Having knowledge of things before they happen – the witches
Nihilistic	The belief that everything is meaningless
Courageous	Being very brave
Supernatural	Things that are not a part of the natural world
Fate	Events being already decided and out of a person's control
Treachery	Betraying someone's trust
Regicide	The killing of a king

5. Key Terminology, Symbols and Devices

Motif	A recurring image or idea that has symbolic importance. The best example in Macbeth would be blood.
Soliloquy	When a character is alone on stage and speaks their thoughts aloud to themselves.
Iambic Pentameter	A line of a play or poem that has ten syllables organised into five pairs of syllables, where the second in each pair is emphasised. e.g. "When *you* durst *do* it *then* you *were* a *man*"
Foreshadowing	When a hint or warning is given about a later event.
Dramatic Irony	When a character is unaware of something that the audience is aware of, so they don't know the full significance of their words.
Symbolism	When something symbolises a set of ideas e.g. "The raven himself is hoarse" – raven symbolic of death, supernatural.
Aside	When a character pauses in a conversation to speak only to the audience or another character, unheard by the rest.

The Big Ideas	Notes	The Methods	Notes
1. Shakespeare uses the play to demonstrate the terrible consequences of disrupting the **natural order**. His rule is unnatural and brings only disorder and sickness. His death restores balance.		1. Shakespeare **uses blood as a metaphor for guilt** through the play. As the guilt increases, the volume of blood increases.	
2. Shakespeare uses the play to demonstrate the consequences of engaging with **the supernatural.**		2. Shakespeare uses **apparitions** to present the consequences of ungodly behaviour and is ambiguous about whether they are real or imagined.	
3. Shakespeare uses Macbeth's role as a tragic hero to highlight how vulnerable people are to the destructive **temptation of power.**		3. Shakespeare's **characterisation of Macbeth and Lady Macbeth** establishes the idea that ungodly deeds do not go unpunished.	

Learning Outcome 1. Be able to develop a brand identity and promotional plan to target a customer profile

What is a brand?	• Strategy – focus on the company purpose and what makes it different from your competitor • Personality – how do your customers see your brand. Exciting? Sophisticated? Value for money? Reliable? • Identity - does the brand have a specific 'look'? A colour? Logo? Logo placement? Typeface? • Image – low cost? High quality? Technologically advanced?						
Why do businesses use branding?	Trust	Recognition	Image	Quality	Differentiation	Adding value	Building loyalty
Branding methods	Logo	Sound or jingle	Strapline or catchphrase	Celebrity endorsement	Associated character		
Promotional Objectives – why do businesses promote themselves?	• To raise awareness and remind customers about your offering • To differentiate your product or service from the competition • To persuade customers to purchase your product or service • To create a presence in the market • To boost market share – increase the number of customers you are selling to						
Digital promotion methods	Web page	Social media	SMS text	Podcasts	Blogs / Vlogs	Online ads eg banners / popups	
Offline / traditional promotion methods	Flyers	Advertisements (TV, Newspaper, direct mail, cinema, radio)	Events	Sponsorship			

Learning Outcome 2. Be able to plan a pitch for a proposal

Plan a pitch – what you need to consider	• Audience needs – accessibility of content, convincing them of likely success • Establish the pitch objectives • Consider your venue layout and the equipment you need • Personal appearance • Predict potential questions and responses

Learning Outcome 3. Be able to pitch a proposal to an audience	
When producing your pitch think about the skills you need to show	Time management How to use the media and visual aids you have created Clarity of your communication Ability to persuade your audience Ability to answer questions posed by the audience

Learning Outcome 4. Be able to review the strengths and weaknesses of a proposal and pitch						
Sources of evidence to review your pitch include	Self-assessment	Feedback from others	Lessons learned from your practice pitch	Lessons learned from your professional pitch		
	What went well	What could I do better	How well did you answer questions posed?			
Review of your business proposal – success criteria will include how successful you think these items were and why:	The product	Pricing strategy and price	Your brand	Your promotional plan	Suitability for target audience	Future developments / recommendations

Revision

Year 11 French Knowledge Organiser

A	General Opinions	
1	Je dirais que	I would say that
2	Autant que je sache	As far as I know
3	Je crois que	I believe that
4	Selon ___	According to ___
5	J'ai horreur de/d'___	I hate ___
6	Je ne supporte pas	I can't stand
7	___ m'intéresse	___ interests me
8	___ m'ennuie	___ bores me
9	___ m'embête	___ annoys me
10	___ n'est pas mon truc	___ isn't my thing

B	Negatives	
1	ne ___ pas	Don't
2	ne ___ jamais	Never
3	ne ___ personne	Nobody
4	ne ___ rien	Nothing
5	ne ___ que	Only
6	ne ___ plus	No longer

C	Adverbs	
1	Normalement	normally
2	Généralement	Generally
3	D'habitude	Usually
4	Totalement	Totally
5	Finalement	Finally
6	Fréquemment	Frequently
7	Évidemment	Obviously
8	Regulièrement	Regularly
9	Seulement	Only
10	Facilement	Easily
11	Absolument	Absolutely

D	Connectives	
1	Par contre	However
2	C'est à dire	That is to say
3	Donc	So/thus/therefore
4	Ainsi que	As well as
5	(Mal)heureusement	(Un)fortunately
6	Néanmoins	Nevertheless
7	À l'autre côté	On the other hand
8	En revanche	However
9	Même si	Even if
10	Sinon	If not
11	Car/Parce que/Puisque	Because
12	Également	Equally
13	Malgré	Despite
14	Malgré cela	Despite that
15	Sans doute	Without a doubt
16	Peut-être	Perhaps

E	High level structures	
1	Pour que je puisse	So that I can
2	Bien que je sois	Although I am
3	Bien que ce soit	Although it is
4	Il faut que je fasse	I have to do
5	Il faut que je sache	It's necessary that I know
6	Bien que j'eusse eu l'intention de +infinitive	Although I had had the intention of …
7	Je ne pense pas que ce soit	I don't think that it is
8	Pour que nous puissions	So that we can

The Perfect Tense

Pronoun + Auxiliary Verb + Past Participle

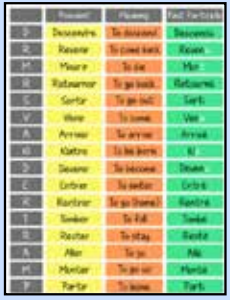
Most verbs use **avoir** as an auxiliary verb

j'	ai	ER verbs Manger —> mangé
Tu	as	IR verbs Finir —> fini
Il/Elle/On	a	RE verbs Entendre —> Entendu
Nous	avons	
Vous	avez	
Ils/elles	Ont	

Some verbs use **être**. With these verbs, the past participle must agree with number & gender. For example:

- Je suis allé = I went (masculine singular)
- Je suis allée = I went (feminine singular)
- Ils sont allés = They went (masculine plural)
- Elles sont allées = They went (feminine plural

The verbs that use **être** in the past tense are in the table below:



Build knowledge and confidence to be a determined and competent linguist via an ambitious curriculum that builds on and develops prior knowledge

Revision

Year 11 French Knowledge Organiser

F	Si clauses	
1	Si j'étais riche	If I was I rich
2	Si j'avais le pouvoir	If I had the power
3	Si j'avais le choix	If I had the choice
4	Si j'avais plus d'argent	If I had more money
5	Si c'était possible	If It was possible
6	J'aimerais	I would like
7	Je changerais	I would change
8	Je voudrais	I would like
9	Il y aurait	There would be

G	Opinions In Different Tenses	
1	C'est	It is
2	C'était	It was
3	Ce sera	It will be
4	Ce serait	It would be
5	Ça va être	It is going to be
6	Ce n'est pas	It isn't
7	Ce ne sera jamais	It will never be

H	Describing A Photo	
1	Dans la photo	In the photo
2	Il y a	There is/There are
3	Je peux voir	I can see
4	Un homme	A man
5	Une femme	A woman
6	Des enfants	Some kids
7	Qui sont en train de +inf	Who are +infinitive verb
8	Il me semble que	It seems to me that
9	La personne semble	The person seems

I	Time Phrases/Signals and Sequencers	
1	Tous les jours	Every day
2	Chaque semaine	Every evening
3	Chaque année	Every year
4	Chaque weekend	Every weekend
5	De temps en temps	From time to time
6	Souvent	Often
7	Hier	Yesteryday
8	Aujourd'hui	Today
9	Demain	Tomorrow
10	L'année dernière	Last year
11	Dans le passé	In the past
12	Avant	Before
13	Maintenant	Now
14	Il y a deux jours	Two days ago
15	Dans le futur/l'avenir	In the future
16	Quand j'aurai dix huit ans	When I am 18
17	Quand j'étais jeune	When I was young
18	D'abord	First of all
19	Puis	Then

J	Detail/Intensifiers	
1	Trop (de)	Too (many/much)
2	Beaucoup (de)	A lot (of)
3	Assez	Quite
4	Plutôt	Rather
5	Vraiment	Really
6	Extrêmement	Extremely

The Future Tense

Futur proche = Pronoun + Aller + Infinitve

Most verbs use **avoir** as an auxiliary verb

Je	vais	
Tu	vas	
Il/Elle/On	va	+ infinitive
Nous	allons	
Vous	allez	
Ils/elles	vont	

Infinitives are verbs that end in **-er, -ir,** or **-re**

For example:
je vais manger = I am going to eat
Vous allez apprendre = you are going to learn
Tu vas regarder = You are going to watch

Pronoun	Stem	Ending
Je		ai
Tu		as
Il/Elle/On		a
Nous		ons
Vous		ez
Ils/elles		Ont

The **futur simple** works slightly differently:
Pronoun + Stem + Future Ending

For example:
Je mangerai = I will eat
Vous apprendrai = You will learn
Tu regarderas = You will watch

Build knowledge and confidence to be a determined and competent linguist via an ambitious curriculum that builds on and develops prior knowledge

Y11: UK Human Landscapes

Our curriculum intent in geography at Sheffield Park Academy:

1. We teach powerful geography, where students engage in traditional geographic themes and **knowledge**

2. Our curriculum is both a mirror and a window; students learn about their place in the world and must be **determined** to move beyond their own experiences.

3. We encourage students to become active citizens, considering their influence over alternative futures, demonstrating **leadership**

1.	Population and settlement
Population density	The number of people (per km squared) living in an area.
Sparsely populated	Population density is low (per square km).
Densely populated	Population density is high (per square km)..
Distribution	The way something is spread out over an area
Rural	An area that is located outside of cities or towns fir example the countryside.
Urban	A built-up area such as a town or city with a high population density and many buildings.
Migration	The movement of people from one place to another usually for work.

2.	UK economy
Primary employment	Collecting raw materials, e.g. farming, fishing and mining.
Secondary employment	Manufacturing of goods from raw materials, e.g. car manufacturing.
Tertiary employment	Providing a service, e.g. doctors, shop assistants and teachers.
Mechanisation	The use of machinery for example in farming modern technology means that they now have tractors and harvesters so less workers are needed.
Positive multiplier effect	An effect in economies where an increase in spending produces an increase in national income and consumption greater than the initial amount spent.
Transnational companies/corporations (TNCs)	These are companies which operate in more than one country.
Inequalities	Differences between areas in terms e.g. difference in wealth / income / life expectancy
Enterprise zones	An area in which has incentives such as tax concessions being offered to encourage business investment.
Infrastructure	The basic physical and organizational structures and facilities (e.g. buildings, roads, power supplies) needed for the operation of a society e.g. HS2.

3.	London case study
Site	The land that an urban area in built on.
Situation	The proximity of a city's location in relation to other countries.
Connectivity	How a city is connected regionally and globally.
Cultural diversity	Immigration of people from other countries bring different culture to the UK such as Music, Food and Goods e.g., China Town, London.
Index of multiple deprivation	A measure of deprivation which combines data on employment, health, education, crime, housing, services and environment to give an overall figure of the quality of life in an area.
Deprivation	The lack of basic needs that are necessary in society.
Depopulation	Decline of total population in an area
Decentralisation	The movement of economic activity away from the city centre e.g., out of town shopping centres.
Challenge	Something that makes it difficult for a place to develop and improve.
Opportunity	Something that creates a good chance for development and to improve

OCR Cambridge National Certificate in Health and Social Care: R031 First Aid

Big Question: How can we assess scenes of accidents to identify risks and continuing dangers?		
Small Question	**Key Term**	**Definition**
How can a first aider use the SCENE acronym when they attend an accident?	1. SCENE	SCENE is an acronym used by first aiders to help attend to an incident. SCENE stands for Stop, Check for danger, Exposure protection, No obvious risk and Establish priorities.
	2. Stop	The first aider needs to review the situation and look for any hazards that could be a danger to both themselves, the casualty and any bystanders.
	3. Check for danger	There are a variety of dangers that should be checked for and minimised before giving first aid. A few possibilities include gas leaks, electricity, fire, sharp objects and chemical liquids.
	4. Exposure protection	The first aider needs to ensure no harmful bacteria or viruses are passed on between them and the casualty. For example, using sterile latex gloves and a mouth guard.
	5. No obvious risk	This is a step the first aider will do to check for other dangers such as other people or service users at the scene.
	6. Establish priorities	This is a step used if there is more than one casualty at the scene. The first aider will have to determine which casualties' injuries are more severe.
	7. Emergency	An emergency is when someone is seriously ill or injured and their life is at risk.
	8. Minor injury	A non-life-threatening injury which does not require emergency treatment.
	9. Casualty	Person who has been injured, requiring first aid and/or hospital treatment.
Big Question: What are the first aid procedures for a range of injuries?		
Small Question	**Key Term**	**Definition**
How should a first aider obtain consent, communicate clearly, seek additional support and provide information to the emergency services?	10. Informed consent	For consent to be informed, the first aider should explain information about what is happening and what steps they would like to take and why. This helps the person to understand what they are agreeing to and giving consent for.
	11. Conscious	A casualty is alert, aware of what is going on and able to respond to the first aider.
	12. Unconscious	A casualty is not alert and is unable to respond to the first aider.
	13. Effective communication	Appropriate use of verbal and non-verbal communication according to the situation.
	14. Emergency services	The ambulance, fire brigade, police and coastguard services that are available in an emergency when 999 is called from a telephone.

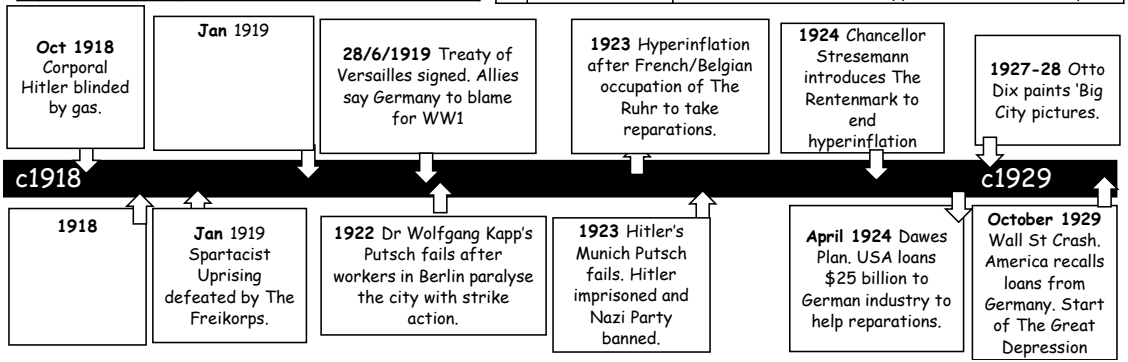
What is the purpose of the ABC check and recovery position?	15. First aid aims	There are 3 aims of first aid: To preserve life – your own, the casualty's and bystanders; prevent deterioration – stop the casualty getting worse; promote recovery – help them get better.
	16. Deterioration	When the condition of the casualty is getting worse.
	17. Primary survey	The Primary Survey is a quick way for a first aider to find out if someone has any injuries or conditions which are life-threatening using DR.ABC.
	18. DR.ABC	**D**anger, **R**esponse, **A**irways, **B**reathing, **C**irculation.
	19. Danger	If someone needs help, before you go up to them check – is it safe?
	20. Response	Does the casualty respond when you ask them: 'Are you alright?' or if you say: 'Open your eyes!'
	21. Airway	The passageway which leads to the lungs. Is their airway open and clear so that they can breathe?
	22. Breathing	The process of taking air into and expelling it from the lungs. Is the casualty breathing normally? The first aider needs to look, listen and feel to check they're breathing. To check for breathing, the first aider should look for chest movements and listen for breathing sounds.
	23. Circulation	The movement of blood to and from all the organs and tissues around the body. Are there any signs of severe bleeding? Is there a pulse?
	24. Pulse	Rhythmical throbbing of arteries as blood circulates through them, usually felt in the wrists or neck.

History – Knowledge Organiser

Y11 – Weimar and Nazi Germany c1918-29

	Key Individuals	
1	Friedrich Ebert	The first chancellor of Germany elected Jan 1919. He was (unfairly) associated with The Treaty of Versailles.
2	Rosa Luxemberg and Karl Liebknecht	Leaders of The Spartacist uprising in 1919. They wanted Soviet-style workers' councils like they had in Russia
3	Ernst Rohm	A member of The Freikorps who later became leader of The SA, Hitler's private army who protected him.
4	Gustav von Kahr	Right wing leader of Bavaria with Lossow who told the police about Hitler's Munich Putsch plans and helped it fail.

	Key terms	Definition
1	Constitution	An agreed set of rules for running a country. In Germany this was called The Weimar Constitution.
2	The Weimar Republic	Another name for Germany from 1919-1939. Named after the town of Weimar.
3	Kaiser	German word for 'emperor' or 'king'. Comes from the old Latin word for Caesar.
4	The Ruhr	An area of Germany which had a lot of factories in and so produced a lot of goods and money.
5	The Rhineland	An area in Western Germany around The River Rhine. It was demilitarised to protect France.
6	Right wing	Political position of people who think taxes should be low but there is more inequality.
7	Left wing	Political position of people who think taxes should be high so there is more money to help people.
8	Reparations	Money to repair damage. Germany was forced to agree £6.6 billion to repair WW1 damage.
9	Reichstag	German version of The House of Commons where the government votes and decides laws.
10	Democracy	A form of government where people in the country vote for their leaders. Opposite of dictatorship.



History – Knowledge Organiser

Y11 – Weimar and Nazi Germany c1929-39

	Key Individuals	
1	President Hindenburg	The President of Germany technically had more power than the chancellor. President Hindenburg was elected in 1927 but died in 1934.
2	Heinrich Himmler	Hitler's head of The SS. By 1936 The SS controlled the German Police State: police and security forces, SD and Gestapo.
3	Herman Goering	Hitler placed Goering in charge of the 1936 Four Year Plan to improve the economy and prepare for war. This created jobs.
4	Reich Bishop Ludwig Muller	The leader of combined Protestant churches in Germany: The Reich Church.

	Key terms	Definition
1	Chancellor	German version of Prime Minister. Could only pass laws if The Reichstag voted for them.
2	KPD	*Kommunistische Partei Deutschlands*. The German Communist Party which Hitler banned in 1933.
3	Police State	The name given to countries where dictators keep control using police and spies.
4	Concordat	Agreement signed between Hitler and The Catholic Church. Catholics agreed to stay out of politics.
5	Propaganda	One-sided information designed to try and persuade people eg using newspapers and radios.
6	Censorship	Banning information or ideas. Controls attitudes by forbidding certain information or opinions.
7	Trade Unions	Workers who join together to campaign for better pay and conditions. Can resort to strike action.
8	Kinder, Kuche, Kirche	German words for Church, Children and Kitchen. Nazis said women should focus on these things.
9	Conscription	Forcing people to join the army. This was reintroduced by Hitler and reduced unemployment.
10	Pogrom	An attack on a group of people where the government supports or does not help victims.

March 1930 Chancellor Bruning's Coalition falls apart over taxes.

Jan 1919 Friedrich Ebert wins elections with 40% of the vote for SPD.

March 1933 Hitler passes The Enabling Act which allowed him to pass laws without people voting in The Reichstag.

1933 All judges and magistrates made to swear an oath of loyalty to Hitler and The Nazi Party. Top police jobs given to Nazis.

1935 1600 newspapers are closed down as Hitler seeks to censor any negative news about him.

1936 Membership of Hitler Youth made compulsory.

c1929 → c1939

Jan 1933 Hindenburg appoints Hitler Chancellor of Germany.

Feb 1933 Reichstag Fire. Hitler blames Communists. 100 Communists out of Reichstag.

April 1933 Hitler sets up The Gestapo under Reinhard Heydrich. His secret police in charge of arresting opponents.

Nov 1933 Nazis force all workers to join The DAF (German Labour Front) under Robert Ley which controlled workers.

1936 All Protestant Churches in Germany combine to form The Reich Church led by Reich Bishop Ludwig Muller

Nov 1938 Nazis launch a pogrom against Jews which they call 'Kristallnacht'.

Can I write in paragraphs?

The **TIPTOP** rule

You move onto a new paragraph when you change **t**ime, **p**lace, **t**opic or **p**erson.

1. I always start an essay with an introduction which addresses the question.
2. I finish an essay with a conclusion to summarise the main points of my argument and to address the question again.
3. I use connectives in each paragraph to link my ideas and to put them in a logical order.

Furthermore	But	Meanwhile
Whereas	Since	Nonetheless
Nevertheless	Yet	However
Alternatively	Therefore	Although
Consequently	Besides	Moreover

Have I used the correct grammar?

I am aware that I must use language that is appropriate to my reader.

◆ **No slang** that lesson was ~~bangin'~~

◆ **No informal language** I'm ~~gonna~~ do my homework now

◆**Other things to consider:**

✓ **I am clear about the purpose of this piece of writing**

✓ **I know who my audience is**

✓ **I will use a suitable layout and text type**

I am proud of my work because...

- I have written clearly so that my reader can understand my writing easily.
- I have checked my **spelling** and corrected any errors.
- I have used full sentences with a subject and a verb.
- I have used correct **punctuation** and **grammar.**
- I have paragraphed my work using **TIPTOP.**
- My writing is suitable for the person I am writing for

Can I spell familiar words accurately?

Common contractions

We must use an apostrophe to replace any letter(s) we have left out.

11 o'clock	I'd	We'd
Aren't	I'll	We'll
Can't	I'm	We're
Couldn't	Isn't	Weren't
Didn't	It'd	What's
Doesn't	It'll	When's
Don't	It's	Where'd
Hadn't	Mightn't	Where's
Hasn't	Mustn't	Who'd
Haven't	She'd	Who'll
He'd	She'll	Who's
He'll	She's	Why'd
He's	Shouldn't	Why'll
How'd	They'd	Why's
How's	They'll	

Can I use different sentence types?

Simple sentences: contains a subject and a verb and can contain an object
- Sarah likes to read in the library.
- Tom enjoys reading at home.

Compound sentences: joins two simple sentences using the connectives: for, and, nor, but, or, yet, so.
- Sarah likes to read in the library but Tom prefers to read at home.

Complex sentences: A complex sentence contains a conjunction such as because, since, after, although, or when .
- Because Robert felt tired, he only studied for an hour.
- Although the rain had stopped, the pitch was still water-logged.
- Paul enjoys Music, however, he is more proficient in Art.

Homophones

I have checked that I have not mixed up my homophones.

affect/effect	one/won
bare/bear	passed/past
brake/break	peace/piece
buy/by	practice (n)/practise (v)
grate/great	read/red
hair/hare	sea/see
hole/whole	sight/site
hour/our	to/too/two
knight/night	wait/weight
know/no	weak/week
meat/meet	wear/where
	witch/which

Basics:

❑ Every sentence must start with a capital letter.
❑ Every sentence must finish with some form of punctuation: .?!
❑ Proper nouns need capital letters. These are **unique** people, places or things e.g. there are many cities so 'city' doesn't take a capital letter. However there is only one London, therefore it takes a capital letter.
❑ When writing titles of works such as books, films or plays:
- Capitalise the first word
- Capitalise any main/important words
- Don't capitalise minor words such as 'and', 'of' or 'the' e.g. The Sound of Music, The Wizard of Oz, Harry Potter and the Goblet of Fire

❑ When writing speech:
✓Go to a new line when a different person speaks e.g. "Good morning" said the Headteacher. "It's the afternoon!" replied the student.
✓Each person's speech is marked with speech marks e.g. "Walk on the left" said Mr Mathews.

Can I spell accurately?

1. Sound out the word
2. Think about how it looks
3. Think about a similar word
4. Is there a memory sentence for this word? (e.g. big elephants cannot always use small exits)
5. Find the word in a list –
   - Key words list
   - Frequently used words list
   - Your own word bank
7. Ask a friend or teacher
8. To learn it: look, cover, write , check
9. Once you've solved it, add the correct spelling to your own word bank.

Can I use punctuation?

The Apostrophe
I always aim to use apostrophes correctly.

There are two main reasons why we use apostrophes: for possession and to replace a letter or letters

Note: Apostrophes are NEVER used to denote plurals

Full stop	.	indicates that a sentence has finished
Comma	,	indicates a slight pause in a sentence, separates clauses in a complex sentence and items in a list
Question mark	?	goes at the end of a question
Exclamation mark	!	goes at the end of a dramatic sentence to show surprise or shock
Apostrophe	'	shows that letter(s) have been left out or indicates possession
Speech marks	""	indicate direct speech, the exact words spoken or being quoted
Colon	:	introduces a list, a statement or a quote in a sentence
Semicolon	;	separates two sentences that are related and of equal importance
Dash / hyphen	-	separates extra information from the main clause by holding words apart
Brackets	( )	can be used like dashes, they separate off extra information from the main clause
Ellipsis	...	to show a passage of time, to hook the reader in and create suspense

Apostrophe for Possession
(To show that something belongs to another)

If a single thing/person owns anything, add an apostrophe + 's'.
- The dog's bone
- The boy's homework
- Jones's bakery
- Yesterday's lesson

However, if it is plural (more than one), an apostrophe comes after the 's'.
- The dogs' bones
- The boys' homework
- Joneses' bakeries (lots of Jones families)
- Many websites' content is educational

There/ their/ they're

Note: special care must be taken over the use of **there**, **their** and **they're** as they sound the same but are used quite differently:
- ❖**There** shows position *Your seat is over there*
- ❖**Their shows that 'they' own something** Their blazers are navy blue
- ❖**They're** is short for **they are** as in *They're revising every day*

Its

Note: its, which shows that something owns something (like our, his etc), does not take an apostrophe: *the dog ate its bone and we ate our dinner*

Your/ you're

Note: special care must be taken over the use of **your** and **you're** as they sound the same but are used quite differently:
- ❖**Your** is possessive as in *this is your pen*
- ❖**You're** is short for you are as in *you're coming over to my house*

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Vectors (F)		
1.	Vector	An object that describes a 2D object or movement
2	Column Vector	$\begin{pmatrix} a \\ b \end{pmatrix}$ a: movement along the x-axis (left or right) b: movement along the y-axis (up or down) $-a$: movement left $-b$: movement down
3.	Addition Of vectors	$\begin{pmatrix} 2 \\ 6 \end{pmatrix} + \begin{pmatrix} 7 \\ -3 \end{pmatrix} = \begin{pmatrix} 9 \\ 3 \end{pmatrix}$

Similar Shapes (F)		
1.	Similar	Two shapes are similar if one is an enlargement of the other with the ratios of the lengths remaining the same.
2.	Angles in similar shapes	The angles in two similar shapes are the same in both shapes.
3.	Scale Factor	The ratio that a shape has been enlarged by.

Constructions and Loci (F/H)		
1.	Loci	A set of points or lines that follow a set of rules.
2.	Pair of compasses	Mathematical equipment to draw circles or arcs.
3.	Bisect	Cut something exactly in half.
4.	Perpendicular	At right angles to another line or curve.
5.	Equidistant	The same distance between two points or objects.

Further Statistics (H)		
1.	Discrete data	Data that can only take particular values
2.	Continuous data	Data that can take any value and has come from a measurement.
3.	Cumulative Frequency	A running total of frequencies.
4.	Lower Quartile	The value that 25% of data falls below and 75% of data is above.
5.	Upper Quartile	The value that 75% of data falls below and 25% of data is above.
6.	Consistency	How close to the average all the data is.
7.	Interquartile Range	Upper Quartile – Lower Quartile A measure of consistency
8.	Box Plot	A diagram that displays the median, quartiles, and lowest and highest values.
9	Outlier	A piece of data that is unlike all other data collected.
10	Class width	The length of an interval of a group.
11.	Frequency Density	Frequency density = $\frac{frequency}{class\ width}$
12.	Histogram	A diagram for continuous data. Shows frequency densities as bars. The area of each bar represents the proportion of frequency in that group.

Transformations (H)		
1.	Translation	The movement of a shape by a vector.
2.	Rotation	The rotation of a shape by an angle around a point.
3.	Reflection	Mirror image of a shape in a line.
4.	Enlargement	When an object is enlarged (could be smaller) about a point.
5.	Invariant	Remains in the same position after a transformation.

Y11 Mathematics – An ambitious curriculum, rich in skills and knowledge, which prepares you to be future leaders through your learning of problem-solving.

Congruence (H)		
1.	Congruent	Two shapes that have exactly the same measurements.
2.	$\angle ABC$	The angle at B.
3.	SAS	Side-Angle-Side
4.	ASA	Angle-Side-Angle
5	SSS	Side-Side-Side
6	RHS	Right angle – Hypotenuse – Side

Vectors (H)		
1.	Scalar	A number without a direction (not a vector).
3.	Parallel	Two vectors are parallel if one is a scalar multiple of the other.
2.	Collinear	Points that line within the same straight line. In vectors, they are collinear if they are parallel and share a point.

Gradients and Area Under a Graph (H)		
1.	Tangent	A straight line that touches a curve at a point.
2.	Trapezium Rule	A method of splitting the area under a curve into small trapezia to estimate the area under a curve.
3.	Distance	The area under a speed-time or velocity time graph.
4.	Acceleration	The gradient of a velocity time graph or speed-time graph. Can be found using a tangent.

Kinematics (H)		
1.	Displacement (S)	How far an object is from where it started.
2.	Initial velocity (U)	The velocity an object has at the start of a measured journey.
3.	Final velocity (V)	The velocity of an object at the end of a measured journey.
4	Acceleration (A)	The rate of change of velocity.
5	Time (T)	How long has passed in a measured journey.

Graph Transformations (H)		
1.	$y = f(x)$	The graph of a function f.
2.	$y = f(x) + a$	A translation of the graph upward by a, $\begin{pmatrix} 0 \\ a \end{pmatrix}$ Add a to each y coordinate.
3.	$y = af(x)$	Stretch the graph in the y axis by a factor of a. Multiply each y coordinate by a.
4.	$y = f(x + a)$	A translation of the graph left by a, $\begin{pmatrix} -a \\ 0 \end{pmatrix}$ Subtract a from each x coordinate.
5.	$y = f(ax)$	Shrink the graph in the x axis by a factor of a. Divide each y – coordinate by a.
6.	$y = -f(x)$	Reflect the graph in the x-axis. Multiply the y-coordinates by -1.
7.	$y = f(-x)$	Reflect the graph in the y-axis. Multiply the x-coordinates by -1.

Generic	I think …..... In my opinion ….... I agree/disagree with …. because ….... The answer is …..... because ….... Another way of looking at this is ….....
History	This links to my next point because... The source is a... The source was made in…
Geography	An example of this is... This means that... One positive/negative reason is... Overall, I believe that... The evidence in the figure/source is
English	The writer first establishes the idea that… when he/she chooses to focus on… It is clear that… This is established/reinforced/developed through the writer's use of…

Science	I can conclude from the data that… (we then often follow the format) as _____ increases/decreases, _____ increases/decreases The pattern the data shows is… One key fact from the topic was…
ART	To further develop my idea, I could..... In my opinion..... I have taken inspiration from.....
HSC	This is a strength because..... This is a weakness because ..... I conclude ....
Maths	..... is incorrect because..... Another way to work this out is..... The mistake is that.....
EAL	I like... because I don't like..... because I think ….....

PE	This is a strength because..... This is a weakness because ..... I conclude ....
IT	I agree/disagree with ….because ……. The answer is ……. because ……. I could have improved my work by …….
Performing Arts	Within my performance I ... I would suggest they... to improve their performance, They use these techniques in their work to show…
Music	As I listened to the music I felt… This sounds like… I would suggest they... to improve their performance …….
Technology	The design could do with… Aspects I found difficult were… If I was to do this again I would…

BTEC Tech Award Dance /Component 3

Structure of the Exam
- Activity 1: an ideas log (up to 800 words).
- Activity 2: a skills log (up to 800 words).
- Activity 3: a digital recording of a workshop performance to an audience of between 7 to 15 minutes per group performance of between 5 to 10 minutes.
- Activity 4: an evaluation report (up to 800 words).

Common Misconceptions:
- Describing the narrative of the piece instead of explaining how you have interpreted the brief.
- Not linking your ideas for the piece to the brief.
- Not be specific about how the ideas in your piece meet the requirements of the brief.
- Not linking your ideas to the work of professional practitioners you have studied.
- Not identifying your **individual contribution** to the interpretation of the brief, exploration and development of ideas and planning.

	Key Term	Explanation
1	**Concept of Performance**	What is the piece about and how is this going to be portrayed to the target audience
2	**Style of Performance**	What form does the piece take (dance / drama / musical theatre)
3	**Purpose of the performance**	Why the piece is being created? (to educate, to inform, to entertain, to celebrate, to challenge viewpoints, to provoke, to raise awareness)
4	**Target Audience**	The people you are creating your performance piece for (age range, interest, group)
5	**Planning and Managing resources**	The things you need to create and perform your piece (music, projections, props, rehearsal space, costume, rehearsal schedule)
6	**Exploration of ideas**	The different way you have experimented with ideas for your piece (mind mapping, researching, structured improvisation story boarding, character exploration)

	Performance types / practitioner style	Definition	Stylistic Features
7	Naturalism (Stanislavski)	A form of theatre that attempts to create a perfect illusion of reality through a range of dramatic and theatrical strategies	• The fourth wall. • Everyday conversations and style of speaking. • Ordinary people. • representation of real life that is still theatrically effective.
8	Epic Theatre (Brecht)	A form of theatre that reminded the audience that they were watching theatre; a presentation of life, **not** real life itself.	• Breaks the fourth wall. • Direct address • Using placards / technology • Use of songs or music
9	Verbatim	A form of documentary theatre, it allows theatre makers to explore events and themes through the words of people at the heart of them	• created from the transcription of interviews. • based on research. • characters often represent a specific, real person.
10	Physical theatre	A form of theatre that puts emphasis on movement rather than dialogue.	• Gesture • Proximity • Movement / no movement • Mask work • Dance work
11	Theatre in education	Theatre in education is used to encourage effective learning in schools.	• designed to stimulate reaction and participation from its small audience, • targeting an area for a particular year group in a school's PSHE curriculum. • designed for a young audience.
12	Contemporary dance	Contemporary dance is a style of expressive dance that combines elements of several dance genres including modern, jazz, lyrical and classical ballet.	• communicates a story through movement. • Physical skills • Expressive skills • Technical skills

	Physical Skills *Aspects enabling effective performance*	
13	**Accuracy**	How well the actions are replicated
14	**Alignment**	Correct placement of body parts in relation to each other.
15	**Balance**	A steady or held position achieved by an even distribution of weight.
16	**Coordination**	The efficient combination of body parts.
17	**Control**	The ability to start and stop movement, change direction and hold a shape efficiently
18	**Dynamic Range**	How the dancer moves (fast, slow, aggressive, elegant)
19	**Extension**	Lengthening one or more muscles or limbs.
20	**Flexibility**	The range of movement in the joints
21	**Focus**	A central point or focus of attention in the movement space
22	**Isolation**	An independent movement of part of the body.
23	**Movement memory**	Remembering the order of the movements
24	**Posture**	The way the body is held.
25	**Strength**	Muscular Power
26	**Stamina**	Ability to maintain physical and mental energy over periods of time.

	Expressive Skills *Aspects that contribute to performance artistry and that engage the audience*	
27	**Projection**	The energy the dancer uses to connect with and draw in the audience.
28	**Focus**	Use of the eyes to enhance performance or interpretative qualities.
29	**Spatial Awareness**	Consciousness of the surrounding space and its effective use.
30	**Facial Expressions**	Use of the face to show mood, feeling or character.
31	**Musicality**	The ability to make the unique qualities of the accompaniment evident in performance.

	P1 Energy key words	
1	Energy store	Where energy can be stored and measured. Measured in Joules (J)
2	Kinetic energy store	The energy an object possesses by being in motion. Linked to both the speed and mass of the object
3	Gravitational potential energy store	The energy an object possesses from being lifted against gravity
4	Elastic potential energy store	The energy stored in a stretched, compressed or twisted material
5	Chemical energy store	The energy stored in chemical bonds
6	Internal (Thermal) energy store	The energy stored in an object due to its temperature, hotter objects have greater internal energy
7	Nuclear energy store	The energy stored between protons and neutrons in a nucleus
8	Magnetic energy store	The energy stored between magnets held apart
9	Electrostatic energy store	The energy stored between charged particles
10	Energy pathway	A way of transferring energy between stores
11	Mechanical pathway	When a force acts and work is done to transfer energy
12	Electrical pathway	When a current flows
13	Heating pathway	Energy transfer due to a difference in temperature
14	Radiation pathway	Energy transfer by waves (e.g., light, microwaves, sound)
15	Work done	The distance an object moves in the direction of a force
16	Power	The amount of energy transferred each second, measured in Watts (W)
17	Efficiency	A measure of how well energy is transferred to a useful store
18	Energy conservation	How much of the original energy ends up in the store it is intended for. Trying to waste as much energy as possible
19	Dissipation	The spreading out of wasted energy to the surroundings
20	Lubricant	A substance that reduces friction between surfaces
21	Energy resource	A way of making energy for human use such as in homes, offices etc.
22	Renewable energy resource	A resource that never runs out e.g., wind, solar, tidal
23	Non-renewable resource	A resource with a finite amount available e.g. coal, oil, gas, nuclear

	P2 Electricity key words	
1	Electric component	A working part of a circuit e.g., a light
2	Potential difference	Energy transferred per unit of charge, the driving force of a circuit
3	Electric charge	The charges within a circuit that can move and transfer energy
4	Electric current	The rate of flow of charge in a closed circuit
5	Resistance	The slowing down of electric current by a component in a circuit
6	Series circuit	A circuit with only one pathway/loop
7	Parallel circuit	A circuit with two or more pathways/loops
8	Direct current	Current that flows in only 1 direction due a fixed potential difference
9	Alternating current	Current that is constantly changing direction due to a constantly changing potential difference
10	National grid	The system of wires and transformers that links power stations to consumers
11	Live wire	The **brown** wire connected to the national grid in domestic appliances
12	Neutral wire	The **blue** wire that completes a circuit within an appliance
13	Earth wire	The **striped** wire that connects to the earth as a safety precaution in metal domestic appliances
14	Transformer (T)	A device to increase or decrease the potential difference in the national grid.

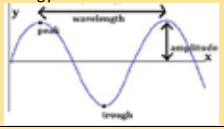
15	Static charge (T)	The build up of electrons on an insulator caused by friction between insulators. Creates an electric field around the charged object
16	Electric field (T)	The area around a charged object in which a force would be exerted by another charged object.

	P3 – particle model key words	Taught in Y9
1	Mass (m)	The amount of matter in a substance, measured in kg
2	Volume (V)	The amount of space a substance takes up, measured in m^3
3	Density (ρ)	How tightly packed matter is within a substance, measured in kg/m^3 or g/cm^3 Calculated using the equation density = mass/volume
4	System	An object or group of objects that can be considered closed off from the external world
5	Temperature	A measure of the average kinetic energy of all particles within a system, measured in °C
6	Internal energy	The total energy stored within a system, made up of the kinetic and potential energies of all particles within the system
7	Kinetic energy of particles	The speed at which the particles in a system are moving
8	Potential energy of particles	The amount that particles within a system can move. Solids have very low potential energy; gases have very high potential energy
9	Heating	The transfer of energy from a hotter object to a cooler one
10	Specific heat capacity	The energy required to change the temperature of 1kg of substance by 1°C, measured in J/kg°C.
11	Latent	Hidden or unseen
12	Specific latent heat of fusion	The energy required to change 1kg of substance from solid to liquid
13	Specific latent heat of vaporization	The energy required to change 1kg of substance from liquid to gas
14	Pressure	The force per unit area, measured in Pascals (Pa)
15	Gas pressure	The force on the walls of a container from the gas particles colliding. This force is at right angles to the walls of the container

	P4 atomic structure and radiation key words	
1	Proton	Sub-atomic particle found in the nucleus of the atom. Relative mass of 1 and charge of +1
2	Neutron	Sub-atomic particle found in the nucleus of the atom. Relative mass of 1 and charge of 0
3	Electron	Sub-atomic particle found orbiting the nucleus of the atom. Relative mass of 0 and charge of -1
4	Atomic number	The number of protons in an atom. This is the smaller of the two numbers for each element in the periodic table
5	Mass number	The number of protons and neutrons in an atom. The larger of the two numbers for an element in the periodic table
6	Isotope	Atoms of an element with the same number of protons but different numbers of neutrons
7	Radiation	The emission of electromagnetic waves or sub-atomic particles from an object
8	Radioactive source	A source which emits ionizing radiation in the form of alpha, beta of gamma
9	Activity	The rate at which a radioactive source decays
10	Count rate	The number of radioactive decays per second measured by a detector
11	Alpha particle α	Two protons and two neutrons – the same as a helium nucleus

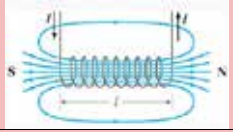
12	Beta particle β	A high energy electron emitted from the nucleus when a neutron turns into a proton
13	Gamma ray ϒ	A high energy electromagnetic wave emitted from the nucleus
14	Half life	The time taken for half of the atoms in a radioactive source to decay **or** the time taken for the count rate from a radioactive source to reduce by half
15	Irradiation	The process of exposing an object to radiation. This does not make the irradiated object radioactive
16	Contamination	When radioactive atoms become present in a material where they should not be.
17	Background radiation (T)	Natural sources of radiation that is around us all the time
18	Nuclear fission (T)	The splitting of a large unstable nucleus to release energy
19	Nuclear fusion (T)	The joining of two lighter nuclei to make a larger nucleus.

P5 – Forces and motion		**Taught in Y10**
1	Scalar	A measurement that has both only magnitude e.g. distance, speed, time, temperature.
2	Vector	A measurement that has both magnitude and direction e.g. displacement, velocity, acceleration.
3	Force (F)	A push or pull on an object due to the interaction with another object, measured in Newtons (N).
4	Contact force	A force that can only act when objects are touching.
5	Non-contact force	A force that can act when objects are not touching.
6	Resultant force	The force left over when all forces have been resolved.
7	Gravity (g)	A force between all objects of mass. A very weak force, we only notice it with very large objects e.g. a planet.
8	Mass (m)	The amount of matter in a substance, measured in kg.
9	Weight (W)	The force acting on an object due to gravity.
10	Work Done (W)	The energy transferred by a force moving an object in the direction of the force.
11	Spring constant	The force required to stretch a spring 1m. Different for all springs.
12	Moment of a force (M) ^	The turning effect of a force.
13	Fluid (liquid or gas)	The force on the walls of a container from the fluid particles colliding. This force is at right angles to the walls of the container.
14	Atmospheric pressure (T)	The pressure on a body from the particles of air colliding with it.
15	Distance	The total distance travelled by an object. Distance is a scalar quantity.
16	Displacement	The distance in a straight line from start point and end point. Displacement is a vector quantity.
17	Speed	How fast an object is moving. Speed is a scalar quantity.
18	Velocity	Speed in a given direction. Velocity is a vector quantity.
19	Acceleration	The change in velocity of an object in a given time. Acceleration is a vector quantity.
20	**Newton's First Law**	**An object at rest remains at rest and an object in motion remains in motion with the same speed and same direction unless acted upon by an external force.**
21	**Newton's Second Law**	**The acceleration of an object is proportional to the force on the object and inversely proportional to the mass of the object**. The bigger the force the bigger the acceleration, the bigger the mass the smaller the acceleration.
22	**Newton's Third Law**	**Every action has an equal and opposite reaction.** When two objects interact the exert an equal and opposite force on one another.
23	Stopping distance	The sum of the thinking and braking distances of a vehicle.
24	Thinking distance	The distance travelled between the driver seeing an obstacle and applying the brakes.
25	Braking distance	The distance travelled by a vehicle after the driver has applied the brakes.
26	Momentum	A property of moving objects linked to the mass and velocity of the object.
27	Conservation of momentum	In a closed system the momentum before an event is equal to the momentum after the event.
28	Closed system	This is where the objects in focus can be considered closed off from the rest of the world.

P6 Waves key words		
1	Wave	A transfer of energy from one place to another. No matter is transferred by a wave.
2	Transverse wave	A wave in which the vibration is perpendicular to the direction of energy transfer. 
3	Peak	The top of the wave.
4	Trough	The bottom of the wave.
5	Amplitude	The displacement of the wave from the mid-point. The distance from the mid-point of the wave to the peak or trough .
6	Longitudinal wave	A wave in which the vibration is parallel to the direction of energy transfer. 
7	Compression	An area of increased pressure in a longitudinal wave. Where particles are closer together.
8	Rarefaction	An area of decreased pressure in a longitudinal wave. Where particles are further apart.
9	Wavelength	The distance from a point on one wave to the identical point on an adjacent wave e.g., peak to peak or trough to trough on a transverse wave. Compression to compression on a longitudinal wave.
10	Period	The time taken for one complete wave to pass a point. Measured in seconds.
11	Frequency	The number of waves that pass a point in a second. Measured in Hertz (Hz).

12	Wave speed	The speed at which a wave travels. Measured in meters per second (m/s).
13	Reflection (T)	The bouncing of a wave off an object e.g., a mirror for light.
14	Transmission (T)	The passing of a wave through a medium (object or substance).
15	Refraction (T)	The change in direction of a wave, due to the change in speed of a wave, when it enters a new medium (substance or object). This is a form of transmission.
16	Absorption (T)	An object absorbing the energy in a wave. The wave ceases to exist if it is absorbed. Absorption causes an increase in temperature.
17	Electromagnetic wave	A wave from the electromagnetic spectrum.
18	Electromagnetic spectrum	The differing waves of the electromagnetic spectrum and their decreasing wavelength, increasing frequency. 
19	Lens (T)	An object that refracts light to form an image. E.g. glasses, magnifying glass, microscope.
20	Concave lens (T)	A lens that is wider at the top and bottom than the middle. 
21	Convex lens (T)	A lens that is wider in the middle than the top and bottom. 
22	Magnification (T)	The increase or decrease in size of an image compared to the object.
23	Black body (T)	An object that does not emit its own light. All bodies (objects) absorb and emit infrared radiation. The warmer the body (object) the more radiation it emits.

24	Perfect black body (T)	A body (object) that absorbs all of the radiation incident upon it. A good absorber will also be a good emitter of radiation, so a perfect black body will also be a perfect emitter of radiation.

P7 Magnetism and electromagnetism		
1	Permanent magnet	An object that produces its own magnetic field. This will have a north pole and a south pole. Magnetic metals are iron, nickel and cobalt.
2	Induced magnet	A material that becomes a magnet when placed in a magnetic field.
3	Magnetic field	The area around a magnet where a force acts on another magnet or magnetic material (iron, nickel, cobalt). The force between a magnet and magnetic material is always attraction. The force between two magnets can be attraction or repulsion.
4	Electromagnet	When a current passes through a wire a magnetic field is induced around the wire.
5	Solenoid	Several loops of wire. Wire is looped to increase the strength of the magnetic field around the wire and create a magnetic field similar to that of a bar magnet. 
6	Motor effect	When a current carrying a wire is placed inside a magnetic field the two magnetic fields interact causing a force on the wire.
7	Fleming's left-hand rule	A rule used to find the direction of force due to the motor effect. Thumb shows direction of force, first finger the direction of magnetic field lines, second finger the direction of current. 
8	Induced potential (T)	When a wire is moved within a magnetic field a potential difference is produced in the wire. If the wire is part of a complete circuit a current will flow.
9	Generator effect (T)	Moving a coil of wire within a magnetic field creates a potential difference in the wire. This is used to generate electricity in power stations.
10	Alternator (T)	A generator used to produce an alternating current.
11	Dynamo (T)	A generator used to produce a direct current.
12	Transformer (T)	A device used to increase or decrease the size of potential difference and current within a wire.

P8 Space physics – physics only (T)		
1	Solar system	Our solar system consists of sun, 8 planets and dwarf planets orbiting the sun.
2	Milky Way galaxy	The galaxy that our sun and solar system is part of.
3	Nebula	Cloud of dust and gas that will form a star.
4	Star life cycle	The cycle that all stars go through from formation to death.
5	Orbit	The circular motion of an object around another, held a certain distance from the object by gravity.
6	Doppler effect	The effect of increasing the wavelength from an object as it travels away from a point.
7	Red-Shift	Stars moving away from us have wavelengths towards the red end of the spectrum due to the Doppler effect.

Physics units

	Unit	Symbol	Measured in
1	Mass	m	Kilograms (kg)
2	Volume	V	Meters cubed (m^3)
3	Density	ρ	Kilograms per meter cubed (kg/m^3)
4	Distance	s	Meters (m)
5	Time	t	Seconds (s)
6	Temperature	T	Degrees Celsius (°C)
7	Frequency	f	Hertz (Hz)
8	Electric charge	Q	Coulombs (C)
9	Electric current	I	Amperes (A)
10	Potential difference	V	Volts (V)
11	Resistance	R	Ohms (Ω)
12	Speed	v	Meters per second (m/s)
13	Acceleration	a	Meters per second squared (m/s^2)
14	Momentum	p	Kilogram meters per second (kgm/s)
15	Force	F	Newtons (N)
16	Pressure	P	Pascals (Pa)
17	Energy	E	Joules (J)
18	Power	P	Watts (W)

AQA GCSE Physics – Equations & Formulae (specification 8463 & 8464)

Unit 1: Energy

Equations to Learn	
kinetic energy = $\frac{1}{2}$ × mass × speed^2	$E_K = \frac{1}{2}mv^2$
GPE = mass × gravitational field strength × height	$E_p = mgh$
power = $\frac{\text{work done}}{\text{time taken}} = \frac{\text{energy transferred}}{\text{time taken}}$	$P = \frac{W}{t} = \frac{E}{t}$
efficiency = $\frac{\text{useful energy output}}{\text{total energy input}}$ efficiency = $\frac{\text{useful power output}}{\text{total power input}}$	
Equations given in the exam	
elastic potential energy = 0.5 × spring constant x (extension)^2	$E_e = \frac{1}{2}ke^2$
change in thermal energy = mass × specific heat capacity × temperature change	$\Delta E = mc\Delta\theta$

Unit 2: Electricity

Equations to Learn	
charge flow = current × time	$Q = I\,t$
potential difference = current × resistance	$V = I\,R$
total resistance = resistance of component 1 + resistance of component 2	$R_T = R_1 + R_2$
power = current × potential difference	$P = I\,V$
power = (current)^2 × resistance	$P = I^2R$
energy transferred = power × time	$E = Pt$
energy transferred = charge flow × potential difference	$E = QV$

* Higher tier only

^ Separate Physics only

Unit 3: Particle Model of Matter

Equations to Learn	
density = $\frac{\text{mass}}{\text{volume}}$	$\rho = \frac{m}{V}$
Equations given in the exam	
change in thermal energy = mass × specific heat capacity × temperature change	$\Delta E = mc\Delta\theta$
thermal energy for a change in state = mass × specific latent heat	$E = mL$
^ for a gas: pressure × volume = constant	$pV = constant$

Unit 6: Waves

Equations to Learn	
wave speed = frequency × wavelength	$v = f\,\lambda$
Equations given in the exam	
time period = $\frac{1}{\text{frequency}}$	$T = \frac{1}{f}$
^ magnification = $\frac{\text{image height}}{\text{object height}}$	$M = \frac{h_{image}}{h_{object}}$

Unit 7: Magnetism and Electromagnetism

Equations given in the exam	
* Force = magnetic flux density × current × length of conductor in magnetic field	$F = BIl$
* $\frac{\text{potential difference across primary coil}}{\text{potential difference across secondary coil}} = \frac{\text{number of turns in primary coil}}{\text{number of turns in secondary coil}}$	$\frac{V_P}{V_S} = \frac{N_P}{N_S}$
* ^ p.d across primary × current in primary = p.d. across secondary x current in secondary	$V_P I_P = V_S I_S$

Unit 5: Forces

Equations to Learn	
weight = mass × gravitational field strength	$W = m\,g$
work done = force × distance (moved along the line of action of the force)	$W = Fs$
force = spring constant × extension	$F = ke$
moment of a force = force × distance (perpendicular to the direction of the force)	$M = Fd$
pressure = $\frac{\text{force normal to a surface}}{\text{area of that surface}}$	$p = \frac{F}{A}$
distance travelled = speed × time	$s = vt$
acceleration = $\frac{\text{change in velocity}}{\text{time taken}}$ = $\frac{\text{final velocity-initial velocity}}{\text{time taken}}$	$a = \frac{\Delta v}{t}$ $= \frac{v-u}{t}$
resultant force = mass × acceleration	$F = ma$
* momentum = mass × velocity	$p = mv$
Equations given in the exam	
* ^ Pressure = height of column × density of liquid × gravitational field strength	$p = h\,\rho\,g$
^ (final velocity)^2 – (initial velocity)^2 = 2 × acceleration × distance	$v^2 - u^2 = 2as$
* ^ Force = $\frac{\text{change in momentum}}{\text{time taken}}$	$F = \frac{m\,\Delta v}{t}$

Unit 4: Atomic Structure & Unit 8: Space

There are no equations in these sections of the course

BTEC Sport Knowledge Organiser – Unit 3

Key Vocabulary – Skill-related fitness

1. **Agility –** the ability to quickly and precisely move or change directions without losing balance or time
2. **Balance –** the ability to maintain the centre of mass over a base of support
3. **Static balance** – no movement – headstand position
4. **Dynamic balance** – there is movement – not falling over when performing a cartwheel
5. **Coordination –** the smooth flow of movement needed to perform a motor task smoothly and efficiently
6. **Power –** the product of strength and speed expressed as the work done in a unit of time.
7. **Reaction Time –** time taken to respond to a stimulus and the initiation of their response

Key Vocabulary – Exercise Intensity

8. **Intensity –** how hard an athlete is working, judged by measuring **heart rate (HR)**
9. **Training Threshold –** the level of intensity recommended to improve cardiovascular health and fitness (60-85% of HR max)
10. **Borg Scale** – Rate of Perceived Exertion – How hard an individual thinks they are working on a scale of 6 – 20.

11. Max Heart rate = 220 - age

12. Training Zone = 60% - 85% of max heart rate

	Short Term Effects of Exercise	Long Term Effects of Training
Cardiovascular System	• Heart rate increases • Increased stroke volume • Increased cardiac output • Blood pressure increases • Vascular shunting takes place	• Increased strength of heart muscle • Increased size of heart • Increased resting stroke volume • Drop in resting heart rate • Increased maximum cardiac output • Increased capillarisation • Increase in number of red blood cells • Quicker recovery rate after exercise to return to resting heart rate
Respiratory System	• Increased breathing/ventilation rates • Increased depth of breathing • Oxygen debt	• Increased strength of diaphragm • Increased strength of external intercostal muscles • Increased tidal volume • Increased vital capacity • Increased number of alveoli

Key Vocabulary – Principles of training

21. Progressive Overload – In order to progress, training needs to be demanding enough to cause the body to adapt, improving performance

22. Specificity – training should be specific to the individual's sport, activity or physical/skill-related fitness goals to be developed

23. Individual differences/needs – the programme should be designed to meet the individual training goals and needs

24. Adaptation – How the body reacts to training loads by increasing its ability to cope with those loads

25. Reversibility – if training stops, or the intensity of training is not sufficient to cause adaptation, training effects are reversed.

26. Variation – Very the training regime to avoid boredom and maintain enjoyment

Key Vocabulary – Components of Physical Fitness

11. Aerobic Endurance – the ability of the cardio-respiratory system to work efficiently, supplying nutrients and oxygen to working muscles during sustained physical activity

12. Muscular Endurance – the ability of the muscles to work efficiently, where a muscle can continue contracting over a period of time against a light to moderate fixed resistance load.

13. Muscular Strength – the maximum force (in kg or N) that can be generated by a muscle or group

14. Muscular endurance – the ability to use voluntary muscles many times without getting tired

15. Flexibility – having adequate range of movement in all joints of the body; the ability to move the joint fluidly through its full range of movement

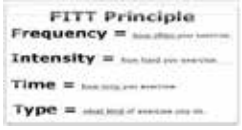
16. Body Composition – the relative ratio of fat mass to fat-free mass (vital organs, muscle and bone) in the body

17. Speed – distance divided by time taken, measured in m/s.

18. Accelerative Speed – sprints of up to 30m

19. Pure Speed – sprints up to 60m

20. Speed Endurance – sprints with short recovery period in between.



YEAR 11 TEXTILES KNOWLEDGE ORGANISER – UNIT 3 STREET FESTIVAL.

Keywords.

1.Formal Elements: Line, Tone, Colour, Pattern, Shape, Texture and Form

2.Line: Line is the path left by a moving point.

3.Shape: Shape is an area enclosed by a line.

4.Tone: This refers to the lightness or darkness of something.

5.Pattern: A design that is created by repeating lines, shapes, tones or colours.

6.Surface texture: Refers to the surface quality in a work of art.

7.Media: The material used to create artwork.

8.Technique: The way tools and media are used to create artwork.

9.Stitch and Slash: It involves **stitching** together two or more layers of fabric one on top of the other in parallel diagonal lines (bias) and cutting through the top layers leaving the base layer intact.

10.Mola: A fabric manipulation method where designs are cut out of the top layer of fabric and then layers are added underneath.

11.Silk Painting: Designs are outlined with gutta or water-based resists.

12.Couching: In embroidery, couching is a techniques in which yarn or other materials are laid across the surface of the fabric and fastened in place with small stitches of the same or a different yarn.

13.Embroidery: Using a needle to apply thread or yarn.

14.Angelina Fibres: Glittery strands that can be incorporated into your wet felting, needle felting or spinning.

Command Words.

1. **Research**: The process of solving problems and finding facts in an organised way.
2. **Analyse:** Identify several relevant factors, show how they are linked, and explain the importance
3. **Method:** A procedure, technique, or way of doing something
4. **Evaluation:** Bring together all your information and make a judgement on the Importance or success of something.
5. **Generate Ideas:** The process of creating, developing, and communicating abstract, concrete, or visual ideas.
6. **Develop:** To grow or change into a more advanced or stronger form or idea.
7. **Refine:** To make improvements to the idea.

Sketchbook

- Artist research
- Experiment with a range of materials.
- Experiment with colour, line, shape, space.
- Annotations to show reflections on their work and that of others.

Home Learning Priorities

Planner

Monday 3rd	
Tuesday 4th	
Wednesday 5th	
Thursday 6th	
Friday 7th	

Monday 10th	
Tuesday 11th	
Wednesday 12th	
Thursday 13th	
Friday 14th	

Monday 17th	
Tuesday 18th	
Wednesday 19th	
Thursday 20th	
Friday 21st	

Monday 24th	
Tuesday 25th	
Wednesday 26th	
Thursday 27th	
Friday 28th	

Monday 31st	
Tuesday 1st	
Wednesday 2nd	
Thursday 3rd	
Friday 4th	

Monday 7th	
Tuesday 8th	
Wednesday 9th	
Thursday 10th	
Friday 11th	

Monday 21st	
Tuesday 22nd	
Wednesday 23rd	
Thursday 24th	
Friday 25th	

Monday 28th	
Tuesday 1st	
Wednesday 2nd	
Thursday 3rd	
Friday 4th	

Monday 7th	
Tuesday 8th	
Wednesday 9th	
Thursday 10th	
Friday 11th	

Monday 14th	
Tuesday 15th	
Wednesday 16th	
Thursday 17th	
Friday 18th	

Monday 21st	
Tuesday 22nd	
Wednesday 23rd	
Thursday 24th	
Friday 25th	

Monday 28th	
Tuesday 29th	
Wednesday 30th	
Thursday 31st	
Friday 1st	

Ambition . Knowledge . Determination . Leadership

Ambition

My short, mid term and long term ambitions are:

Knowledge

The subjects I need to work hardest in this term are:

	Target grade
English	
Maths	
Science	

Ambition . Knowledge . Determination . Leadership

Determination

One area I need to improve in is:

Leadership

One way in which I will help others to show leadership is:

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