Year 11 Art Leadership Guide: Component 1

Careers linked to this topic can include things like Professional Artist, Illustrator, Portrait Photographer, Landscape Photographer, Curator, Printmaker, Wildlife Photographer, Courtroom Sketch Artist, Tattoo Artist.

Week/ Topic	I will need to know:	So that I can:
1 DEVELOPMENT OF IDEAS	What stage is my project at currently? What has/has not worked so far What materials have worked well, and what further materials do I want to **experiment** with? How can I create mixed media pieces of work?	Create a visual mind map of current recurring themes, artists that have been used as reference, inspirational images, primary photographs, sketches, and making notes about any ideas you would like to explore moving forward
2 DEVELOPMENT OF IDEAS	What existing artwork is inspiring my project? What photographs do I need to create as references for my artwork moving forward? How to plan these photographs using sketches, mind map/annotation, and existing **inspirational** images	Plan a photoshoot for a set of primary photos which has been curated to suit the themes established in my project so far Homework: carry out the photoshoot which should result in a minimum of 30 high quality photographs
3 DEVELOPMENT OF IDEAS	How to edit my photographs to link to the **themes** I have established in my visual mind map	Create 2x A5 artworks from my photo edits
4 DEVELOPMENT OF IDEAS	How to use my chosen **materials** effectively and to a high standard so that I get the desired outcomes from my artwork	Create 2x a5 artworks from my photo edits
5 DEVELOPMENT OF IDEAS	How to combine key themes/**imagery** from photographs I have taken in my recent photoshoot	**Begin considering designs for my final piece**

Year 11 Art Leadership Guide: Component 1

Careers linked to this topic can include things like Professional Artist, Illustrator, Portrait Photographer, Landscape Photographer, Curator, Printmaker, Wildlife Photographer, Courtroom Sketch Artist, Tattoo Artist.

Week/ Topic	I will need to know:	So that I can:
6 FINAL IDEAS	How to create 3 different designs that all clearly link to my project and my chosen themes. How to clearly show inspiration in the designs from artists and other **references** that I have looked at in my project	Make an informed decision about which of my designs is the strongest and best summarises my themes and ideas from my project
7 FINAL IDEAS	How to experiment using a variety of artistic materials How to combine these materials effectively to create **mixed media** artworks	Begin planning for my final outcomes including colour schemes and material experimentations
8 PLANNING FOR OUTCOMES	Which of my designs I will be selecting and which materials and **colour schemes** I will be using	Create an A4 mock-up of my final piece
9 PLANNING FOR OUTCOMES	Which of my designs I will be **selecting** and which materials and colour schemes I will be using	Create an A4 mock-up of my final piece
10 FINAL PIECE	Create my **final piece** in minimum A3 size	Create my final piece in minimum A3 size

Year 11 Subject Leadership Guide: BTEC Sport (Pearson BTEC Level 1/Level 2 Tech Award in Sport – Component 3)

Careers where I can use this learning include: Sports Journalism, Sports Coach, Personal Trainer, PE Teacher, Physiotherapist, Sports Agent. I will be developing skills such as writing styles, communication, planning, time management and teamwork both theoretically and practically.

Week/ Topic	I will need to know:	So that I can:
1 Components of physical fitness	1. The definitions of each component of physical fitness and their potential impact on sporting performance. 2. The components of physical fitness are: Aerobic Endurance, Muscular Endurance, Muscular Strength, Speed, Flexibility and Body Composition 3. Examples of how these physical fitness components can be shown in a range of Physical Activities	1. Name the different components of physical fitness 2. Define each of the physical fitness components 3. Explain accurate examples of physical fitness Components in Sport
2 Skill-Related fitness components	1. The definitions of each component of Skill-Related fitness and their potential impact on sporting performance. 2. The components of Skill-Related Fitness are: Agility, Balance, Coordination, Power and Reaction Time 3. Examples of how these Skill-Related Fitness components can be shown in a range of Physical Activities	1. Name the different components of skill-related fitness 2. Define each of the skill-related Fitness components 3. Explain accurate examples of skill-related fitness Components in Sport
3 The importance of fitness for successful participation in sport	1. Components of Fitness are categorised into two: Physical and Skill-Related. 2. Physical Fitness Components are: Aerobic Endurance, Muscular Endurance, Muscular Strength, Speed, Flexibility and Body Composition. Skill-Related Components are: Agility, Balance, Co-Ordination, Reaction Time, Power. 3. Examples of types of sports that require specific components of fitness: Aerobic endurance – events/sports lasting more 30 minutes. Muscular endurance – events/sports lasting more 30 minutes. Agility – activities requiring quick changes of direction, e.g. dodging the opposition in a team game, freestyle skiing o reaction time – any activity where a quick decision or response to a stimulus is needed.	1. State the different components of fitness. 2. Define each physical and skill-related component of fitness. 3. Explain why specific physical activities require different components of fitness.
4 & 5 Musculoskeletal system	1. Structure and function of the synovial joints at the hip, shoulder, knee, elbow. 2. Short-term effects of exercise on the musculoskeletal system. 3. The long-term adaptations to the musculoskeletal system from taking part in physical activity.	1. State the structure and function of the synovial joints. 2. Explain the short and long-term effects of exercise on the musculoskeletal system.

Year 11 Subject Leadership Guide: BTEC Sport (Pearson BTEC Level 1/Level 2 Tech Award in Sport – Component 3)

Week/ Topic	I will need to know:	So that I can:
6 & 7 Cardiorespiratory system	1. Structures of the cardiovascular system: atria, ventricles, aorta, vena cava, pulmonary artery, pulmonary vein. 2. Structures of the respiratory system: lungs, bronchi, bronchioles, alveoli, diaphragm. 3. Short-term effects of exercise on the cardiorespiratory system. 4. Long-term adaptations of the cardiorespiratory system.	1. Demonstrate knowledge of the structures of the cardiovascular and respiratory system. 2. Explain the function of the cardiorespiratory system. 3. Explain the short and long-term effects of exercise on the cardiorespiratory systems.
8, 9 & 10 Personal information to aid training programme design	1. A personal exercise training programme consists of a series of different exercises over a period of time which aids in reaching an end goal. 2. SMARTER principle when goal setting. Specific, Measurable, Achievable, Realistic, Time-related, Exciting, Recorded. 3. Short-term goals (set over a short period of time, between one day and one month. Medium-term goals (should give progressive support towards achievement of long-term goals) Long-term goals (what they want to achieve in the long term, and the best way of doing this). 4. PAR-Q stands for Physical Activity Readiness Questionnaire. This surveys any risks to injuries or medical conditions when taking part in physical activity.	1. Define a personal exercise training programme and complete a PAR-Q document. 2. Explain the different types of goals individuals can set. 3. Begin to apply the SMARTER principle to goal setting.
11 Leaders Prep	1. To prepare yourself for the November Mock, please revise all topics that have been explored within Weeks 1 -10. 2. Create flashcards, posters and complete sample past papers.	

Year 11 Science Leadership Guide: Bioenergetics and Homeostasis

Careers linked to this cycle can include Sport Science, Agriculture and Medicine.

Week/ Topic	I will need to know:	So that I can:
1 Photosynthesis	1. Photosynthesis is represented by the equation: carbon dioxide + water → (light) → glucose + oxygen (6CO + 6H2O → C6H126O + 6O2). Factors affecting the rate of photosynthesis (light, carbon dioxide, temperature, number of chloroplasts) 2. How plants use glucose (respire, storing glucose as starch, produce and store fat/oil, produce cellulose, and production of amino acids for proton synthesis.	1. State the word and symbol equation for photosynthesis and recognise photosynthesis as an endothermic reaction in which energy is transferred from the environment to the chloroplasts by light. 2. Explain how plants use glucose.
2 Photosynthesis (Including the required practical)	1. Limiting factors of photosynthesis are temperature, light intensity, carbon dioxide concentration, and the amount of chlorophyll all affect the rate of photosynthesis. **2. Required practical** – Photosynthesis - investigate the effect of light intensity on the rate of photosynthesis using an aquatic organism such as pondweed, by counting the number of bubbles produced depending on the light intensity (distance from the lamp)	1. measure and calculate rates of photosynthesis, extract and interpret graphs of photosynthesis rate involving one limiting factor. 2. Describe and explain the photosynthesis required practical (light intensity)
3 Respiration	1. Aerobic respiration equation (oxygen + glucose □ carbon dioxide + water + energy) and understand how reactants and produces move in and out of cells via diffusion, osmosis and active transport through different areas of animal cells. 2. Anaerobic respiration (glucose □ lactic acid + energy) in animals, fermentation (glucose □ ethanol + carbon dioxide + energy) in microorganisms and bacteria. Lactic acid prevents muscle contraction but is short lived as oxygen breaks down lactic acid back to glucose when oxygen debt is repaid through increased breathing. 3. Impact of respiration on the body such as increased heart rate and breathing through increases need for oxygen and glucose for energy transfer.	1. Describe and explain aerobic respiration, including the equation and how reactants and produces enter and leave animal cells). 2. Describe and explain aerobic respiration, including the equation and how reactants and produces enter and leave animal cells). How lactic acid impacts muscle contraction. 3. Explain the body's' responses to respiration.
4 Principles of homeostasis	1. Homeostasis is the regulation of internal conditions of a cell or organism to maintain optimum functions in response to internal and external stimuli. 2. Homeostasis is maintained by biological systems of control that all have 3 common components: receptors, coordination centres and effectors.	**Progress book Mark** Questions from week 1 - 3
5 The Human Nervous system	1. The human nervous system is an example of a biological system of control. Its receptors are found in our sense organs, the coordination centre is the Central Nervous System (CNS) and the effectors can be muscles or glands (stimulus → receptor → coordinator → effector → response) 2. Reflex actions are automatic and rapid; they do not involve the conscious part of the brain.	1. Explain the differences between conscious reactions and unconscious reflexes. 2. Recall the signal pathway from stimulus to response in a reflex arc, and its importance.

Year 11 Science Leadership Guide: Bioenergetics and Homeostasis

Week	I will need to know:	So that I can:
7 Endocrine system	1. The endocrine system is a system of control that uses signalling chemicals called hormones, consisting of many glands that release hormones into the bloodstream 2. **Required practical**: plan and carry out an investigation into the effect of a factor on human reaction time, using a meter ruler to record how far and quick an individual can react.	1. Identify key glands in the human body and the hormones they produce. 2. Translate information about reaction times between numerical and graphical forms.
6 Hormonal coordination in humans	1. The endocrine system is composed of glands which secrete chemicals called hormones directly into the bloodstream. The blood carries the hormone to a target organ where it produces an effect. 2. The pituitary gland in the brain is a 'master gland' which secretes several hormones into the blood in response to body conditions. These hormones in turn act on other glands to stimulate other hormones to be released to bring about effects.	1. Describe the principles of hormonal coordination and control by the human endocrine system. 2. Identify the position of the following on a diagram of the human body: pituitary gland, pancreas, thyroid, adrenal gland, ovary, testes.
7 Control of blood glucose concentration	1. Blood glucose concentration is monitored and controlled by the pancreas. If the blood glucose concentration is too high, the pancreas produces the hormone insulin that causes glucose to move from the blood into the cells. In liver and muscle cells excess glucose is converted to glycogen for storage. 2. Type 1 diabetes is a disorder in which the pancreas fails to produce sufficient insulin, controlled by insulin injections, and type 2 diabetes is when body cells no longer respond to insulin produced by the pancreas (obesity risk), controlled by diet and exercise.	1. Explain how insulin controls blood glucose (sugar) levels in the body. 2. Compare Type 1 and Type 2 diabetes and explain how they can be treated.
8 Hormones in reproduction	1. During puberty reproductive hormones cause secondary sex characteristics to develop. 2. Oestrogen is the main female reproductive hormone produced in the ovary. Testosterone is the main male reproductive hormone produced by the testes and it stimulates sperm production.	**Progress book Mark** **Questions from week 5-7**
9 Contraception	1. Fertility can be controlled by a variety of hormonal and nonhormonal methods of contraception: oral contraceptives, injection, barrier methods such as condoms, intrauterine devices, spermicidal agents, abstaining from intercourse, and surgical methods	1. Evaluate the different hormonal and non-hormonal methods of contraception
10	**Leader's Prep:** To prepare for your upcoming assessment, you should self quiz on knowledge from weeks 1-10; revising for assessments keeps you on the path to leadership. Work hard and show your best! Ways to revise. - *1hr of Seneca per week*. This could be in the form of your homework or independent study. Strive for 80% in all tasks to ensure that you are secure on the material you are revising. - *BBC Bitesize* can use for making notes and self quizzing the knowledge that you need to know for the assessment. The also have questions on each page that are exam style questions. - *CGP Retrieval Booklets* can be used to test yourself on the knowledge that you have revised on both Seneca and BBC Bitesize.	**Final Assessment:** **AQA Foundation Biology Paper 1.** **Topics that will be assessed are:** • Cell biology • Organisation • Infection and response • Bioenergetics

Year 11 Science Leadership Guide: Bioenergetics and Homeostasis

Careers linked to this cycle can include Sport Science, Agriculture and Medicine.

Week/ Topic	I will need to know:	So that I can:
1 Photosynthesis	1. Photosynthesis is represented by the equation: carbon dioxide + water → (light) → glucose + oxygen (6CO + 6H2O → C6H126O + 6O2). Factors affecting the rate of photosynthesis (light, carbon dioxide, temperature, number of chloroplasts) 2. How plants use glucose (respire, storing glucose as starch, produce and store fat/oil, produce cellulose, and production of amino acids for proton synthesis.	1. State the word and symbol equation for photosynthesis and recognise photosynthesis as an endothermic reaction in which energy is transferred from the environment to the chloroplasts by light. 2. Explain how plants use glucose.
2 Photosynthesis (Including the required practical)	1. Limiting factors of photosynthesis are temperature, light intensity, carbon dioxide concentration, and the amount of chlorophyll all affect the rate of photosynthesis. These factors interact and any one of them may be the factor that limits photosynthesis. Limiting factors are important in the economics and maintaining profits. **2. Required practical** – Photosynthesis - investigate the effect of light intensity on the rate of photosynthesis using an aquatic organism such as pondweed, by counting the number of bubbles produced depending on the light intensity (distance from the lamp)	1. Explain graphs of photosynthesis rate involving two or three factors and decide which is the limiting factor. 2. Describe and explain the photosynthesis required practical (light intensity)
3 Respiration	1. Aerobic respiration equation (oxygen + glucose □ carbon dioxide + water + energy) and understand how reactants and produces move in and out of cells via diffusion, osmosis and active transport through different areas of animal cells. 2. Anaerobic respiration (glucose □ lactic acid + energy) in animals, fermentation (glucose □ ethanol + carbon dioxide + energy) in microorganisms and bacteria. Lactic acid prevents muscle contraction but is short lived as oxygen breaks down lactic acid back to glucose when oxygen debt is repaid through increased breathing. 3. Impact of respiration on the body such as increased heart rate and breathing through increases need for oxygen and glucose for energy transfer. Blood flowing through the muscles transports the lactic acid to the liver where it is converted back into glucose. 4. Metabolism is the sum of all the reactions in a cell or the body (respiration, conversion of glucose to starch, the formation of lipids, breakdown of proteins, and protein synthesis.	1. Describe and explain aerobic respiration, including the equation and how reactants and produces enter and leave animal cells). 2. Describe and explain aerobic respiration, including the equation and how reactants and produces enter and leave animal cells). How lactic acid impacts muscle contraction. 3. Explain the body's' responses to respiration. 4. Explain the importance of sugars, amino acids, fatty acids and glycerol in the synthesis and breakdown of carbohydrates, proteins and lipids.
4 Principles of homeostasis	1. Homeostasis is the regulation of internal conditions of a cell or organism to maintain optimum functions in response to internal and external stimuli. 2. Homeostasis is maintained by biological systems of control that all have 3 common components: receptors, coordination centres and effectors.	**Progress book Mark** Questions from week 1 - 3
5 The Human Nervous system	1. The human nervous system is an example of a biological system of control. Its receptors are found in our sense organs, the coordination centre is the Central Nervous System (CNS) and the effectors can be muscles or glands (stimulus → receptor → coordinator → effector → response) 2. Reflex actions are automatic and rapid; they do not involve the conscious part of the brain.	1. Explain how the structure of the nervous system is adapted to its functions. 2. Explain how the various structures in a reflex arc, and its importance.

Year 11 Science Leadership Guide: Cycle 1 – Bioenergetics & Homeostasis

Week	I will need to know:	So that I can:
7 Endocrine system	1. The endocrine system is a system of control that uses signalling chemicals called hormones, consisting of many glands that release hormones into the bloodstream **2. Required practical**: plan and carry out an investigation into the effect of a factor on human reaction time, using a meter ruler to record how far and quick an individual can react.	1. Identify key glands in the human body and the hormones they produce. 2. Translate information about reaction times between numerical and graphical forms.
6 Hormonal coordination in humans	1. The endocrine system is composed of glands which secrete chemicals called hormones directly into the bloodstream. The blood carries the hormone to a target organ where it produces an effect. 2. The pituitary gland in the brain is a 'master gland' which secretes several hormones into the blood in response to body conditions. These hormones in turn act on other glands to stimulate other hormones to be released to bring about effects.	1. Describe the principles of hormonal coordination and control by the human endocrine system. 2. Identify the position of the following on a diagram of the human body: pituitary gland, pancreas, thyroid, adrenal gland, ovary, testes.
7 Control of blood glucose concentration	1. Blood glucose concentration is monitored and controlled by the pancreas. If the blood glucose concentration is too high, the pancreas produces the hormone insulin that causes glucose to move from the blood into the cells. In liver and muscle cells excess glucose is converted to glycogen for storage. 2. Type 1 diabetes is a disorder in which the pancreas fails to produce sufficient insulin, controlled by insulin injections, and type 2 diabetes is when body cells no longer respond to insulin produced by the pancreas (obesity risk), controlled by diet and exercise.	1. Explain how insulin controls blood glucose (sugar) levels in the body. 2. Compare Type 1 and Type 2 diabetes and explain how they can be treated.
8 Hormones in reproduction	1. During puberty reproductive hormones cause secondary sex characteristics to develop. 2. Oestrogen is the main female reproductive hormone produced in the ovary. Testosterone is the main male reproductive hormone produced by the testes and it stimulates sperm production.	**Progress book Mark** **Questions from week 5-7**
9 Contraception	1. Fertility can be controlled by a variety of hormonal and nonhormonal methods of contraception: oral contraceptives, injection, barrier methods such as condoms, intrauterine devices, spermicidal agents, abstaining from intercourse, and surgical methods	1. Evaluate the different hormonal and non-hormonal methods of contraception
10	**Leader's Prep:** To prepare for your upcoming assessment, you should self quiz on knowledge from weeks 1-10; revising for assessments keeps you on the path to leadership. Work hard and show your best! Ways to revise. - *1hr of Seneca per week*. This could be in the form of your homework or independent study. Strive for 80% in all tasks to ensure that you are secure on the material you are revising. - *BBC Bitesize* can use for making notes and self quizzing the knowledge that you need to know for the assessment. The also have questions on each page that are exam style questions. - *CGP Retrieval Booklets* can be used to test yourself on the knowledge that you have revised on both Seneca and BBC Bitesize.	**Final Assessment:** **AQA Biology Paper 1.** **Topics that will be assessed are:** • Cell biology • Organisation • Infection and response • Bioenergetics

Year 11 Chemistry Foundation Leadership Guide: Rates of Resources

Careers linked to these topics can include things like being a chef, laboratory scientist, a dietician because they require knowledge of the rates of reactions.

Week	I will need to know:	So that I can:
1 Rate of reaction	1. Observations that can be made when a chemical rection occurs are colour change, temperature change, precipitation, effervescence, change of mass. 2. The rate of a chemical reaction can be found by measuring the quantity of a reactant used or the quantity of product formed overtime. 3. The quantity of reactant or product can be measured by the mass in grams or by a volume in cm^3. 4. The units of rate of reaction may be given as g/s or cm^3/s.	1. Calculate the mean rate of a reaction from given information about the quantity of a reactant used or the quantity of a product formed and the time taken 2. Draw, and interpret, graphs showing the quantity of product formed or quantity of reactant used up against time 3. Draw tangents to the curves on these graphs and use the slope of the tangent as a measure of the rate of reaction
2 Collision theory	1. Collision theory states that chemical reactions can occur only when reacting particles collide with each other and with sufficient energy. The minimum amount of energy that particles must have to react is called the activation energy. 2. Factors which affect the rates of chemical reactions include: the concentrations of reactants in solution, the pressure of reacting gases, the surface area of solid reactants, the temperature and the presence of catalysts. 3. Increasing the concentration of reactants in solution, the pressure of reacting gases, and the surface area of solid reactants increases the frequency of collisions and so increases the rate of reaction.	1. Recall how changing these factors affects the rate of chemical reactions 2. Predict and explain the effects of changes in the size of pieces of a reacting solid in terms of surface area to volume ratio use simple ideas about proportionality when using collision theory to explain the effect of a factor on the rate of a reaction.
3 Factors affecting rate	1. Increasing the temperature increases the frequency of collisions and makes the collisions more energetic, and so increases the rate of reaction. 2. Catalysts change the rate of chemical reactions but are not used up during the reaction. Different reactions need different catalysts. 3. Enzymes act as catalysts in biological systems. 4. Catalysts increase the rate of reaction by providing a different pathway for the reaction that has a lower activation energy.	1. Predict and explain using collision theory the effects of changing conditions of concentration, pressure and temperature on the rate of a reaction 2. Identify catalysts in reactions from their effect on the rate of reaction and because they are not included in the chemical equation for the reaction. 3. Explain catalytic action in terms of activation energy.
4 Required practical	1. Increasing the concentration of reactants in solution, the pressure of reacting gases, and the surface area of solid reactants increases the frequency of collisions and so increases the rate of reaction.	**Mid point Assessment** 1. Investigate how changes in concentration affect the rates of reactions by a method involving measuring the volume of a gas produced and a method involving a change in colour or turbidity.
5 Reversible reactions	1. A reversible reaction occurs when the products of the reaction can react to produce the original reactants. 2. If a reversible reaction is exothermic in one direction, it is endothermic in the opposite direction. The same amount of energy is transferred in each case. 3. When a reversible reaction occurs in a closed system equilibrium is reached when the forward and reverse reactions occur at exactly the same rate	1. Describe what a reversible reaction is 2. Give 2 examples of reversible reactions 3. Explain what happens when you change the conditions of a reversible reaction

Year 11 Chemistry Foundation Leadership Guide: Rates of Resources

Week/ Topic	I will need to know:	So that I can:
6 Crude Oil	1. Crude oil is a finite resource found in rocks. Crude oil is the remains of an ancient biomass consisting mainly of plankton that was buried in mud. 2. Crude oil is a mixture of a very large number of compounds. Most of the compounds in crude oil are hydrocarbon. Most of the hydrocarbons in crude oil are hydrocarbons called alkanes. The general formula for the homologous series of alkanes is CnH2n+2 3. The first four members of the alkanes are methane, ethane, propane and butane.	1. Identify substances as alkanes 2. Name the first 4 alkanes
7 Properties of hydrocarbons	1. Some properties of hydrocarbons depend on the size of their molecules, including boiling point, viscosity and flammability. These properties influence how hydrocarbons are used as fuels. 2. The combustion of hydrocarbon fuels releases energy. During combustion, the carbon and hydrogen in the fuels are oxidised. The complete combustion of a hydrocarbon produces carbon dioxide and water	1. Describe how boiling point, viscosity and flammability change with increasing molecular size 2. write balanced equations for the 3. complete combustion of hydrocarbons
8 Fractional Distillation	1. The many hydrocarbons in crude oil may be separated into fractions, each of which contains molecules with a similar number of carbon atoms, by fractional distillation. 2. The fractions can be processed to produce fuels and feedstock for the petrochemical industry. Many of the fuels on which we depend for our modern lifestyle, such as petrol, diesel oil, kerosene, heavy fuel oil and liquefied petroleum gases, are produced from crude oil. 3. Many useful materials on which modern life depends are produced by the petrochemical industry, such as solvents, lubricants, polymers, detergents. 4. The vast array of natural and synthetic carbon compounds occur due to the ability of carbon atoms to form families of similar compounds	1. Describe the process of fractional distaillation 2. Explain how fractional distillation works in terms of evaporation and condensation
9 Cracking	1. Hydrocarbons can be broken down (cracked) to produce smaller, more useful molecules. 2. Cracking can be done by various methods including catalytic cracking and steam cracking. 3. The products of cracking include alkanes and another type of hydrocarbon called alkenes. Alkenes are more reactive than alkanes and react with bromine water, which is used as a test for alkenes. 4. There is a high demand for fuels with small molecules and so some of the products of cracking are useful as fuels. Alkenes are used to produce polymers and as starting materials for the production of many other chemicals.	1. Describe in general terms the conditions used for catalytic cracking and steam cracking. 2. Recall the colour change when bromine water reacts with an alkene. 3. Give examples to illustrate the usefulness of cracking. 4. Explain how modern life depends on the uses of hydrocarbons.
10/11	**Leader's Prep:** To prepare for your upcoming assessment, you should self quiz on knowledge from weeks 1-10; revising for assessments keeps you on the path to leadership. Work hard and show your best! You can use flashcards, the 5 a day questions and your leaders guide to help you.	**Final Assessment:** Your assessment will be made up of 10 multiple choice questions, 15 1-mark knowledge questions and 25 marks of application questions.

Year 11 Chemistry Triple Leadership Guide: Rates of Resources

Careers linked to these topics can include things like being a chef, laboratory scientist, a dietician because they require knowledge of the rates of reactions.

Week	I will need to know:	So that I can:
1 Rate of reaction	1. Observations that can be made when a chemical rection occurs are colour change, temperature change, precipitation, effervescence, change of mass. 2. The rate of a chemical reaction can be found by measuring the quantity of a reactant used or the quantity of product formed overtime. 3. The quantity of reactant or product can be measured by the mass in grams or by a volume in cm^3. 4. The units of rate of reaction may be given as g/s or cm^3/s.	1. Calculate the mean rate of a reaction from given information about the quantity of a reactant used or the quantity of a product formed and the time taken 2. Draw, and interpret, graphs showing the quantity of product formed or quantity of reactant used up against time 3. Draw tangents to the curves on these graphs and use the slope of the tangent as a measure of the rate of reaction
2 Collision theory	1. Collision theory states that chemical reactions can occur only when reacting particles collide with each other and with sufficient energy. The minimum amount of energy that particles must have to react is called the activation energy. 2. Factors which affect the rates of chemical reactions include: the concentrations of reactants in solution, the pressure of reacting gases, the surface area of solid reactants, the temperature and the presence of catalysts. 3. Increasing the concentration of reactants in solution, the pressure of reacting gases, and the surface area of solid reactants increases the frequency of collisions and so increases the rate of reaction.	1. Recall how changing these factors affects the rate of chemical reactions 2. Predict and explain the effects of changes in the size of pieces of a reacting solid in terms of surface area to volume ratio use simple ideas about proportionality when using collision theory to explain the effect of a factor on the rate of a reaction.
3 Factors affecting rate	1. Increasing the temperature increases the frequency of collisions and makes the collisions more energetic, and so increases the rate of reaction. 2. Catalysts change the rate of chemical reactions but are not used up during the reaction. Different reactions need different catalysts. 3. Enzymes act as catalysts in biological systems. 4. Catalysts increase the rate of reaction by providing a different pathway for the reaction that has a lower activation energy.	1. Predict and explain using collision theory the effects of changing conditions of concentration, pressure and temperature on the rate of a reaction 2. Identify catalysts in reactions from their effect on the rate of reaction and because they are not included in the chemical equation for the reaction. 3. Explain catalytic action in terms of activation energy.
4 Required practical	1. Increasing the concentration of reactants in solution, the pressure of reacting gases, and the surface area of solid reactants increases the frequency of collisions and so increases the rate of reaction.	**Mid point Assessment** 1. Investigate how changes in concentration affect the rates of reactions by a method involving measuring the volume of a gas produced and a method involving a change in colour or turbidity.
5 Reversible reactions	1. A reversible reaction occurs when the products of the reaction can react to produce the original reactants. 2. If a reversible reaction is exothermic in one direction, it is endothermic in the opposite direction. The same amount of energy is transferred in each case. 3. When a reversible reaction occurs in a closed system equilibrium is reached when the forward and reverse reactions occur at exactly the same rate	1. Describe what a reversible reaction is 2. Give 2 examples of reversible reactions 3. Explain what happens when you change the conditions of a reversible reaction

Year 11 Chemistry Triple Leadership Guide: Rates of Resources

Week/ Topic	I will need to know:	So that I can:
5 **Equilibrium Concentration** **HIGHER ONLY**	1. The relative amounts of all the reactants and products at equilibrium depend on the conditions of the reaction. If a system is at equilibrium and a change is made to any of the conditions, then the system responds to counteract the change. The effects of changing conditions on a system at equilibrium can be predicted using Le Chatelier's Principle. 2. If the concentration of one of the reactants or products is changed, the system is no longer at equilibrium and the concentrations of all the substances will change until equilibrium is reached again. If the concentration of a reactant is increased, more products will be formed until equilibrium is reached again. If the concentration of a product is decreased, more reactants will react until equilibrium is reached again.	1. Make predictions about the effect of changes on systems at equilibrium when given appropriate information. 2. interpret appropriate given data to predict the effect of a change in concentration of a reactant or product on given reactions at equilibrium.
6 **Equilibrium Temperature and Pressure** **HIGHER ONLY**	1. If the temperature of a system at equilibrium is increased: 1. the relative amount of products at equilibrium increases for an endothermic reaction 2. the relative amount of products at equilibrium decreases for an exothermic reaction. 2. If the temperature of a system at equilibrium is decreased: 1. the relative amount of products at equilibrium decreases for an endothermic reaction 2. the relative amount of products at equilibrium increases for an exothermic reaction.	1. Interpret appropriate given data to predict the effect of a change in temperature on given reactions at equilibrium. 2. Interpret appropriate given data to predict the effect of pressure changes on given reactions at equilibrium.
6 **Crude Oil**	1. Crude oil is a finite resource found in rocks. Crude oil is the remains of an ancient biomass consisting mainly of plankton that was buried in mud. 2. Crude oil is a mixture of a very large number of compounds. Most of the compounds in crude oil are hydrocarbon. Most of the hydrocarbons in crude oil are hydrocarbons called alkanes. The general formula for the homologous series of alkanes is CnH2n+2 3. The first four members of the alkanes are methane, ethane, propane and butane.	1. Identify substances as alkanes 2. Name the first 4 alkanes
7 **Properties of hydrocarbons**	1. Some properties of hydrocarbons depend on the size of their molecules, including boiling point, viscosity and flammability. These properties influence how hydrocarbons are used as fuels. 2. The combustion of hydrocarbon fuels releases energy. During combustion, the carbon and hydrogen in the fuels are oxidised. The complete combustion of a hydrocarbon produces carbon dioxide and water	1. Describe how boiling point, viscosity and flammability change with increasing molecular size 2. write balanced equations for the 3. complete combustion of hydrocarbons
10/11	**Leader's Prep:** To prepare for your upcoming assessment, you should self quiz on knowledge from weeks 1-10; revising for assessments keeps you on the path to leadership. Work hard and show your best! You can use flashcards, the 5 a day questions and your leaders guide to help you.	**Final Assessment:** Your assessment will be made up of 10 multiple choice questions, 15 1-mark knowledge questions and 25 marks of application questions.

Year 11 Construction Leadership Guide

Types of buildings and structures and Renewable Technologies.

Week/ Topic	I will need to know…	So that I can….
1 Different Buildings	**The features and characteristics of different forms of low-rise buildings such as residential buildings.**	1. Understand that they are used as places of habitation and what requirements are needed. 2. Explain the different choices of buildings available. 3. Describe the different styles and materials used in their construction.
2 Different Buildings	**The features and characteristics of different forms of commercial buildings.**	1. Understand that they are used to provide services or retail products to customers. 2. How they are usually adapted to fulfil the purpose of the business. 3. Explain why they are often located in retail centres, in or out of towns and city centres.
3 Different Buildings	**The features and characteristics of different forms of Industrial and Agricultural buildings .** **Practical lesson- Stop end brickwork, keeping the end plumb.**	1. Explain why they are usually larger buildings, adapted to specific functions. 2. Understand that they are often used for storing, processing, engineering or manufacturing materials. 3. Explain why they may be part of a new development, such as in a modern industrial park, or a refurbished older building or site.
4 Different Buildings	**The features and characteristics of different forms of Community, Religious, and Recreational buildings.** **Practical lesson- Stop end brickwork, keeping the end plumb.**	1. Explain why they are usually located in a convenient location for the community using the building. 2. Explain why they may be modern or older buildings, sometimes converted to enable a change of use. 3. Understand that they often include elaborate architecture, with towers or domes, and may therefore be one of the most expressive and influential structures in the local built environment.
5 Renewable Technologies and materials	**How energy may be generated or collected from renewable sources, as opposed to generated by burning finite resources such as fossil fuels.** **Practical lesson- brick corner, levelled and plumb.**	1. Explain how Solar Panels can be a benefit to homeowners. 2. Understand how Wind Turbines harness the power of the wind to generate electricity. 3. Explain the difference of pole mounted and building mounted Wind Turbines.

Year 11 Construction Leadership Guide

Week/ Topic	I will need to know…	So that I can….
6	**How Heat pumps transfer heat into a building.** **Practical lesson- brick corner, levelled and plumb continued.**	1. Understand how heat pumps use pipes that are buried underground to transfer heat from the ground into the building. 2. Explain how air force heat pumps, transfers heat from the air outside of a building into the building. 3. Explain how heat transfers from a source of water outside of a building into the building.
7	**How we can harvest rainwater.** **Practical lesson- brick corner built in pairs and using a gauge rod.**	1. Explain the definition of Rainwater Harvesting. 2. Understand how Grey water can be re-used. 3. Know how the tide can drive a turbine to create electricity.
8 Building structures and forms	**What Cellular construction is.** **Practical lesson- brick and a half pier, levelled, plumbed and to gauge.**	1. Understand how load bearing walls provide the main vertical supports and lateral stability for floors. 2. Explain how external wall panels provide stability. 3. Understand how prefabricated modular construction may be used.
9 Building structures and forms	**What Rectangular frame construction is.** **Practical lesson- Racked back wall with pier.**	1. Understand why a lightweight timber-frame is a common structure used in the construction of contemporary housing. 2. See the advantages of using steel and reinforced concrete frames in larger structures. 3. Understand why contemporary commercial framed buildings have replaced traditional external walls with the use of metal and glass screens, or curtain walls, as exterior cladding.
10 Building structures and forms	**What Portal frame construction is.** **Practical lesson- Racked back wall with pier continued.**	1. Identify the beams or rafters that are supported at either end by columns 2. Explain how columns are secured to pad foundations. 3. Explain the advantages of installing a Portal frame building.
11	**Leader's Prep:** To prepare for your upcoming assessment, you should self quiz on knowledge from weeks 1-10. Revising for assessments keeps you on the path to leadership. Work hard and show your best!	**Final Assessment:** Written assessment and practical bricklaying task.

Year 11 Performing Arts – Dance Leadership Guide

Careers linked to these topics can include things like being a dancer, actor or a teacher because

Week/ Topic	I will need to know…	So that I can….
1	**Why** specific actions and targets are needed for improvement through considered and pertinent consideration.	1. Provide an in-depth review of the development of skills and techniques using target setting to drive forward further development.
2	**Why** my personal review and reflection on my own skills and progress are just as important as hearing that from others.	1. Build on my critical appreciation skills, even when it relates to my own performance.
3	**How to respond to a brief through discussion and practical exploration activities** Discussion of key requirements and parameters for the workshop performance - Target Audience - Performance Space - Planning & Managing resources - Style of Work	1. Confidently deliver and communicate ideas through your role in the performance. 2. Demonstrate an assured ability to communicate with others.
4	**How to respond to a brief through discussion and practical exploration activities** - A theme - An issue - A prop - Time & Place - Existing Repertoire	1. Confidently deliver and communicate ideas through your role in the performance. 2. Demonstrate an assured ability to communicate with others.
5	**How to respond to a brief through discussion and practical exploration activities** - Structure of work - Style & Genre of the work - Skills required - Creative Intentions	1. Apply performance skills and techniques fluently according to the role in performance.

Year 11 Performing Arts – Dance Leadership Guide

Week/ Topic	I will need to know…	So that I can….
6	**How to respond to a brief through discussion and practical exploration activities** Working effectively as a member of the group - Making an individual contribution - Responding to the contributions of others EXAM PAPER RELEASE	1. Demonstrate an effective ability to planning and managing resources in response to the requirements of the brief.
7	**What appropriate skills and techniques to select in response to a brief** Demonstrate how to select and develop skills and techniques that are needed to realise the creative ideas in response to a brief - Skills and Techniques of the individual performer - Skills and Techniques of the performers as a group - The style and/or genre of the work being created	1. Demonstrate effective consideration of ideas relating to the requirements of the brief. 2. Demonstrate an effective contribution od individual ideas within a group
8	**What appropriate skills and techniques to select in response to a brief** Demonstrate how to select and develop skills and techniques that are needed to realise the creative ideas in response to a brief - The influence of selected practitioners - Appropriate skills for the target audience	1. Demonstrate effective consideration of ideas relating to the requirements of the brief. 2. Effectively explore ideas and use of influences in response to the brief
9	**What appropriate skills and techniques to select in response to a brief** Demonstrate how to select and develop skills and techniques that are needed to realise the creative ideas in response to a brief - Taking part in the rehearsal process, including individual preparation and group rehearsals. **Leader's Prep: Activity 1 – Research Log**	1. Demonstrate an effective contribution od individual ideas within a group
10	**Activity 1 (Ideas Log) – Written Component (800 words)** - The concept and style of performance - Your selection of target audience - The resources needed (during developing and performance) - Your contribution to the exploration and development of ideas - How the work of others has influenced your ideas.	1. Demonstrate effective consideration of ideas relating to the requirements of the brief. 2. Effectively explore ideas and use of influences in response to the brief
11	**How to contribute to a workshop <u>group</u> performance** Skills and Techniques *Demonstrating effective use of performance skills and effective realisation of techniques in a workshop performance to the target audience.*	1. Demonstrate effective consideration of ideas relating to the requirements of the brief.

Year 11 Performing Arts – Drama Leadership Guide

Careers linked to these topics can include things like being an actor, director, advertising Because I will be exploring presentation skills

Week/ Topic	I will need to know…	So that I can….
1	Understand the requirements of the assignment brief for Unit 2, Developing Skills & Techniques for Live Performance How to use vocal skills (Intonation, Projection, Resonance to develop performance)	Ensure I meet the assessment decisions relevant to all Learning Aims.
2	**What *interpretive*** skills are relevant to my own practice as a professional performer, and explain why they are beneficial to the final performance How to use movement skills (gesture, mannerism, posture to develop character	Apply it to my practical ability, and comment on the improvements over time.
3	**How *stylistic*** *skills* can effectively be applied throughout the rehearsal process How explorative strategies (marking the moment, split stage) can develop devised work	Perform with a confident and disciplined approach in workshop settings when learning professional repertoire.
4	**When** the relevant ***performance*** *skills are applicable to a performance, and whether these differ throughout sections*	Effectively meet the requirements of the performance piece from the creators' perspective.
5	**Why** a target audience is imperative, especially when performing professional repertoire.	Ensure I am communicating the meaning and intentions clearly, linking to the theme.

Year 11 Performing Arts – Drama Leadership Guide

Week/ Topic	I will need to know…	So that I can….
6	**When** throughout the piece I demonstrate a confidence skills set, and make reference to these through a written commentary.	Recognise my own development over time, using specific examples to highlight this further.
7	**How** to use feedback in a constructive manner in order to better my performance.	Make improvements over time, performing to my highest standard.
8	**Why** my personal review and reflection on my own skills and progress are just as important as hearing that from others.	Build on my critical appreciation skills, even when it relates to my own performance.
9 10	**Leader's Prep: Final Performance** **Component 2, Developing Skills & Techniques for LIVE PERFORMANCE** (24 marks) **What** I am performing in order to showcase the final performance for a live audience.	*Effectively demonstrate technical performance skills during performance.* *Effectively use performance skills to express stylistic qualities of the repertoire during performance.* *Apply interpretive skills during performance confidently and with insight relating to the theme.*
11	**Why** specific actions and targets are needed for improvement through considered and pertinent consideration.	*Provide an in-depth review of the development of skills and techniques using target setting to drive forward further development.*

Year 11 Graphics Leadership Guide: *Component 1*

Careers linked to this topic can include things like Graphic Designer, Illustrator, Product Developer, Advertising Illustrator

Week/ Topic	I will need to:	So that I can:
1 DESIGN BRIEF	Create a **design brief** which gives an opportunity to outline the aims, objectives and milestone of my graphic design project. The design brief ensures that important design issues such as target market and specifications are considered and questioned before the designer starts work. Decide which of the 3 routes I would like to take with my project (editorial illustration, album cover, movie poster)	Collect inspirational images relating to my project to gain a clear idea of context Write a detailed brief for my project so I understand what is required from my outcome
2 MIND MAPPING	Create a mind map to help plan my project in a hierarchical manner Consider: 1. **Aesthetics** 2. Function 3. Market considerations	Plan my project and establish key ideas
3 ANALYSIS OF EXISTING PRODUCTS	Create a vivid description and discussion of my **observations** from existing graphic design work of my chosen route, of a design piece or work of art including its appearance, medium and underlying concepts, and existing artists. It is the process of breaking down a graphic design product into smaller parts or forms to gain a better understanding of what you are hoping to communicate (established in Design Brief)	Create an in depth analysis about 3 existing graphic design examples that suit my theme
4 ARTIST RESEARCH	Study the work of different artists to get ideas for my own work. Choose artists and artworks that relate to my practical work and desired **style**, perhaps through similar subject matter, theme or style. https://www.illustrationx.com/uk Complete a critical analysis of artworks will make sure you have a good understanding of the work and can help you develop your own creativity. Create a research page	Make an informed choice in selecting an artist who is relevant to my design brief, to study their work to inform my own choices about my outcome

Year 11 Graphics Leadership Guide: *Component 1*

Careers linked to this topic can include things like Graphic Designer, Illustrator, Product Developer, Advertising Illustrator

Week/ Topic	I will need to:	So that I can:
5 MARKET RESEARCH	Establish a **target market** and what information I will need from them to ensure a successful finished product. Who will be interested in my product?/what is the target market Their opinions on existing products? What would make them interested in buying your product?	Create a survey to send out to my target market to gain key information about what will make my final product successful for the consumer
6 INFORGRAPHIC	Use Canva (or a similar programme) to collate and present the information I gathered from my **market research**	Present the information I have gathered in an aesthetic, clear and interesting way
7 PHOTOGRAPHER RESEARCH	**Research** a photographer who has a style relevant to your design brief and the style of work you want to produce Create a research page	Establish strong references from existing artists to ensure I am creating a strong framework for my own final design
8 PRIMARY PHOTOS	Plan a photoshoot for your primary photos so that they bring your design and vision to life	Create a set of primary photos to use in my work
9 DESIGN IDEAS	Consider all the research you have done so far: aesthetic/function/market, include the findings from your market research and be sure to **annotate** to explain.	Create the first 3 designs based on my Design Brief
10 DCP	Have prepared, created and annotated 3 initial design ideas, decided which is the most successful and created a miniature complete mock-up of this design	Create an enlarged version of the design for my DCP piece

Year 11 BTEC Health & Social Care Leaders Guide: BTEC Level 1/Level 2 Tech Award: Health & Social Care: **CYCLE ONE**

Careers linked to Health and Social Care require good communication, empathy, and an ability to form relationships. Roles include nursing, paramedics, ambulance services, Primary, nursery and preschool teachers; dental nurses or hygienists; Social care workers.
C**omponent 2, continuing preparing for the PSA 2: 6-hour assessment completed in December 2023**

Week/ Topic	I will need to know…	So that I can….
1 **Social Care**	1. What social services are available for children and young people and older adults and how they are allocated. 2. What is the role of a Social Worker. What are their skills and attributes	1. Match case study individuals to the correct service they need. 2. Explain the roles and responsibilities of social care workers. What is needed to include empathy and confidentiality. Describe the skills including the 6Cs, and attributes ior qualities that are desired. 3. Describe why children need foster care or residential care; why youths need a youth worker.
2 **Social servic es**	1. The services that are needed by adults or children with specific needs (learning disabilities, sensory impairments, long-term health issues) 2. What is the difference between residential care, respite care, domiciliary care	1. Wite about the difficulties people face if they have a sensory need or a special learning need. 2. Describe what takes place in different types of care – like who would use respite care and who does it support.
3 **Barriers to care**	1. What is a barrier and how does it impact accessing services needed. 2. There are the six Barrier types : Physical - getting in and out of service. 3. Social and Cultural- adverts of clinics, well woman / man.	1. To explain that some problems are obstacles and some are barriers to accessing the service. 2. To recognise and describe problems the barrier faces. 3. Physical like walking sticks / a double buggy –door frame too narrow. 4. Analyse which type of barrier has resulted in a problem accessing a health or social care service.
4 **Barriers to Care**	1. Geographical Barrier – distance from service travel links; disabled; 2. Financial – cost of travel; lack of money or benefits. 3. Language barrier – English not the first language or speech impairment 4. Sensory – hearing and visual difficulties	1. To describe the problem with no nus route, 2. To describe how not having the money means not bothering to access the service needed. 3. To describe not using a service because you could not read the poster advertising it. 4. Top describe the danger of not being able to read a label on pills or hear / see cars coming on the road.
5 **Skills & attributes**	1. What is the differences between a skill and an attribute. **2. Skills:** problem solving, observation, dealing with difficult situations, organisation. **3. Attribute**s: empathy, patience, trustworthiness, honesty	1. Explain that a skill is learnt and an attribute is naturally from within. 2. Explain that skills have to be learnt and can be assessed and are required. 3. To assess the attributes that are from your personality – describe kindness, patience, smiley, strict.

Year 11 BTEC Health & Social Care Leaders Guide: BTEC Level 1/Level 2 Tech Award: Health & Social Care: **CYCLE ONE**
PSA 26-hour controlled assessment in December 2023. In February you will start to learn for the external examination in May 2024.

Week/ Topic	I will need to know…	So that I can….
6 Care Values	1. That care and health workers follow care values – they are there to provide excellent levels of care. 2. They include anti-discrimination and safeguarding. 3. Dignity, respect and	1. Complete part two of the PSA and can write explaining how different staff will demonstrate these values in the work they do when looking after the person in the case study
7 6Cs skills	**1.** **C**are – receiving correct and consistent care, **C**ompassion – empathy, respect and dignity, **C**ompetence – skills and knowledge to deliver effective care, **C**ommunication – involving individuals and/or carers and listening, **C**ourage – doing the right thing and speaking up when concerns arise, **C**ommitment – to improve care and experience for individuals.	1. Write appropriately about the key qualities and skills needed by all Care Workers to ensure a consistently fair treatment. 2. To be able to analyse when qualities are shown and the knowledge of how to use them in every day life as a Care Worker, for a person in a case stud and to identify the impact positive or negative om the individual.
8 & 9 6-hour assessment	1. All aspects from the learning we have done so far and to prepare exercise books with highlights and marker post its so that this resource can be used effectively in the PSA assessment. The books are allowed in but no photocopied text book pages. 2. These hours of assessments take place in exam conditions.	***Complete the tasks for the PSA – 6 hours :*** 1. Task 1 – health care services meet the needs of indivuals 2. Task 2 – social care services meet the needs of individuals 3. Task 3 barriers to accessing the services needed. Explaining what and why they are barriers.
10 6-hour assessment	1. To continue to prep for the PSA2 assessment. 2. To fill any gaps in the learning or books, so that they can be used in your PSA assessment.	1. Continue the tasks: 2. Task 4 – how the skills and attributes are needed for patients 3. Task 5 - How the care values and 6Cs can be used effectively to help patients overcome obstacles 4. Task 5B – specific tasks and actions that care workers use and how they will help an individual overcome their difficulties.
11 DCP week New Unit	1. There will be no DCP 2 as students will have just completed the assessment. 2. Introduce the new unit – to understand the exam. 3. It is an external exam in May and the learning is on health and well-being and uses parts of PSA1 and PSA2 work.	1. Start to learn and consolidate the knowledge needed for the external examination. A 2 hour exam in May.
12 Exam practice	1. This is super teach week and you will be learning all the skills that are needed when sitting the external examination	1. Understand what each question means – the commands – so that there is no muddle on what is required. 2. Practice exam style questions on the work we have done

Year 11 History Leadership Guide

Careers linked to these topics can include things like being a lawyer because they need to communicate their ideas and arguments.

Week/ Topic	I will need to know…	So that I can….
1	1. That the Hungarian Uprising was put done by Khrushchev. 2. That a refugee crisis occurred in Berlin during the 1950s, as thousands of Germans were leaving Soviet controlled Germany though West Berlin. 3. The Refugee crisis ended, but relations between the USA and the USSR deteriorated. The Soviet Union were criticised because they were forcing their citizens to stay.	1. Write a narrative account of the HUngarian Crisis. 2. Write a narrative account analysing the key event of the Berlin Crisis in the years 1958-61. 3. Explain the importance of the building of the Berlin Wall for relations between the Soviet Union and the USA.
2	1. Fidel Castro led a revolution which replaced the Government in Cuba with a pro-Soviet one. 2. The Cuban Missiles Crisis was a standoff between the USSR and the USA over the installation of nuclear missiles in Cuba. 3. Dubcek introduced Reforms in Czechoslovakia. These were known as the 'Prague Spring'.	1. Explain two consequences of the Cuban Missile Crisis. 2. Write a narrative account of the Cuban Missile Crisis. 3. Write a narrative account analysis the key features of the Prague Spring.
3	1. A Consequence of the Prague Spring was the Brezhnev Doctrine. 2. The Détente was a period of relative peace between the USSR and the USA because neither power wanted to start a nuclear war. 3. As both sides did not want a nuclear war, a series of talks (meetings) were set up to discuss nuclear capability in each country.	1. Explain two consequences of the Soviet invasion of Czechoslovakia. 2. Explain the importance of the Détente for relations between the Soviet Union and the USA. 3. Explain two consequences of the Détente.
4	1. In 1979, the USSR invaded Afghanistan to stop Muslim fundamentalists from taking over the country. 2. The Soviet invasion of Afghanistan is often seen as the start of the 'Second Cold War'. 3. Gorbachev became the leader of the Soviet Union in 1985.	1. Explain two consequences of the Soviet invasion of Afghanistan. 2. Explain the importance of the appointment of Ronald Raegan as President of the USA for relations between the Soviet Union and the USA.
5	1. Once Gorbachev renounced the Brezhnev Doctrine, Soviet satellite states were free to choose how to be governed. 2. Between May 1989 and December 1990, all satellite states held free elections on their future. 3. In December 1991, the Soviet Union came to an end, and dissolved into 15 nations.	1. Write a narrative account of the collapse of the Soviet Union. 2. Explain the importance of the appointment of Gorbachev as leader of the Soviet Union on relations between the Soviet Union and the USA.

Year 10 History Leadership Guide: *USA in Conflict – Civil rights*

Careers linked can include data and logistics analyst as I will be developing my analysis and evaluative skills.

Week/ Topic	I will need to know:	So that I can:
6	1. That there was discrimination in the Northern States and segregation in the Southern States. 2. The work of civil rights groups such as NAACP and CORE 3. That there was opposition to civil rigts groups such as the KKK.	1. Use source documents to describe what was happening at the time.
7	1. That the first civil rights case was Brown v Board of Education in Topeka. 2. The significance of Brown v Board of Education. 3. That events at Little Rock High affected the Federal Government, and led to changes in legislation.	1. Explain the importance of Brown v the Board of Education. 2. Analyse sources which show the Little Rock Nine.
8	1. That the Bus Boycott in Montgomery, Alabama had a significant effect on the civil Rights movement. 2. That the Montgomery Bus Boycott introduced Martin Luthur King Jr as a leader of the Civil Rights Movement. 3. That legislation changed with the 1957 Civil Rights Act.	1. Describe the causes o of the Montgomery Bus Boycott 2. Explain the importance of Bus Boycott.
9	1. That the Greensboro Sit-in challenged the segregation of restaurants. 2. That the Freedom Rides challenged segregation in the transport sector. 3. That the James Meridth case challenged segregation in the University on Mississipppi.	1. Explain the significance of the Greensboro Sit-in. 2. Explain the significance of the Freedom rides.
10	1. That Campaign C was a planned attempt to generate publicity for the Civil Rights Movement. 2. That the Freedom Summer of 1961 attempted to highlight voting rights in the South. 3. That the Civil Rights was passed in 1964, followed by the Voting Rights Act in 1965	1. Explain the significance of Campaign C. 2. Explain the importance of the Civil Rights Act..
11	1. **Leader's Prep:** To prepare for your upcoming assessment, you should self quiz on knowledge from weeks 1-10. Revising for assessments keeps you on the path to leadership. Work hard and show your best.	1. **Final Assessment: Cold War GCSE Paper.**

Year 11 Spanish Leadership Guide: Cycle 1

"Ciudades" (Towns) enables students to discuss the area where they live and their home town (e.g. High Wycombe). They will look at the pros and cons of their local area and what it was like in the past. Students will also look at shopping, specifically types of shops, clothes, dealing with problems when shopping and making arrangements to go out. **Careers** linked to this learning include things like being an overseas urban planner, a translator project manager or an interpreter.

Week / Topic	I will need to know the following lines from my parallel text (PT) and the substitution words in bold.			So that I can:
1 Donde vivo yo	Vivo en **High Wycombe, un pueblo histórico** pero **feo**. **High Wycombe** está situado en **el sureste** de **Inglaterra** cerca de **Londres**, que es la capital del país. En el pasado **High Wycombe** era más **tranquilo** y había **menos coches**, pero hoy en día **todo el mundo va en coche**.	1 2 3	(I) live in **High Wycombe**, **a town historic** but **ugly**. **High Wycombe** is situated in **the South-East** of **England** near of **London**, that is the capital of-the country. In the past **High Wycombe** was more **quiet** and there (were) **less cars**, but now-a-days **everyone travels by car**.	1. Talk about places in town and understand directions. 2. Recognise and use prepositions to say where things are. 3. Recognise and use the Imperfect Tense of irregular verbs. 4. Ask and answer the questions: Where do you live?/ What was your city like in the past?
2 Mi casa	Vivo con mi familia en **una casa adosada** en **las afueras**, pero **mis abuelos** viven en **una mansión** en **el campo. ¡Qué suerte!** Diría que nuestra casa es **bastante grande**. Tenemos **un jardín grande, un garaje, una cocina moderna y cuatro dormitorios.** Me gusta mi casa ya que es **cómoda**, sin embargo, en el futuro me gustaría vivir en **España** porque es más **interesante**.	4 5 6	(I) live with my family in **a house semi-detached** in **the outskirts**, but **my grandparents** (they) live in **a mansion** in **the countryside. How lucky!** (I would) say that our house is **quite big**. (We) have **a garden big, a garage, a kitchen modern and four bedrooms.** Me like my house be-cause it's **comfortable**, how-ever, in the future me (would) like to-live in **Spain** because it's more **interesting**.	1. Say what your house is like. 2. Recognise and use quantifiers. 3. Express your opinion and wishes using the conditional "would" + say and "would" + like + infinitive. 4. Ask and answer the question: What is your house like?
3 Mi ciudad ¿Cómo es tu zona?	En mi opinión me chifla mi barrio porque tiene muchos servicios para los habitantes. En el centro del pueblo hay **un centro comercial, una biblioteca, un cine, una bolera y muchos restaurantes y tiendas.** Desafortunadamente no hay **polideportivo**. ¡Qué lástima! ¡Me chifla **hacer deportes**! También hay atracciones turísticas, por ejemplo, se puede visitar **el museo** o se puede ir **a las cuevas de Hellfire.**	7 8 9	In my opinion me love my neighbourhood because (it) has many services for the residents. In the centre of-the town there (is) **a shopping centre, a library, a cinema, a bowling-alley and many restaurants and shops.** Unfortunately no there (is) sport-centre. What (a) shame! Me love to-do sports! Also, there (are) attractions tourists, for example, you can visit **the museum** or you can go to **the caves of Hellfire.**	1. Describe your neighborhood. 2. Recognise and use the verb "*hay*". 3. Ask and answer the question: What is your neighborhood like?
4 Los pros y los contras de la ciudad	Lo mejor de vivir en el pueblo es que **es fácil de desplazarse** y **hay tantas diversiones**, por otro lado, lo peor es que **hay mucha basura** y **es demasiado ruidoso.** Mi ciudad ideal estaría situada **en la costa** donde habría **una playa** y **vistas maravillosas**.	10 11 12	The best (thing) of living in a town is that **it's so easy to get around** and there (are) **so many things-to-do**, on the other hand The worst (thing) is that there (is) much rubbish and **it's too noisy**. Mi city ideal (would) be situated **in the coast** where there (would be) **a beach** and **views amazing.**	1. Describe positive and negative features of your town. 2. Talk about your ideal town using the conditional tense. 3. Ask and answer the questions: What is the best and the worst part about your town?/ What would your ideal town be like?
	Mid-point assessment: Write 90 words (Foundation) or 150 words (Higher) about your town, your house, your neighbourhood, positives and negatives features about your town			

Year 11 Spanish Leadership Guide: Cycle 1

Week/ Topic	I will need to know the following lines from my parallel text (PT) and the substitution words in bold.			So that I can:
5 De compras/ Destino Arequipa	La semana pasada, fui a **Londres** y **compré mucha ropa nueva porque prefiero ir de compras en el centro**. También, decidí ir a un restaurante y comí **bistec con patatas fritas** – la comida estaba **deliciosa**.	**13**	The last week, (I) went to **London** and **(I) bought much clothes new because (I) prefer to go shopping in the centre**. Also, (I) decided to-go to a restaurant and (I) ate **steak with chips** – the food was **delicious**.	1. Talk about shops and shopping for souvenirs. 2. Describe a visit in the past using the Preterite and the Imperfect Tense. 3. Ask and answer the question: What did you buy last week?
6 ¿Qué haremos mañana?	Necesité ir de compras porque la semana próxima será el cumpleaños de **mi mejor amigo**. Si **hace calor, tendrá una barbacoa** y **comeremos y beberemos** por toda la noche. ¡Será guay!	**14**	(I) needed to go shopping because the next week (will) be the birthday of **my best friend**. If **it's warm**, **(he will) have a BBQ** and **(we will) eat and (we will) drink** for all the night. (It will) be great!	1. Plan what to do using the Future Tense. 2. Say what to do using the conditional "if" depending on the weather. 3. Ask and answer the question: What will you do tomorrow?
7 ¿Qué comes?	Normalmente desayuno **cereales** o **tostadas** y bebo **té** por la mañana. Durante la semana almuerzo a **la una** en mi insti. Suelo comer **un bocadillo con queso** y **patatas de bolsa** en el comedor. Siempre ceno con mi familia a **las seis** en casa. **A veces** como **carne** y **verduras** pero **nunca** como un postre.	**1** **2** **3** **4** **5** **6**	Normally (I eat) breakfast **cereal** and **toast** And (I) drink **tea** in the morning. During the week (I eat) lunch at **the 1 o'clock** in the school. (I) usually eat **a sandwich with cheese** and **crisps of bag** in the canteen. Always (I eat) dinner with my family at **the 6** at home. Some times (I) eat **meat** and **vegetables** but **Never** (I) eat a dessert.	
8 Sabores del mundo	Me gusta **la pizza** y me encantan **las patatas fritas** porque **son sabrosas**. Además mi comida favorita **son las fajitas**. ¿Has probado **las fajitas**? Es un plato típico de **México** y consisten en **pollo, pimientos y cebolla en una tortilla**. No me gusta nada **la fruta** y me repugnan **las verduras** porque en mi opinión son **insípidas**. ¡Qué asco!	**7** **8** **9** **10** **11**	Me like **the pizza** and me love **the potatoes frieds** because (they) **are tasty.** Moreover my food favourite (they) are the fajitas. Have (you) tried **the fajitas**? It's a dish typical of **Mexico** and consists in **chicken, peppers and onion in a tortilla.** No me like at-all **the fruit** me (they) disgust **the vegetables** because in my opinion (they) are **blands**. How disgusting!	
9/ 10	**Leader's Prep: Mock Exams** To prepare for your upcoming assessment, you should revise all PT, the GCSE KO, your class notes, the Speaking booklet, past papers, and marked writings; revising for assessments keeps you on the path to leadership. Work hard and show your best!			<u>Practise a full paper mock exam.</u> Exam board AQA. In class: Paper 1 (Listening) 40 mins, paper 2 (Speaking) 20 mins with invigilator. In exam conditions: paper 3 (Reading) 1 h and Paper 4 (Writing) 1h 15 mins.
11	**Feedback week:** To complete a feedback worksheet, analyse common mistakes and practise good writing examples.			Address misunderstandings and improve our language skills.

Year 11F Maths Leadership Guide

Careers linked to these topics can include things like being an Architect. Being an Architect is a role in which geometry, algebra, and trigonometry are crucial. Architects apply these skills to plan their blueprints or initial sketch designs. They are problem solvers, with a high attention to detail and aspire to push boundaries with great pride in their work. They lead from the front when managing constructions teams and their margin for error is tiny.

Week/ Topic	Topic Covered	I will be able to:	Sparx Code So that I can:
	Assessment	There will be a unit assessment at the end of every topic outlined below	
1	**Ratio (Part 1)**	1. Simplify two or three-part ratios 2. Write two-part ratios in the form 1:n or n:1 3. Write ratios as fractions and as percentages 4. Divide quantities into two or more parts in a given ratio	U687 U577 U176
2	**Ratio (Part 2)**	1. Use ratios to find one quantity when the other is known 2. Combine ratios 3. Solve questions where the ratio changes 4. Solve ratio questions where only a difference between two parts is given	U865 U921 U676
3	**Proportion**	1. Use a ratio to convert between measures and currencies 2. Scale ingredients for recipes up or down 3. Solve 'tagging' problems which estimate population sizes 4. Use a proportionality constant, 'k', to solve direct proportion problems algebraically	U610 U640 U407
4	**Surds**	1. Memorise the first 15 square numbers 2. Simplify surds by listing factors and selecting the highest square factor 3. Add, subtract, multiply and divide surds 4. Expand single and double brackets which include surds	U872 U499 U338 U633
5	**Pythagoras' Theorem**	1. Memorise and use Pythagoras' theorem to find any side of a right-angled triangle 2. Use Pythagoras theorem to solve questions in context 3. Justify if a triangle is right-angled by using Pythagoras' theorem 4. Calculate the length of a line segment AB given a pair of points (point A and B)	U385
6	**Trigonometry in right-angled triangles**	1. Understand, use and recall the trigonometric ratios sine, cosine and tan, and apply them to find lengths and angles in 2D and 3D configurations 2. Apply the trigonometric ratios to solve 2D problems in context 3. Know the exact values of sin θ & cos θ for θ = 0°, 30°, 45°, 60° & 90°; and tan θ for θ = 0°, 30°, 45° & 60°	U605 U283 U545 U627

Year 11F Maths Leadership Guide

Week/ Topic	Topic Covered	I will be able to:	Sparx Code
7	**Solving Simultaneous Equations**	1. Find the exact solutions of two linear simultaneous equations in two unknowns using elimination 2. Find the exact solutions of two linear simultaneous equations in two unknowns using elimination and requiring rearrangement 3. Set up and solve simultaneous equations modelling a real life situation and know how to interpret the solution in the context of the problem	U760 U137
8	**Standard Form**	1. Convert large and small numbers between ordinary and standard form 2. Add, subtract, multiply and divide numbers in standard form 3. Order numbers in standard form 4. Use a calculator to perform calculations using standard form	U330 U161 U534 U264 U290
9	**Estimation**	1. Estimate calculations by rounding to 1 significant figure 2. Understand what leads to over or under estimates for the real answer 3. Estimate calculations when a square or cubed root is involved in an estimation	U731 U965 U225
10	**Accuracy & Bounds**	1. Use inequality notation to specify an error interval due to truncation or rounding 2. Calculate the upper and lower bounds of numbers given to varying degrees of accuracy 3. Calculate the upper and lower bounds of an expression or calculation involving the four operations and real-life situations 4. Round calculations to a suitable degree of accuracy by considering what the upper and lower bound both round to	U657 U587 U108 U301
11	**Leader's Prep:** To prepare for your upcoming assessment, you should complete the Sparx quizzes as outlined per topic	**Final Assessment: November Mock** Full set of 3 x past papers Each paper is 80 marks, there will be 1 non-calculator and 2 calculator papers Each paper is 1hour 30 minutes	

Year 11H Maths Leadership Guide

Careers linked to these topics can include things like being a Mechanical Engineer. Mechanical engineering combines creativity, knowledge and analytical tools to transform ideas into reality. Mechanical engineers require high-level problem-solving skills and creativity. Mechanical engineering can be applied in a wide range of careers, for example, aviation, manufacturing, and construction

Week/ Topic	Topic Covered	I will be able to:	Sparx Code So that I can:
	Assessment	There will be a Mock examination at the end of cycle 1	
1	**Ratio**	1. Simplify two or three-part ratios including writing two-part ratios in the form 1:n or n:1 2. Divide quantities into two or more parts in a given ratio and use ratios to find one quantity when the other is known. 3. Combine ratios and solve questions where the ratio changes 4. Apply ratio to real-life scenarios such as 'tagging', recipes and currency conversion	U687 U595 U921 U865 U610
2	**Probability**	1. Estimate the probability of an event occurring using fractions, decimals and percentages 2. Calculate the probability of single and multiple events occurring. 3. Calculate probabilities from frequency trees and Venn diagrams 4. Calculate probability using algebra and frequency trees	U580 U683 U476 U280 U558 U729
3	**Surds**	1. Simplify surds by listing factors and selecting the highest square factor 2. Add, subtract, multiply and divide surds 3. Expand single and double brackets which include surds 4. Rationalise the denominator of fractions with both single surds and multiple-terms on the denominators	U338 U633 U872 U499 U707 U281
4	**Pythagoras' Theorem**	1. Memorise and use Pythagoras' theorem to find any side of a right-angled triangle 2. Use Pythagoras theorem to solve questions in context 3. Justify if a triangle is right-angled by using Pythagoras' theorem 4. Calculate the length of a line segment AB given a pair of points (point A and B)	U385
5	**Trigonometry in right-angled triangles**	1. Understand, use and recall the trigonometric ratios sine, cosine and tan, and apply them to find lengths and angles in 2D and 3D configurations 2. Know the exact values of sin θ & cos θ for θ = 0°, 30°, 45°, 60° & 90°; and tan θ for θ = 0°, 30°, 45° & 60° 3. Solve problems using SOH CAH TOA and bearings	U545 U283 U627 U164
6	**Further Trigonometry: Non-right-angled triangles**	1. Memorise and use 'Area = 1/2 ab sin C' to calculate the sides or angles of any triangle 2. Memorise and use the sine and cosine rules to find missing angles and sides in any triangle 3. Find areas of triangles within sectors 4. Use Pythagoras' theorem and trig relationships to solve problems in 3D configurations	U592 U952 U591 U170 U541

Year 11H Maths Leadership Guide

Week/ Topic	Topic Covered	I will be able to:	Sparx Code
7	**Solving Simultaneous Equations**	1. Find the exact solutions of two linear simultaneous equations in two unknowns using elimination 2. Set up and solve simultaneous equations modelling a real life situation and know how to interpret the solution in the context of the problem 3. Solve sets of linear and quadratic simultaneous equations graphically 4. Find the exact solutions of linear and quadratic simultaneous equations	U760 U137 U875 U547
8	**Similarity & Congruence**	1. Calculate the missing length in similar shapes 2. Calculate the area and volume of similar shapes given the lengths 3. Calculate the area given the volume of similar shapes 4. Determine that two shapes are congruent	U578 U110 U866
9	**Co-ordinate Geometry**	1. Calculate the length and gradient of a line segment 2. Determine the equation of a straight line given the gradient and a point 3. Determine the equation of parallel and perpendicular lines 4. Determine the equation of a circle with a centre (0,0)	U933 U889 U477 U848 U377 U898 U567
10	**Vectors**	1. Interpret and construct vectors 2. Interpret and construct addition and subtraction of vectors 3. Define colinear points using vectors 4. Construct geometric proofs using vectors	U632 U903 U564 U660 U781
11	**Leader's Prep:** To prepare for your upcoming assessment, you should complete the Sparx quizzes as outlined per topic	**Final Assessment: November Mock** Full set of 3 x past papers Each paper is 80 marks, there will be 1 non-calculator and 2 calculator papers Each paper is 1hour 30 minutes	

Year 11H Maths Leadership Guide

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2	**Probability**	1. Estimate the probability of an event occurring using fractions, decimals and percentages 2. Calculate the probability of single and multiple events occurring. 3. Calculate probabilities from frequency trees and Venn diagrams 4. Calculate probability using algebra and frequency trees	U580 U683 U476 U280 U558 U729
3	**Surds**	1. Simplify surds by listing factors and selecting the highest square factor 2. Add, subtract, multiply and divide surds 3. Expand single and double brackets which include surds 4. Rationalise the denominator of fractions with both single surds and multiple-terms on the denominators	U338 U633 U872 U499 U707 U281
4	**Pythagoras' Theorem**	1. Memorise and use Pythagoras' theorem to find any side of a right-angled triangle 2. Use Pythagoras theorem to solve questions in context 3. Justify if a triangle is right-angled by using Pythagoras' theorem 4. Calculate the length of a line segment AB given a pair of points (point A and B)	U385
5	**Trigonometry in right-angled triangles**	1. Understand, use and recall the trigonometric ratios sine, cosine and tan, and apply them to find lengths and angles in 2D and 3D configurations 2. Know the exact values of sin θ & cos θ for θ = 0°, 30°, 45°, 60° & 90°; and tan θ for θ = 0°, 30°, 45° & 60° 3. Solve problems using SOH CAH TOA and bearings	U545 U283 U627 U164
6	**Further Trigonometry: Non-right-angled triangles**	1. Memorise and use 'Area = 1/2 ab sin C' to calculate the sides or angles of any triangle 2. Memorise and use the sine and cosine rules to find missing angles and sides in any triangle 3. Find areas of triangles within sectors 4. Use Pythagoras' theorem and trig relationships to solve problems in 3D configurations	U592 U952 U591 U170 U541

Year 11H Maths Leadership Guide

Week/ Topic	Topic Covered	I will be able to:	Sparx Code
7	**Solving Equations & Inequalities**	1. Solve linear equations involving brackets and fractions 2. Solve linear inequalities and represent their solutions on a number line 3. Solve quadratic equations by factorising, quadratic formula and completing the square 4. Solve quadratic inequalities	U870 U505 U759 U509 U960 U133
8	**Solving Simultaneous Equations**	1. Find the exact solutions of two linear simultaneous equations in two unknowns using elimination 2. Set up and solve simultaneous equations modelling a real life situation and know how to interpret the solution in the context of the problem 3. Solve sets of linear and quadratic simultaneous equations graphically 4. Find the exact solutions of linear and quadratic simultaneous equations	U760 U137 U875 U547
9	**Sequences**	1. Generate sequences, given the n^{th} term formula 2. Calculate the formula for the n^{th} term of a linear sequence 3. Calculate the n^{th} term of a quadratic sequence 4. Determine if a number is in a given sequence	U213 U498 U206
10	**Fractions, Decimals & Percentages**	1. Simplify equivalent fractions 2. Multiply, divide, add and subtract fractions including mixed numbers 3. Calculate percentage of an amount and percentage change 4. Perform calculations involving compound interest and depreciation	U176 U736 U773 U554 U332
11	**Leader's Prep:** To prepare for your upcoming assessment, you should complete the Sparx quizzes as outlined per topic	**Final Assessment: November Mock** Full set of 3 x past papers Each paper is 80 marks, there will be 1 non-calculator and 2 calculator papers Each paper is 1hour 30 minutes	