

Key Skill: Plan

You are now becoming a real expert in your subjects. Planning is a vital skill that you need in every aspect of learning, life and in the work place. If you don't plan, you won't succeed.

KEY QUESTION: Can you apply a range of planning skills?

Year 8

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
Science:	<p>Biology The Lungs and respiration The human lungs and gas exchange Investigate diffusion Aerobic and anaerobic respiration in cells</p>	<p>Biology Lifestyle and Health Types of drugs including nicotine, alcohol, caffeine and cannabis and their effect on the body Addiction</p>	<p>Biology Reproduction in plants and animals Male and female reproductive organs Puberty and menstruation and fertilisation and pregnancy</p>	<p>Biology Ecosystems Habitats, food webs, decomposers Interdependence between species, feeding relationships Pyramids of biomass and bioaccumulation</p>		
	<p>Chemistry The Periodic table History of the Periodic table and atoms Group 1 (alkali metals), 2 (Earth alkali metals), 7 (halogens) and 8 (noble gases) and transition</p>	<p>Chemistry Burning reactions Chemical reactions and equations Combustion, oxidation, acid rain Exothermic and endothermic reactions, catalysts</p>	<p>Chemistry Earth and atmosphere Earth structure and volcanoes Igneous, sedimentary and metamorphic rock Earth's atmosphere and the carbon cycle</p>			
	<p>Physics Forces and matter Gravity, weight on different planets, forces pairs Forces on a spring, elastic energy Moments (turning force)</p>	<p>Physics Forces and pressure Pressure on solids, pressure in liquids, gas pressure Pressure and the weather</p>	<p>Physics Waves and light Anatomy of a wave Light waves and reflection Infrared radiation, absorption and reflection Infrared radiation and the greenhouse effect</p>	<p>Physics Electricity and resistance Making batteries Explaining current and energy around a circuit Investigate resistance</p>	<p>Physics Energy Stores and transfers Energy stores and transfers Work done, gravitational, elastic and thermal energy Energy in fuels</p>	
	<p>Geography Earthquakes and Volcanoes - where they happen and minimising impacts</p>	<p>Geography Shaping the landscape - Glaciers, rivers, coasts</p>	<p>Geography Human impact on the environment - human populations, Earth's spheres, deforestation and climate change</p>			
Technology:	<p>Binary Bits and Bobs This unit explains how binary is used within computers and how data is represented. You will learn about the different sizes of data, how to convert from binary to denary, denary to binary and how images are stored. You will build on these skills during year 8 and 9 in preparation for your key stage 4 studies.</p>	<p>Image Manipulation using Photo PEA- During this unit, you will learn a range of photo editing techniques and how to use photo editing tools to manipulate, enhance and alter images.</p>	<p>Computational Thinking. In this unit you will become computational thinkers. Computational thinking allows us to take a complex problem, understand what the problem is and develop possible solutions. We can then present these solutions in a way that a computer, a human, or both, can understand. You will look at decomposition, pattern recognition, abstraction, and algorithms. These elements can be applied to music and musical practices.</p>	<p>Spreadsheets- In this unit students will further explore the many functions and uses of spreadsheets. This will build on the students knowledge from year 7 and will prepare them for their KS4 course in IT which has a coursework unit centered around data and spreadsheets.</p>	<p>Smart homes In this unit you will learn about user interfaces and how they can be used to create products that give us information. This unit prepares you for a more detailed piece of work at key stage 4. You will create an interface for a smart home, showing lots of different devices that can be used in different areas of the house. You will include information about cost, advantages and disadvantages.</p>	<p>Each unit of work is over 8 lessons.</p>
Engineering - DISC	<p>Upsidedown city- You will be designing and making paper buildings for an imaginary upside-down land using inspiration from the work of Rob Dunlavey and a variety of Architecture styles. You will explore different surface patterns and how these can be applied architecturally to enhance a design. You will explore how lighting is used architecturally - either from artificial or natural sources - to create exciting shapes and outlines. The finished work will be suspended from the ceiling to be viewed from underneath.</p>		<p>The Client Challenge - You will be given a design brief to create a stone sculpture for somewhere in the school grounds. You will need to consider materials, drawings, costings, health and safety and how you will display the finished piece. You will present drawings and a prototype of your design to the client midway through the project and then have to respond to their feedback and potentially redesign the work before producing a final design. You will learn how to handle stone, carving and shaping techniques and how to finish a piece to a high standard.</p>		<p>Submarine Squared- In the first half term you will be investigating submarines including how they float and sink, neutral buoyancy, propulsion and the materials used to create the submarine. You will consider everything you have learnt to design your own 1-person submarine to explore Plymouth Sound. In the second half term you will be working on a special project from the National Marine Park to invent a sensor landscape to collect data from around plymouth sound and feed it back to a digital application for biologists and school pupils to access.</p>	
Art	<p>Creepy Crawlies - What is mark-making and how can you create a series of varied marks? Develop your observational drawing skills & increase your artist awareness.</p>	<p>Creepy Crawlies - Develop and strengthen your ability to control wet, dry, mixed media & collage skills.</p>	<p>Fishtastic - What and where can we draw inspiration from? Aquarium visit to inform and develop observational drawing skills & gytaku fish printing.</p>	<p>Fishtastic - Demonstrate and explore using dry media & tonal shading skills.</p>	<p>Graffiti Game Character - How does making digital art compare to making physical art? Expand artist knowledge & explore creating characters and environments with digital design software.</p>	<p>Graffiti Game Character - Use a mix of digital design software and physical materials to showcase your creative character creations/making skills.</p>
	<p>End of Unit Assessment: Students will be assessed regular verbal teacher feedback on how to improve. Students will self assess their work throughout and at the end of the unit. A final summative teacher assessment will take place at the end of unit - this is all recorded in their sketchbooks.</p>					
Maths	<p>Proportional Reasoning We begin Year 8 with an examination of the ideas surrounding ratio. We introduce notation and use a variety of contexts to solve problems. We consider scale factors, scale drawing and solve problems involving currencies. We complete the four rules of fractions with multiplication and division.</p>	<p>Representation We introduce ideas surrounding straight line graphs. These are analysed in real-life contexts and in a more abstract manner considering the algebraic links. We consider data analysis in some detail here. Correlation plays a major role in statistics and this is covered in depth. We examine two-way tables before another visit to probability, building on work from Year 7.</p>	<p>Algebraic Techniques Building on earlier work, we learn to use mathematical language precisely. We learn to manipulate more complex algebraic expressions and form more complicated equations. We consider inequalities in different contexts. Building on work from Year 7, we take a deeper look at sequences and indices.</p>	<p>Developing Number It's time to revisit fractions, decimals and percentages, developing our reasoning and solving more complex problems. We learn about Standard Form and its uses to the scientific community. Some of this work will be completed without a calculator. Indeed, we look to develop further our mental strategies through rounding, metric conversion and considering the order of operations.</p>	<p>Developing Geometry We review the Year 7 work on angles and their associated rules leading to challenging problems involving interior and exterior angles. We investigate more complicated 2-D shapes and calculate their areas in real-life contexts. We learn to estimate with significant figures before a revisit to Year 6 to build on our knowledge of symmetry.</p>	<p>Reasoning with Data In this final term of Year 8 we develop questionnaires, collect data, draw graphs and charts and investigate the process of testing hypotheses. We develop our understanding of averages by considering grouped data, classes and comparing distributions. Assessments have occurred within each Unit and at the end of each term. Students take a final assessment during this period.</p>

English:	Heroes' - Heroic Letters - Students will explore three powerful letters from the 'the golden age of letter writing'. They will explore: Siegfried Sassoon's letter refusing to return to the trenches in WW1; Ben Tillet's letter to the board of trade after the sinking of the Titanic and Oscar Wilde's letters to his lover, Lord Alfred Douglas. Students will explore the form of letter writing, and the social context behind each letter. Students will analyse the way the letter writers each use language and structure to communicate meaning to their reader.	Heroes' - Dickens - Exploration of the big themes in Dicken's work including: poverty; social inequality and injustice; the terror of the workhouses; the corruption of the Victorian justice system; family; and crime. These issues are explored through the lens of Dickens' own experience and how this shaped his writing. Students will understand the harrowing lives endured by the Victorian poor and explore Dickens' own experience, beliefs and work to improve conditions for the most vulnerable in society.	Other Cultures' - Transactional Writing - Concentrating on a theme of 'other cultures', students will explore a range of transactional texts encompassing newspaper and magazine articles, speech transcripts and letters. Students will look at how the diverse range of writers inform and persuade the reader through their choice of language and structure and the implied meaning this creates for the readers. Students will look for ICDAFORREST techniques in action, as well as other relevant linguistic devices that can apply to both fiction and non-fiction texts.	Other Cultures' - Of Mice and Men - Exploration of powerful themes including dreams, loneliness, discrimination, prejudice, racism and misogyny and the impact this can have upon individuals; social inequality; gender roles; and disability. Exploration of the context of the characters' experience including exploration of society's perceptions and attitudes towards individuals less fortunate during the context of the Great Depression.	From the Front Line' - Conflict Poetry - Students will explore non-fiction texts alongside a cluster of poems that explore conflict of some kind. Students will explore the big ideas and context behind the following poems: 1. Dulce et Decorum est 2. Marnet Wood 3. Manhunt 4. The Soldier. Students will explore the social, cultural and/or moral conflicts that sit behind each poem and understand how conflict has shaped meaning in each work.	From the Front Line - Shakespeare's Villains - Exploration of the themes, characters and context of Shakespeare's most ill-fated and well-known villains and antagonists. Students will explore and understand Shakespeare's portrayal of betrayal; honour; family loyalty; generational divide; revenge; death; and violence. They will also explore dramatic irony, and the context of a selection of plays and how Shakespeare employs a variety of effective methods to convey meaning to his audience.
History and Historical Geography	Industrial Revolution: In this unit you will be exploring the ideas brought forward in the Industrial Revolution and offer you the chance to judge on Historical significance in relation to inventions. We will use world maps to trace the trade routes across the British Empire and uncover how Britain became the 'workshop of the world'.	World War 1: In this unit you will be exploring the First World War with major events and issues raised by the war. This will give students a clear idea of both the wider context of the war and the realities of fighting. Students will use a range of sources including maps and aerial photographs to understand how extensive the trench network was and why it was such a huge obstacle.	Inter war years; In this unit you will be exploring the period between the wars, looking at extreme political ideologies, how they came to dominate many countries and how they were challenged/ or not.	World War 2; In this unit you will be exploring the Second World War with a particular focus on comparing the War with that of the First and identify why the two were so different. Tracking the key events of the war means that we will be able to identify the key turning points of the war.	Cold War; In this unit you will be exploring the concepts of the Cold War and how technology led to a complete change in how super powers dealt with each other. Using maps of Europe and the world students will identify which countries sided with the USSR or the USA as well as which maintain their neutrality.	Plymouth port and place; In this unit you will be exploring the History of the City of Plymouth. Students will use the skills they have learnt to analyze the changing face of the City as well as exploring the relationships between the different towns that grew into the City today. Students will use the chronological context of the last two years to help understand how these changes fit into the wider world context.
Philosophy and Ethics:	Buddhism: This unit aims to give students an introduction to Buddhism, many of whom have no direct access to the religion in their own community. Buddhism is a way of life not just a religion, and this unit will provide knowledge about aspects of Islam that you may face when in the workplace, whilst exploring the belief systems of others to enable you to develop your own.	Ultimate Questions: This unit aims to give you an opportunity to explore your beliefs, something that you rarely will get to do. It was teach you different theories and ideas about ultimate questions such as 'is there life after death?' and 'is there a soul?' This will allow students to explore their own morality (what you believe is right and wrong) whilst developing respect and understanding for those who have views that are different from their own.	Islam: This unit aims to give students an introduction to Islam, many of whom have no direct access to the religion in their own community. Islam is a way of life not just a religion, and this unit will provide knowledge about aspects of Islam that you may face when in the workplace, whilst exploring the belief systems of others to enable you to develop your own.	Ethics: This topic aims to deepen the students understanding of the idea of right and wrong, whilst introducing religious and technical language specific to Ethics and explore their own attitude to different issues. Students will engage in oracy and debate lessons, which will enable to practice the skill of listening and learning from others. This unit will help students understand that beliefs influence attitudes and behaviours, by exploring different points of view.	Ethics: This topic aims to deepen the students understanding of the idea of right and wrong, whilst introducing religious and technical language specific to Ethics and explore their own attitude to different issues. Students will engage in oracy and debate lessons, which will enable to practice the skill of listening and learning from others. This unit will help students understand that beliefs influence attitudes and behaviours, by exploring different points of view.	Ethics: This topic aims to deepen the students understanding of the idea of right and wrong, whilst introducing religious and technical language specific to Ethics and explore their own attitude to different issues. Students will engage in oracy and debate lessons, which will enable to practice the skill of listening and learning from others. This unit will help students understand that beliefs influence attitudes and behaviours, by exploring different points of view.
German:	Gute Reise - travel and leisure: make plans for your future holidays and activities using the future tense	Ich liebe Ferien - Holidays: describe what you did during the last holidays and learn to talk about the weather and how you travelled to your dream destination.	Bist du ein Medienfan? - Talking about media: Learn to describe current movies and film genres using extended sentences and opinions	Bist du ein Medienfan? Screentime: explore the healthy use of social media and learn to use modal verbs like must, should and could in German	Bleib gesund - healthy eating: discover typical German dishes and how the Germans keep themselves in good condition	Bleib gesund - staying active: discover and develop healthy lifestyles and write recipes for healthy and yummy food
Physical Education:	Concept: Physical health and wellbeing In this unit you will cover the importance of maintaining a good level of physical health and fitness. Investigate the immediate effects of exercise and how this impacts heart rate. You will look at the long term effects of exercise on your body and understand the importance of warming up and cooling down.	Badminton: This unit will introduce the basic rules and skills of competitive badminton. You will begin to explore techniques that will enable you to outwit an opponent such as the drop shot and the smash shot. You will also consider some tactical play principles such as shot placement and aiming to move your opponent. You will develop confidence in scoring and officiating games.	Table tennis: For table tennis, You will build upon fundamental skills and knowledge of the rules from previous learning. This will allow them to effectively play competitive table tennis and link to other netball sports. This unit will also include attacking and defensive tactical strategies.	Gymnastics: This will be the first unit of work in gymnastics and you will be focussing on core body strength and investigating counter tension and partner balances. You will work out how to get in and out of these balances and put together to form a sequence.	Athletics: In this unit you will build on your learning from year 7, including the techniques of specific athletic events such as long jump. There will be a further emphasis on analysing and refining the specific technical skills to improve your performance and therefore increase your throwing/jumping distance or decrease your track times. Athletics is a common and well-known sporting discipline that utilises many of the fundamental physical skills such as running and jumping. Your improved technical understanding will be reinforced with competitive activities in each lesson, as this also reflects the nature of athletic events in the real-world.	Health & Fitness: In this unit, you will experience specific fitness based skills in a range of different contexts. You will further develop an ability to evaluate and assess core techniques to produce refined outcomes. You will investigate ways of warming up and understand the importance of health through completion of physical tasks.
	Tag-Rugby/Football: In tag- rugby/football, You will develop your fundamental skills and knowledge of the rules from previous learning. This will allow you to play competitive rugby/football, and these basic skills can also be applied to other invasion/team sports. This unit will include attacking and defensive tactical strategies as students need to work effectively as a team to outwit the opponent.	Concept: Social health and wellbeing: You will understand what is meant by social health and recognise the difference between assertiveness, positiveness and aggressiveness. Students will understand the importance of communication and be able to demonstrate effective communication. Students will also understand what good social health looks like and how to respect one another.	Handball: Handball is a growing sport within the UK and is popular in other European countries. This unit of work develops students' fundamental skills, including throwing and catching as well as effective movement skills. This unit of work will share some similarities with other invasion sports, but also has unique technical and tactical characteristics that You will need to develop your understanding of.	Basketball: For basketball, You will build upon fundamental skills and knowledge of the rules from previous learning. This will allow them to effectively play competitive basketball and other invasion/team sports. This unit will also include attacking and defensive tactical strategies.	Striking & Fielding: You will develop the skills you learnt in year 7 refining skills including bowling, batting and fielding. You will look to embed these into competitive situations adding in more of a tactical awareness. An additional summer striking and fielding sport will continue to develop students with hand eye coordination.	Netball: In netball, You will develop your key skills from previous learning such as passing and dodging techniques to enable them to perform at maximum levels in isolated and in small-sided games. You will work in teams to plan an attacking and defensive strategy, as the unique positional rules of netball require this for effective play. In all game activities, you are encouraged to think about how to use core skills, strategies and tactics to outwit the opposition.
	Assessment: Throughout the academic year, you will be assessed in every unit of work that you are taught. In each unit of work, you will be assessed in each of the three strands. The assessment criteria will correlate and create an average based upon the level demonstrated over that unit of work. Knowledge: Knowledge, understanding, analysis, feedback, responsibility Character: Communication, leadership, respect, resilience, effort Skills: Physical ability, fitness levels, competition, technique, problem solving, tactics					

<p>PSHE:</p>	<p>Relationships This theme aims to give you the information you need to help you develop healthy, nurturing relationships. It should show you what a healthy relationship looks like, including what consent is and how to look after your sexual health. This will help you understand the positive effects that good relationships have on your mental wellbeing, identify when relationships are not right and how this can be managed.</p>	<p>Relationships and consent This theme aims to give you the information you need to help you develop healthy, nurturing relationships. It should show you what a healthy relationship looks like, including what consent is and how to look after your sexual health. This will help you understand the positive effects that good relationships have on your mental wellbeing, identify when relationships are not right and how this can be managed.</p>	<p>Relationships and consent continued Health and Wellbeing The health and wellbeing theme focuses on all aspects of health including sexual health and wellbeing, with the aim to gain an understanding of the link between mental and physical health, as well as providing you with the knowledge to make informed decisions on how to develop into healthy young person.</p>	<p>Health and Wellbeing The health and wellbeing theme focuses on all aspects of health including sexual health and wellbeing, with the aim to gain an understanding of the link between mental and physical health, as well as providing you with the knowledge to make informed decisions on how to develop into healthy young person.</p>	<p>Health and Wellbeing continued The health and wellbeing theme focuses on all aspects of health including sexual health and wellbeing, with the aim to gain an understanding of the link between mental and physical health, as well as providing you with the knowledge to make informed decisions on how to develop into healthy young person.</p>	<p>Living in the Wider World (prejudice and discrimination) This theme covers everything you need to be a well round young adult. It includes, economic well being, careers and enterprise education, as well as education for personal safety, including assessing and managing risk. This unit particular focusses on discrimination and prejudice.</p>
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