

ART

Year Group	Topic	Topics Summary
7	Half-term 1 Cartography Half-term 2 Working with the Masters	Exploring the formal elements of art Identifying and using Art History styles
8	Half-term 1 Cartography Half-term 2 Art in Architecture	Exploring the formal Elements of Art Identifying styles of architecture and adapting these to create own constructions
10	Half-term 1 Formal elements Half-term 2 Responding to a Btec unit	Skills boosters: small tasks centred around book making Half-term 2 Using skills learn in HT1 to develop a response to first BTEC unit
11	Half-term 1 Formal elements Half-term 2 Responding to a BTEC unit	Skills boosters: small tasks centred around responding to project tasks successfully Half-term 2 Using skills learn in HT1 to respond to a final BTEC unit
12	Half-term 1 Formal elements Half-term 2 Introduction to image manipulation	Skills boosters: small tasks centred around responding to project tasks successfully Half-term 2 Mastering digital and chemical image manipulation
13	Half-term 1 Photoshop skills booster Half-term 2 Personal investigation for final project	Half-term 1 Recap on Photoshop and mastering image manipulation half-term 2 Personal investigation self-led with teacher guidance

D.T

Year Group	Topic	Topic Summary
7	Charity Bangle	In this exciting project, the pupils carry out research, provide their own design ideas and manufacture a bangle for their chosen charity.
8	Corporate Identity Restaurant	Developing design skills, students work to re-brand a local restaurant. They must consider the corporate identity, how they will promote their new business and what they plan to do with the interior and exterior of the building
9	Introduction to Hospitality & Catering	Pupils are introduced to the business, safety legislation and catering requirements.
10 (FD)	Hospitality & Catering	Introduction to course requirements and the Hospitality and Catering industry.
10 (DT)	DT: Task Light	Students are to create a task light using influence from a designer/design movement
11 (FD)	Hospitality & Catering	Nea introduction and revisiting nutritional requirements.
11 (DT)	DT: NEA	Students are undertaking their NEA (non-exam assessment) this is a portfolio of work based around a contextual challenge.

ECONOMICS

Year Group	Topic	Topic Summary
10	Economic Foundations & How Markets Work	<p>Students will look at economic foundations such as the nature and purpose of economic activity, the factors of production and the importance of making choices.</p> <p>Students will also look at how resources are allocated using a market mechanism. The central aspect will be an investigation of how prices are determined. This introduces students to concepts such as supply and demand and intermarket relationships.</p>
12	The Operation of Markets & Market Failure	<p>Students will look at a selection of microeconomic models apply these to current problems and issues. These microeconomic models include demand and supply, the operation of the price mechanism and causes of market failure.</p>
13	Individual Economic Decision Making Production, costs & revenue Perfect competition, imperfectly competitive markets and monopoly	<p>Students will look at how economic agents act rationally and will be introduced to economic models that recognise that consumer and firms' behaviour is often governed by more complex influences. Students will explore the decisions made by firms and how the behaviour of firms can be affected by the structure and characteristics of the industry in which they operate.</p>

BUSINESS

Year Group	Topic	Topic Summary
10	Theme 1: Investigating small business	Theme 1 concentrates on the key business concepts, issues and skills involved in starting and running a small business. It provides a framework for students to explore core concepts through the lens of an entrepreneur setting up a business.
11	Theme 2: Building a business	Theme 2 examines how a business develops beyond the start-up phase. It focuses on the key business concepts, issues and decisions used to grow a business, with emphasis on aspects of marketing, operations, finance and human resources. Theme 2 also considers the impact of the wider world on the decisions a business makes as it grows.
12 & 13	Theme 3: Business decisions & strategy	In Theme 3 students look at how businesses identify opportunities and explore how businesses focus on developing a competitive advantage through interacting with customers. Students also develop an understanding of how businesses need to adapt their marketing to operate in a dynamic business environment. Theme 3 also considers people, exploring how businesses recruit, train, organise and motivate employees, as well as the role of enterprising individuals and leaders.

I.T

Year Group	Topic	Topic Summary
11 IT	BTEC IT Component 3	Effective Digital Working Practices
10 IT	BTEC IT Component 1	Exploring User Interface Design Principles and Project Planning Techniques
13 IT	Unit 3 Social Media	Learners explore how businesses use social media to promote their products and services
12 IT	Unit 5 Data Modelling	Students will design and implement a data model to meet client requirements.
13 BTEC Business	Unit 8 Recruitment	Students will be evaluating the recruitment and selection process of a large business
10 GCSE Business		

MATHS

Year Group	Topic	Topic Summary
7	Making Generalisations of the Number System	The first term of year 7 focusing on developing understanding of the axioms and structures of number that are fundamental to mathematics. This underpins understanding of the algebraic notation developed in this term and in subsequent years.
8	Equations, inequalities, and graphical representations	Y8 students develop their number work from Y7 into sequence spotting and broader generalisations with algebra, moving towards equations and other relationships. These are then represented pictorially through linear graphing.
9	Graphs and Proportion	Y9s explore the relationships that maths can help describe, and explain. Algebra is introduced to allow for better representation and applied proportion problems let students see mathematical applications in the real world, including with relation to standard form.
10	Advanced Number and applying algebra	Y10s revisit number theory and some students extend this into surds. Sequences allow us to pivot from number to algebra, and students then begin to advance their algebraic generalisations by considering quadratics and simultaneous equations.
11	Number and Algebra Revision	<p>Y11s revisit content seen in Y9 and Y10 to ensure exam-readiness. In the first half term they will consider algebra basics, difficult number applications (including fractions, negatives, percentages, etc), shape facts and indices.</p> <p>The second half term sees more conceptual thinking with graphs, ratio, proportion and geometry as pertains to 2D shapes.</p>

Year Group	Topic	Topic Summary
7	Striking and Fielding Athletics Football Netball	Working on throwing, catching, batting and fielding skills. Using athletics equipment safely. Building teamwork skills.
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TRANSDISCIPLINARY

Year Group	Topic	Topic Summary
7 Half-Term 1	Life, Love and Loss ATL: How can we as, year 7 students, understand what is essential to life?	All students will learn the fundamentals of analysing literature, looking at poems, stories and other forms of media, to find how human emotion is conveyed effectively - looking at the whole gamut of emotions from happiness to sadness and anger. Alongside this, they will learn the science behind people's lives - looking at the life cycle, chemical and physical reactions in the human body and around us - looking at the human body, circulatory system and the function of the brain.
7 Half-Term 2	The Curious Case of Dr Crypto	Students will join Cyberville's police department as they learn about binary, algorithms, encryption and how the internet works, then learn to code as they create a program to encode their own secret messages.
8 Half-Term 1	Food focused ATL How can we as business entrepreneurs, create a global restaurant of the future?	In a world where food insecurity is a global and local issue, students will learn about the origin of food sources around the world and understand the sustainability and ethical concerns of food production. Through surveying the local community, students will collaborate to create a menu that caters for different diets. Alongside this, students will understand the financial considerations of opening a restaurant, through creating budgets for their menus. At the end of the assignment, students will devise, plan and present their restaurant business proposal to an audience of local business owners.
8 Half-Term 2	Health focused ATL: How can we, as year 8 students, prevent the spread of the next pandemic?	Students will learn about the history of disease outbreaks in the UK to the modern day. They will map and develop a response to an outbreak, focusing on stopping the spread and promoting prevention.

WELL-BEING

Year	Topic	Topic Summary
7 PSHE	<p>Half-Term 1 - Mock Trial</p> <p>Half-Term 1 - Friendships and Bullying</p> <p>Half-Term 2 - Money and Risk</p>	<p>Students will be taking part in a mock trial for the day, they will learn about the role of the people in the courtroom and how a trial functions.</p> <p>Students will be learning about positive relationships and how to stay safe online.</p> <p>Students will be learning how to look after their money.</p>
8 PSHE	<p>Half-Term 1 - Mental Health</p> <p>Half-Term 2 - Scientific Debate Kits</p>	<p>Students will learn how to keep themselves emotionally healthy. .</p> <p>Students will take part in debates and learn skills to be an effective debater, debates will be based on scientific issues.</p>
9 PSHE	<p>Half-Term 1 - Health and Safety</p> <p>Half-Term 2 - First Aid</p>	<p>Students will be learning about how to keep mentally and physical healthy, as well as learn about food safety.</p> <p>Students will be taking part in learning the basics for first aid.</p>
10 Citizenship	<p>Half-Term 1 - Life in Modern Britain</p> <p>Half-Term 2 - International Organisations</p>	<p>Students will be learning about democracy and democratic values.</p> <p>Students will study how international organisations influence and effect the UK.</p>
11 Citizenship	<p>Half-Term 1 - Politics in the UK</p> <p>Half-Term 2 - Active Citizenship</p>	<p>Students will be learning how the political structures function in the UK.</p> <p>Students will be choosing a citizenship issue they have found interesting and researching the topic to see how they can work together to formulate a social action to influence the issue.</p>

12 Sociology	Half-Term 1 and Half-Term 2 - Sociology of Education	Students will be learning theory of education. They will be learning why some students do better than others and how society affects achievement.
12 Politics	Half-Term 1 & 2 - British Law	Students will be learning about the factors which influence political participation and the structure within the institutions of British Politics.
12 Law	Half-Term 1 - Nature of Law and English Legal System Half-Term 2 - Introduction to Criminal Law	Students will be learning how law is created, how different parts of the legal system work and will learn the essential elements of criminal law.
13 Sociology	Half - Term 1 and Half-Term 2 - Crime and Deviance	Students will be learning the theory of crime and deviance. Why some people are more likely to commit crime than others and how society affects this likelihood.
13 Politics	Half - Term 1 & 2 - Global Politics	Students will be learning about the structures of global politics and major theories that shape world affairs.
13 Law	Half - Term 1 - Criminal Law Offences Half - Term 2 - Law of Tort and Law of Contract	Students will be learning about the specific elements of various criminal offences. Students will be learning about the different Torts you can make a claim under another party under and how contract law operates.

Year	Topic	Topic Summary
7	Greek Mythology Collection	Greek mythology is the birthplace of storytelling. Many of the themes and characters from Greek Myths are found throughout literature and so this allows a useful introduction. Students will also be learning key skills of identifying language devices and structural techniques and exploring their effect.
8	A Monster Calls' Patrick Ness	This emotional novel helps students to come to terms with the effects of grief. Students learn how to structure and create their own narrative, along with language devices and structural techniques.
9	'Of Mice and Men' John Steinbeck.	This classic novel, set in the economic depression of 1930s America asks students to explore the impact that wider context can have on everyday people. The universal themes can be studied in any time and context and it asks us to explore compassion and ideas such as social conscience. Students will also further develop their language and structure analytical skills and develop longer critical responses in this unit.
10	'A Christmas Carol' – Charles Dickens	This key GCSE text contains many themes that are relevant today. It covers themes such as social injustice, forgiveness, family and transformation and shows that anyone can change. Students will complete a detailed textual study of this novel, exploring,

		<p>analysing and evaluating that language and structural devices in the novel that they acquired in previous years.</p> <p>All students are provided with a copy of the text to annotate and we ask that the cost of this (£1.50) is paid via the school Gateway.</p>
11	Poetry Anthology & Revision	<p>Students study the final text in their English Literature GCSE this term - a collection of 15 poems all linked by the theme of 'Relationships.' They will also revise 'Macbeth', 'A Christmas Carol' and 'An Inspector Calls' this term, as well as their Language paper as preparation for the Pre-Public Exams in November and for their final exams in May.</p>

Year Group	Topic	Topic Summary
7	<p>Half - Term 1</p> <ul style="list-style-type: none"> 'Me presento'-I present m -Greetings -Numbers 1-31 -Saying and understanding dates -Learning colours -Learning classroom items <p>Half-Term 2</p> <ul style="list-style-type: none"> 'Mi burbuja' -counting up to 100 -Saying if you have brothers or sisters -animals -describing hair and eyes as well as other facial features -personality traits 	<p>Pupils will gain an introduction to hispanic culture by getting to know the Spanish speaking world. Students will learn how to introduce themselves in Spanish and give basic personal information such as discussing birthdays and colour preferences.</p> <p>Students will broaden their vocabulary with basic introduction of present tense verbs. This will facilitate students able to write and speak in full sentences when describing their families, personalities and physical appearance.</p>
8	<p>Half - Term 1</p> <ul style="list-style-type: none"> 'En mi ciudad' - In my city -Talking about a town/city -Directions -Future plans <p>Half-Term 2</p> <ul style="list-style-type: none"> Mi insti' My school -School subjects -Describing teachers 	<p>Over this half term pupils will enrich their cultural understanding of the Spanish speaking world by exploring different traditions that take place in different Spanish speaking countries. They will gain a deeper grammatical understanding of communicating in the past, present and future tenses by discussing their local areas and future plans.</p> <p>Students will be able to make cultural comparisons between schools in the UK and Spain to better understand similarities and differences between customs. Students will be able to give detailed opinions about school subjects and describe their school environment.</p>
9	<p>Half - Term 1</p> <ul style="list-style-type: none"> 'Aqui mando yo' -Internet and social media -Film and music -Job and careers <p>Half-Term 2</p> <ul style="list-style-type: none"> Adict@s a la moda -Fashion -Shopping 	<p>Students will explore Spanish filmmaking and cinema as well as examine the role of the internet in daily life. They will learn to give balanced arguments about social media, films, music and TV. The importance of learning a language for future careers and employment is embedded throughout.</p> <p>Pupils will deepen their grammatical understanding of key concepts related, discussing topics of fashion. Opportunities for pupils to learn more about large Spanish companies and how they operate.</p>

<p>10</p>	<p>Half - Term 1</p> <p>Theme 1 Identity and Culture: Me, my family and friends - Talking about friends -Describing family relationships -Talking about relationships nowadays</p> <p>Half-Term 2</p> <p>Theme 1 Identity and Culture: - <i>Technology in everyday life -Free time</i></p>	<p>Students will discuss key changes in the role of the Spanish family over the last 100 years whilst discussing family relationships and friendships nowadays. This allows for key areas of social and professional communication in a variety of tenses and situations to be practiced.</p> <p>Students will be able to give more detailed opinions and balanced arguments about the role of social media in society. Lifestyle choices and the importance of sport and exercise are also explored whilst developing the use of more in depth grammar structures to add increased variety into written and spoken language.</p>
<p>11 Spanish</p>	<p>Half - Term 1</p> <p>Theme 3 Current and future studies and employment -Recap key skills/grammar -My studies -Life at school</p> <p>Half-Term 2</p> <p>Theme 3 Current and future studies and employment -Education post 16 -Jobs, careers and ambitions</p>	<p>The difference between education in the hispanic world and the UK will be revisited as pupils will gain a deeper understanding in how to add detail to discussions about their studies and schools and how to incorporate more complex language accurately. Students will revise using all four skills (speaking, listening, reading and writing)</p> <p>Students have the opportunity to explore and discuss choices for their future whilst debating the benefits of higher education versus the world of work. They will revise using a variety of tenses and grammatical structures to describe their ideal jobs and how to look for and apply for work.</p>

HISTORY

Year Group	Topic	Topic Summary
7	Historical Skills The Normans	This unit is an introduction and development of key historical skills that students will use in all of their future enquires in their secondary education. Students will investigate the Norman take-over of England and how they changed our nation forever while focusing on the skill of significance.
8	Revolutions The Industrial Revolution	This unit focuses on the causes and consequences of key political revolutions in history including the French and American revolutions. Students will use their source skills to investigate the years between 1750 -1900, when many new technological advances happened and changed we lived for good.
9	Changes in the 20 th Century The Suffragettes	This unit of study looks at the sweeping changes that have taken place in the 20 th century in Britain and how significant these changes have been in shaping our current society. Students will look into how women eventually won the vote and all the various tactics and opinions used at the time.
10	AQA GCSE Conflict and Tension: Interwar years 1919 - 1939	This unit of study develops students source and narrative skills while looking at the events that took the world from the Great War to the beginning of World War II.
11	AQA GCSE Germany, 1890 - 1945	This unit of study develops a student's interpretation and knowledge on the depth study of Germany before and during the World Wars.

12	AQA 1C The Tudors: England, 1485 - 1603	This unit further develops a student's interpretation and historical debate skills while looking at the sweeping changes made by the famous Tudor dynasty.
13	AQA component 3 – writing the NEA and 2Q The America Dream: reality and illusion, 1945 - 1980	In the NEA students will undertake a topic of historical debate of their own choosing while applying their interpretation and source skills. Students will investigate the topic of modern America – post WWII – while developing their source and debating skills.

GEOGRAPHY

Year Group	Topic	Topic Summary
7	Half-Term 1 G1.1 Geography the study of our world Half-Term 2 G1.2 Felltham and the population SEEP	To introduce students to the study of geography and familiarise students with basic geographical skills. To explore the immediate environment that we live in and how population changes can affect the social, economic, environmental and political environment in the area
8	Half-Term 1 G2.1 Coasts Happisburg Half-Term 2 G2.2 Rock cycle and weathering and erosion	To understand the physical processes that shape the coastal landscapes that includes, weathering and erosion. To understand the key processes in physical geography relating to geological timescales, rocks, weathering, erosion and landforms.
9	Half-Term 1 G16 Development gap + SEEP Half-Term 2 GIS	To understand the opportunities and challenges of living in cold environments and raise awareness of the possible impacts we have on these fragile environments. An introduction to Geographical Positioning Systems and their importance in the modern world.
10	Half-Term 1 G8 Cold environments Half-Term 2 G14 Urban Change in the UK - London G15 Urban Sustainability BedZED	To understand the opportunities and challenges of living in cold environments and raise awareness of the possible impacts we have on these fragile environments. To understand the importance of major UK cities and how they can sustainably develop in future.
11	Half-Term 1 G17 NEE Nigeria Half-Term 2 G19 Resources G20 Food	Some countries are experiencing rapid economic development which leads to significant social, environmental and cultural change. To understand the pressure that population has on the natural resources of the earth and to find sustainable solutions to manage resources effectively. This includes the sustainable production of food and how this will affect our future food security.

SCIENCE

The Rivers science curriculum is based on a 5-Year scheme of work designed to develop the core skills and embed ideas of the key concepts within Science.

Year Group	Topic	Topic Summary
7	<p>Half-Term 1 Investigative Skill Biology - Cells Chemistry - States of Matter Physics – Energy</p> <p>Half-Term 2 Biology - Organisation Chemistry - Atoms, Elements and Compounds Physics - Forces</p>	<p>Curriculum for science has been developed to bridge gaps in learning across feeder schools, and to secure the largest overarching ideas within science: Energy, Particle Theory and Cells.</p> <p>During the first half term, Year 7 students will also have an opportunity to engage with investigative and practical procedures safely, which will enable them to develop skills to conduct required practical assessments for the AQA exam board.</p> <p>Driving Questions: Biology: What are living things made of? Chemistry: Can we change the state of a substance? Physics: Where do we get our Energy from?</p> <p>Curriculum presents opportunities to embed and apply knowledge from Biology, and learn new core concepts and ideas within Chemistry and Physics through a range of practical investigations.</p>
8	<p>Biology - Respiration Chemistry - Metals and Non-metals Physics - Forces II</p> <p>Half-Term 2 Biology - Microorganisms Chemistry - Energetics</p>	<p>Students are required to build on their knowledge of organ systems and organisation to understand how the body coordinates itself to survive. (Cross-curricular links include PHSE and PE); Metals and non-metals is a key module that helps students understand the properties and interactions of different elements on the periodic table (HT 3 from Year 7) to support their study in GCSE. Forces II builds upon the first Forces module (HT 1, Year 7) and develops understanding of friction, drag and turning forces.</p> <p>Driving Questions Biology: How do lifestyle factors affect health? Chemistry: Do metals have a future? Physics: How does a crane work?</p> <p>This term provides opportunities to discover topics covered in GCSE through practicals and observations, but also to embed the key</p>

	Physics - Pressure	<p>concept within Physics (Energy) into Chemistry. This will later be utilised to aid the study of Photosynthesis (Bioenergetic processes)</p> <p>Driving Questions: Biology: Will we ever be free from disease? Chemistry: How can we make a hand warmer? Physics: How can a man sleep on a bed of nails?</p>
9	<p>Half-Term 1 B1 - Cells and Organisation C1 - Atoms, Bonding and Moles P1 – Energy</p> <p>Half-Term 2 B2 - Cell Division B7 - Non-communicable diseases C2 - The Periodic Table P2 - Energy Transfer by Heat</p>	<p>During the Autumn term, all Year 9 students begin the AQA GCSE Combined Science (9-1). The core concepts of science taught in KS3 are revisited to bridge the gap between Year 8 and 9.</p> <p>They are taught the structures of cells, how atoms and bonds on forms, and different types of energy and transfers, including important laws before building to elements in the periodic table and other life processes.</p> <p>Driving Questions: B1: Are cells the same? C1: How can we separate substances? P1: Can energy be conserved?</p> <p>Developing knowledge on cells and how they differentiate, the process of specialisation and cell division. This will link in with content taught in B7 where they are taught about the development of communicable and non-communicable diseases, such as Cancer. The Periodic Table covers the history and discovery of different elements used throughout their GCSE Chemistry journey. It will highlight key chemical interactions between different groups, expanding on bonding covered in C1 and looking closely at their different properties to be used in the next half term (C3 - specific types of bonding between elements).</p> <p>Driving Questions: B2/B7: Can we be free of disease? C2: Are all metals reactive? P2: How can we insulate our homes?</p>

<p>10</p>	<p>Half-Term 1 B8 + B9 - Photosynthesis + Respiration C7 - Energy changes P6 - Density Intervention: B1 Cells and Transport, C1 Atoms, Bonding and Moles, P1 Changes in Energy</p> <p>Half-Term 2 B10 - Human Nervous System C8 - Rates and Equilibrium P7 - Radioactivity Intervention: B2 Stem Cells, C2 Periodic Table, P2 Energy Transfers by Heat</p>	<p>Biology builds on all aspects of prior Biology topics covered in KS3 and Year 9, where students study the essential processes that enable life in plants and animals. This helps them gain a deeper understanding of topical issues that affect these students in real life such as modern agriculture, industry and wonders of nature. Studying Photosynthesis and Respiration develops students' understanding and general knowledge of how organisms work and interact; how these different diseases can affect these fundamental life processes. There will also be a chance to develop investigative and analytical skills that will be transferable later on in life.</p> <p>Looking at the Human Nervous System, which links to B1.4 Specialised animal cells but also to B8, where we study more advanced mechanisms of how organisms ensure survival and respond to changes.</p> <p>Driving Questions: B8/9: Why are plants producers? B10: How are we less prone to accidents? C7 in HT1 looks at Energy changes that occur during chemical reactions. This has cross-subject links with biology (photosynthesis and respiration B8, 9 studied this term) and physics (states of matter and density is developed - P6). Students will also look at how scientists have utilised various endothermic and exothermic reactions in industry and everyday life. We then look further into the nature of chemical reactions in C8, the law of conservation of mass, dynamic equilibrium, Haber process (linked to Photosynthesis) catalysts and their application in industry.</p> <p>Driving Questions: C7: Can you make a self-heating can? C8: How can we speed up reactions? P6 looks at the interactions of particles in a substance, and leads to basic knowledge covered in C7, C8, whilst building upon knowledge from P1, C1, and mathematical skills that are applied in Transport of substances in cells (B1, Year 9) and Ecology (Year 11).</p> <p>P7 - looks at Radioactive substances in detail which are briefly covered when learning about C1 and P6 (history of the atom). The topic expands on the key risk factor that leads to development and treatment of</p>
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		<p>cancer (B7), which has the probability to affect most students or someone they know within their lifetime.</p> <p>Driving Questions: P6: How do you choose a material for a radiator? P7: Can we know the age of a rock?</p>
<p>11</p>	<p>Half-Term 1</p> <p>B14 and B15 (Triple) Variation and Evolution, Genetics and Evolution B14 for (Combined) Genetics and Evolution; C12 (Triple) Chemical Analysis C12 (Combined) Earth Resources; P11, P12 Forces and Pressures; Wave Properties (Triple) P11, P12 - Waves, Electromagnetic Spectrum (Combined)</p> <p>Intervention: B17 Organising in Ecosystems; B18 Biodiversity in Ecosystems (Triple); B1-4 Cells and Transport, Cell Division, Organisation and Digestive System, Transport in Animals and Plants. (Combined) C1-4 Atoms, Bonding and Moles, Periodic Table, Structure and Bonding, Chemical Calculations; P1-3 Changes in Energy Stores, Energy Transfers by Heat, Energy Resources.</p>	<p><u>Biology</u></p> <p>B14/15 (T) and B14 (C) applies knowledge acquired from Year 9 of the functions and specialisations of cells, and how this affects the organelles present in cells due to their individual adaptations, and how the slow continual change over a long time leads on to the next topic of evolution (B15 Triple). This links in with Reproduction (B12 Combined) Dominant, Recessive inherited characteristics; this can also be used to highlight how antibiotic-resistant bacteria develop over time. This also leads to the knowledge of genetic variation and environmental variation (B13 Combined; B14 Triple)</p> <p>Driving Questions: B14 (C)/ B14/15 (T) How are some animals adapted to extreme conditions?</p> <p><u>Chemistry</u></p> <p>Triple students will look into the different methods in which chemists test for different substances as well as stimulating their curiosity for forensic sciences and ways to develop renewable energy sources. This module builds on C1 atomic structure where students look at chromatography techniques. This will also build on C9 and C11, whilst providing students essential knowledge to understanding the composition of our atmosphere and understanding the severity of how finite earth's resources are; these modules will enable triple students to develop a better understanding of topical issues and how scientists monitor climate change.</p> <p>Combined students will focus on the abundance of the Earth's resources and evaluate the impact of a materialistic and capitalist society where disposable goods are no longer sustainable, building in their knowledge of Crude oils in manufacturing of plastics, with the aim of instilling a sense of</p>

	<p>Half-Term 2</p> <p>B16, 17 (Triple) Adaptations, Interdependence and Competition, Organising an Ecosystem</p> <p>B15, B16 (Combined) - Adaptations, Interdependence and Competition, Organising an Ecosystem (Combined), Biodiversity and Ecosystem</p> <p>C13, 14, C15 (Triple) The Earth's Atmosphere, The Earth's Resources and Using the Earth's Resources. P13 + 14 (Triple) - Electromagnetic Waves; Light</p> <p>Intervention: B5-9 Communicable diseases, Preventing and treating diseases, Non-communicable diseases, Photosynthesis,</p>	<p>curiosity and motivation into the world of chemical engineering and the invention of new renewable and sustainable materials.</p> <p>C12 (T) How do forensic scientists use chromatography? C12 (c) Why is recycling so important?</p> <p><u>Physics</u></p> <p>Triple students will apply knowledge of surface area, density P6, energy resources, that could also be linked to Chemistry - earth resources and C12 (Combined) and the adaptations of aquatic and deep sea marine life.</p> <p>Combined students will study the final modules of Waves and the Electromagnetic spectrum. This links in with P1-3, Energy transfers, Energy transfers by heating, Energy resources, radiation (P7) and B7 Cancer treatments as well as additional uses for electromagnetism in everyday life.</p> <p>Driving Questions:</p> <p>P11 (T) What factors affect the functioning of a pressure jets? P11 (c) / P12 (T) What is the difference between mechanical waves and electromagnetic waves?</p> <p><u>Biology</u></p> <p>HT2 studies the survival and ecological relationships between organisms, the trophic levels of organisms building upon KS2-3 knowledge of food chains. This delves into biotic and abiotic factors contribute to the survival of an individual and its species. This links back to reproduction B12 (Combined)/b13 (Triple); B1.4/5 Specialisation of cells; B6 Preventing and treating disease.</p> <p>Driving Questions:</p> <p>What was the mechanism that Darwin based his theory on and how this fits into an ecosystem?</p> <p><u>Chemistry</u></p> <p>Triple students will look into this module which builds on C1 atomic structure where students look at chromatography</p>
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	<p>Respiration; C5-7 Chemical Changes, Electrolysis, Energy Changes, P4-7 Electrical Circuits, Electricity in the Home, Molecules and Matter, Radioactivity</p>	<p>techniques. This will also build on C9 and C11, whilst providing students essential knowledge to understanding the composition of our atmosphere and understanding the severity of how finite earth's resources are; these modules will enable triple students to develop a better understanding of topical issues and how scientists monitor climate change. They will also look into an extra module on polymers, alloys, and other man-made materials and their applications in industry such as car manufacturing, agriculture, etc. building on their knowledge of how manufacturing contributes to the pollution of the atmosphere, climate change and depletion of natural resources.</p> <p><u>Physics</u></p> <p>Triple students will look at the properties and the uses of the Electromagnetic spectrum, uses and hone in on the properties of light, linking to radiation (P7), changes in energy stores (P1-3) and P11 (Reflection and Refraction of waves); this also has cross-curricular links to triple biology where students study the structure of the eye and build an understanding of optics.</p> <p>Driving questions:</p> <p>P13 What is the difference between mechanical waves and electromagnetic waves?</p> <p>P14 How do glasses correct eyesight?</p>
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