



**Intent:**

The Year 11 Art, Craft, and Design curriculum offers a transformative artistic journey that fosters creative autonomy and a deep appreciation for art. Our goal is to empower students to embark on independent projects using prompts from past AQA Art exam papers, preparing them for the actual exam paper release in January. This process aligns with the four assessment objectives set by the exam board.

Students will enhance their observational drawing skills, learning to perceive and document their surroundings effectively. Critical annotations will accompany their drawings, promoting reflection and improving their ability to communicate ideas visually and verbally. The curriculum encourages exploration of established artists' influences, enabling students to analyse and respond to artistic traditions and contemporary voices, thus enriching their artistic vocabulary and contextual understanding.

Through experimentation with various media, students will expand their artistic horizons, learning to manipulate materials and understand their potential and limitations. This equips them with a versatile toolkit to express their creative vision. As they refine their ideas and develop outcomes, students will focus on transforming inspiration and experimentation into cohesive, engaging art pieces, mastering the journey from concept to final presentation.

**Assessment Objective 1 (AO1): Develop ideas through investigations, demonstrating critical understanding of sources.**

- Students are expected to gather and explore a wide range of sources of inspiration, such as direct observation, secondary research, and personal experiences.
- They should demonstrate a critical understanding of their chosen sources, analysing and evaluating their relevance to the project.
- This AO assesses the ability to generate ideas and develop concepts through comprehensive investigations and research.

**Assessment Objective 2 (AO2): Refine work by exploring ideas, selecting and experimenting with appropriate media, materials, techniques, and processes.**

- Students need to experiment with different media, materials, techniques, and processes relevant to their chosen theme or project.

- They should show evidence of refining and improving their work through experimentation, adapting their approaches to achieve desired outcomes.
- This AO assesses the ability to creatively manipulate materials and techniques to develop the artwork.

**Assessment Objective 3 (AO3): Record ideas, observations, and insights relevant to intentions, reflecting critically on work and progress.**

- Students are required to keep a sketchbook or portfolio that records their ideas, observations, and insights.
- They should demonstrate an ongoing process of reflection and critical analysis, evaluating their work's strengths and weaknesses.
- This AO evaluates the ability to maintain a consistent and reflective record of their artistic journey.

**Assessment Objective 4 (AO4): Present a personal and meaningful response that realises intentions and demonstrates understanding of visual language.**

- Students need to produce a final, personal, and meaningful response to their chosen project, demonstrating their understanding of the visual language and its effective use.
- The response should reflect their creative intentions and encompass the knowledge and skills gained throughout the project.
- This AO assesses the ability to produce a finished piece that communicates artistic intent effectively.

These four Assessment Objectives guide the evaluation of students' coursework and examinations in the AQA Art, Craft, and Design GCSE. They are designed to assess not only the final outcomes but also the entire creative process, from initial investigations to the presentation of a personal and meaningful response. The Year 11 curriculum is guided by these objectives, not as mere assessment requirements but as essential elements of artistic growth and expression. Our intention is to foster a love for art that extends beyond the classroom, to equip our students with the skills and perspectives necessary for artistic independence, and to prepare them for the challenges and opportunities that lie ahead on their artistic journeys. Through this curriculum, our students will not only create artworks of depth and meaning but also develop into artists capable of making significant contributions to the creative world.

**Why I study Art?**

*I study Art because:*

- It helps me find meaning in the world.
  - It helps me express my identity.
- It helps me explore culture and ideologies.

--

**Cultural capital/enrichment**

Completing the AQA Art, Craft, and Design GCSE provides Year 11 students with significant cultural capital, encompassing the knowledge, skills, and experiences gained through artistic education. This cultural capital aids students in navigating the art world, appreciating diverse perspectives, and supporting their personal and professional growth.

Through coursework, students explore various art forms, media, and techniques, enhancing their ability to understand and appreciate art across different cultures and time periods. They learn about the historical contexts of art movements and artists, enabling them to contextualise and interpret artworks while recognising the influences that shape them.

The curriculum promotes critical thinking and analysis of both their work and that of others, fostering a deeper understanding of the world. Exposure to diverse artistic styles broadens cultural awareness and appreciation for diversity. Independent art projects cultivate research and self-directed learning skills applicable to academic and lifelong pursuits.

Students also develop the ability to express artistic ideas, valuable across fields like visual communication and marketing. They create a portfolio of their work, which can support applications to art schools or further education in the arts. Additionally, showcasing their work in exhibitions enhances public speaking and presentation skills.

Through their study of art, students engage in cultural conversations, fostering a lifelong appreciation for the arts. By completing their GCSE, they gain artistic skills and cultural capital that enrich their personal and professional journeys, equipping them to meaningfully engage with the world of art and culture.

Half term	Topic	Key knowledge	Key skills I will learn in this topic	Assessment opportunities (Summative and formative) Key pieces
-----------	-------	---------------	---------------------------------------	---

AUTUMN

Artist influence, experimentation and development of ideas

Students are given the choice of which project they would like to begin at the end of year 10 based on a past AQA paper. They will produce work for this project up until January when they receive their live AQA exam paper. Students will produce a mind map and mood board, write a proposal, develop a plan, find their own artists, analyse their work and record from observation. Once they have primary images they will use these to develop ideas and take these forward to a final outcome. The majority of the work will be produced in a sketchbook. Written work and annotations will ensure all their thoughts and observations are recorded.

1. **Observational Drawing:** Developing the ability to create accurate and detailed observational drawings.
2. **Research Skills:** Learning to gather, analyse, and apply information from various sources.
3. **Critical Analysis:** Developing a critical eye to assess and interpret artworks and artistic concepts.
4. **Cultural Awareness:** Gaining an understanding of art history, cultural influences, and contemporary art movements.
5. **Ideation and Concept Development:** Generating and refining ideas for their creative projects.
6. **Annotation and Documentation:** Effectively recording thoughts, processes, and critical reflections in sketchbooks or portfolios.
7. **Media Handling:** Mastery of various art materials, techniques, and media.
8. **Technique Adaptation:** The ability to adapt techniques to achieve desired artistic outcomes.
9. **Mixed Media Exploration:** Experimenting with the combination of different media and materials.
10. **Sculptural Skills:** Developing skills in three-dimensional art, including working with different materials and tools.
11. **Printmaking Skills:** Proficiency in various printmaking techniques, such as etching, lino printing, or screen printing.
12. **Digital Art Proficiency:** Utilizing digital tools and software for artistic expression.
13. **Conceptual Thinking:** Cultivating the ability to translate ideas into meaningful and engaging artwork.
14. **Composition and Design:** Understanding principles of composition, layout, balance, and visual hierarchy.
15. **Conceptual Development:** Progressing from initial ideas to final, well-developed concepts.
16. **Artistic Problem-Solving:** Effectively addressing challenges and making creative decisions.
17. **Personal Voice:** Developing a distinctive artistic style and self-expression.

1. Artist 1 response A01
2. Development piece

Key writing pieces such as artist analysis will be marked for accuracy, complexity of thought and SPAG.

- |  |  |  |  |  |
|--|--|--|--|--|
|  |  |  | <ol style="list-style-type: none"><li>18. <b>Final Outcome Creation:</b> Producing refined and well-crafted final pieces of artwork.</li><li>19. <b>Presentation Skills:</b> Learning to present and display artwork effectively.</li><li>20. <b>Portfolio Development:</b> Building a comprehensive and cohesive portfolio that showcases their range and skills.</li><li>21. <b>Artistic Critique:</b> Providing constructive feedback and critique on their work and the work of peers.</li><li>22. <b>Self-Evaluation:</b> Reflecting on their own artistic growth, strengths, and areas for improvement.</li><li>23. <b>Response to External Influences:</b> Demonstrating how external influences, such as other artists or cultural contexts, have informed their work.</li></ol> |  |
|--|--|--|--|--|

These skills are integral to a comprehensive art education and are key to success in the AQA Art, Craft, and Design GCSE. They equip students not only with artistic proficiency but also with the ability to think critically, work independently, and engage with the world of art and design in a meaningful way.

SPRING

AQA set Exam paper

Students are given their exam project questions paper in January. This is independent and controlled assessment work. They need to work to their strengths to develop a full project covering all 4 Assessment objectives as listed in the curriculum intent. They will write a proposal, develop a plan, find their own artists, analyse their work and record from observation. Once they have primary images they will use these to develop ideas and take forward to a final outcome. The majority of the work will be produced in a sketchbook with the exception being the work completed in their 10 hour timed examination. Written work and annotations will ensure all their thoughts and observations are recorded.

7. **Observational Drawing:** Developing the ability to create accurate and detailed observational drawings.
8. **Research Skills:** Learning to gather, analyse, and apply information from various sources.
9. **Critical Analysis:** Developing a critical eye to assess and interpret artworks and artistic concepts.
10. **Cultural Awareness:** Gaining an understanding of art history, cultural influences, and contemporary art movements.
11. **Ideation and Concept Development:** Generating and refining ideas for their creative projects.
12. **Annotation and Documentation:** Effectively recording thoughts, processes, and critical reflections in sketchbooks or portfolios.
13. **Media Handling:** Mastery of various art materials, techniques, and media.
14. **Technique Adaptation:** The ability to adapt techniques to achieve desired artistic outcomes.
15. **Mixed Media Exploration:** Experimenting with the combination of different media and materials.
16. **Sculptural Skills:** Developing skills in three-dimensional art, including working with different materials and tools.
17. **Printmaking Skills:** Proficiency in various printmaking techniques, such as etching, lino printing, or screen printing.

Holistic marking throughout the project via one to one sessions and continuous assessment and monitoring sheets.

Key writing pieces such as artist analysis will be marked for accuracy, complexity of thought and SPAG.

- |  |  |  |   |  |
|--|--|--|---|--|
|  |  |  | <ul style="list-style-type: none"><li>18. <b>Digital Art Proficiency:</b> Utilizing digital tools and software for artistic expression.</li><li>18. <b>Conceptual Thinking:</b> Cultivating the ability to translate ideas into meaningful and engaging artwork.</li><li>19. <b>Composition and Design:</b> Understanding principles of composition, layout, balance, and visual hierarchy.</li><li>20. <b>Conceptual Development:</b> Progressing from initial ideas to final, well-developed concepts.</li><li>21. <b>Artistic Problem-Solving:</b> Effectively addressing challenges and making creative decisions.</li><li>22. <b>Personal Voice:</b> Developing a distinctive artistic style and self-expression.</li><li>21. <b>Final Outcome Creation:</b> Producing refined and well-crafted final pieces of artwork.</li><li>22. <b>Presentation Skills:</b> Learning to present and display artwork effectively.</li><li>23. <b>Portfolio Development:</b> Building a comprehensive and cohesive portfolio that showcases their range and skills.</li><li>24. <b>Artistic Critique:</b> Providing constructive feedback and critique on their work and the work of peers.</li><li>25. <b>Self-Evaluation:</b> Reflecting on their own artistic growth, strengths, and areas for improvement.</li><li>26. <b>Response to External Influences:</b> Demonstrating how external influences, such as other artists or cultural contexts, have informed their work.</li></ul> |  |
|--|--|--|---|--|

			<p>These skills are integral to a comprehensive art education and are key to success in the AQA Art, Craft, and Design GCSE. They equip students not only with artistic proficiency but also with the ability to think critically, work independently, and engage with the world of art and design in a meaningful way.</p>	
--	--	--	---	--



SUMMER

10 hour art Exam and cease of Art GCSE

Students undertake their final 10-hour exam, which is produced over a number of sessions under exam conditions, this will take place in the art rooms. They will be given their exam sketchbook prep work each session to be able to use as inspiration. This will be locked away after each session in a secure area. Their final piece will have been drafted and refined many times before the penultimate exam so students are well prepared. Students will not be permitted to add work to their portfolio once the 10 hour timed session has begun. Once the 10 hour examination is complete, students have finished the Art, Craft and Design GCSE and should feel extremely proud of themselves.

When preparing for the 10-hour final examination in the AQA Art, Craft, and Design GCSE, Year 11 students can gain a specific set of skills that are crucial for successfully completing this high-stakes assessment. These skills are a culmination of what they've learned throughout their chosen projects and coursework. Here are the key skills they can acquire:

- 1. Time Management:** Learning to manage time effectively within the 10-hour examination period to ensure that they can complete their work on time.
- 2. Stress Management:** Developing the ability to work under pressure and handle the stress associated with a time-limited examination.
- 3. Conceptualization:** Applying the skills gained during project work to formulate and refine a clear concept or idea for their final outcome.
- 4. Material Selection:** Choosing appropriate materials and media based on the project's requirements and their understanding of the medium's properties.
- 5. Technical Proficiency:** Demonstrating mastery of various art techniques, both traditional and digital, as required for their chosen project.
- 6. Problem-Solving:** Adapting to unexpected challenges or problems that may arise during the examination and finding creative solutions.
- 7. Focus and Concentration:** Maintaining focus on the task at hand and concentrating on the creative process despite time constraints and examination conditions.
- 8. Decision-Making:** Making critical artistic decisions regarding composition, colour, and form to achieve the desired outcome.
- 9. Adaptability:** Being flexible in their approach and open to making changes if the initial concept isn't working as intended.
- 10. Critical Evaluation:** Continuously assessing their work throughout the 10 hours, identifying areas that need improvement or adjustment.
- 11. Precision and Attention to Detail:** Ensuring precision and a keen attention to detail in their final piece to create a polished and professional outcome.

Worked will be marked by Art teacher as follows:

**Component 1 (Year 10 natural forms project and Year 11 past paper project) = 60% of overall marks**

**Component 2 (Exam board set paper released in January of year 11 + 10 hour exam) =40% of overall marks**

A sample of the work from the cohort is sent to another school to be standardised.

A moderator working for AQA will then come into school to ensure consistent marking.

**12. Creativity and Originality:** Applying creative thinking to make their final piece unique and reflective of their personal artistic style.

**13. Documentation:** Keeping clear records and annotations about their process during the examination, which can be used to support their evaluation and reflection.

**14. Confidence and Self-Assurance:** Trusting their artistic skills and their ability to produce a high-quality outcome within the time constraints.

**15. Presentation Skills:** Preparing and presenting the final outcome for assessment, ensuring it is well-presented and effectively displayed.

These skills are not only critical for success in the 10-hour examination but also transferable to other aspects of life, such as problem-solving, decision-making, and time management. Completing this examination is a significant achievement, and the skills gained during this process contribute to the students' artistic growth and development.



**Intent:**

The intent of our Computer Science at GCSE is to equip students with the fundamental knowledge and skills in understanding, creating, and applying computer programs. This curriculum emphasizes problem-solving, algorithmic thinking, and computational logic whilst enhancing and perfecting their programming skills. The subject aims to cultivate a deep understanding of computing concepts, preparing students for an increasingly digital future. It provides a foundation for higher-level studies and fosters analytical thinking essential in various careers. The course empowers students to become not just users but creators of technology, promoting innovation and adaptability in an evolving technological landscape.

**Why I study Computer Science?**

Pupils are encouraged to challenge themselves by demonstrating an array of different computing competencies. Our KS3 curriculum reflects the required skills and techniques students need to be confident and independent in a range of Computing skillsets. In school we present and allow opportunities for enrichment such as promoting Computing for girls, code clubs and trips to workplace visits. By the end of KS4 the students will have the skillset and tools to tackle the ever-changing digital landscape.

I learn Computer Science because:

- It allows me to be a critical and lateral thinker.
- It develops my computational thinking and problem-solving skills.
- It increases my digital skills needed for any career path.

**Cultural capital/enrichment**

Half term	Topic	Key knowledge	Key skills I will learn in this topic	Assessment opportunities
-----------	-------	---------------	---------------------------------------	--------------------------

				(Summative and formative) Key pieces
Aut 1&2	Architecture of the CPU	The purpose of the CPU, Common CPU components and Vonn Neuman Architecture.	<p>Learn what actions occur at each stage of the fetch-execute cycle</p> <p>Able to understand and explain the role/purpose of each component and what it manages, stores, or controls during the fetch-execute cycle.</p> <p>The purpose of each register, what it stores (data or address)</p> <p>The difference between storing data and an address</p>	<p>assessment opportunities are provided through hands down questioning, discussions, brain storming, spider diagrams, quizzes, verbal feedback, self and peer assessment</p> <p>Throughout the year, students will complete exam style questions relating to topics gone over in class.</p> <p>Students will also do a test at the end of a topic which will review everything we have done up until that point.</p>
	CPU performance	How common characteristics of CPUs affect their performance:	<p>Learn and understand the roles of the following:</p> <ul style="list-style-type: none"> <li>• Clock speed</li> <li>• Cache size</li> <li>• Number of cores</li> </ul> <p>And how they can affect performance, individually or as a combination</p>	
	Embedded Systems	The purpose and characteristics of Embedded Systems	Be able to give examples of devices which have Embedded Systems and explain the job that they do.	

	<p>Primary Storage</p> <p>Secondary Storage</p> <p>Units of storage</p>	<p>Explain why computers have primary storage and how this usually consists of RAM and ROM Key characteristics of RAM and ROM Why virtual memory may be needed in a system How virtual memory works</p> <p>The need for secondary storage, and the common types of Secondary storage</p> <p>The advantages and disadvantages of different storage devices and storage media relating to these characteristics</p> <p>The different units of Data</p>	<p>Be able to explain and describe why Primary storage is important/needed whilst identifying key differences between RAM and ROM, examining the different characteristics of both.</p> <p>Demonstrate an understanding of why computers have secondary storage and the ability to give examples of types of Secondary Storage.</p> <p>Recognise the differences between storage devices and mediums, whilst explaining the advantages and disadvantages of each (Optical, Magnetic, Solid State)</p> <p>Be able to apply the above knowledge to different scenarios and suggest the most suitable technology for different tasks.</p> <p>Familiarity with data units and learn how to move between each:</p> <ol style="list-style-type: none"> <li>1. Bit</li> <li>2. Nibble (4 bits)</li> <li>3. Byte (8 bits)</li> <li>4. Kilobyte (1,000 bytes or 1 KB)</li> <li>5. Megabyte (1,000 KB)</li> <li>6. Gigabyte (1,000 MB)</li> <li>7. Terabyte (1,000 GB)</li> <li>8. Petabyte (1,000 TB)</li> </ol>	<p>Throughout KS4 students will also sit Mock Exams in line with the Exam Timetable which will be as close to a real exam as possible giving students a taste of what the real thing would be.</p>
--	---	--	---	--

	Data Storage	<p>How data needs to be converted into a binary format to be processed by a computer</p> <p>Data capacity and calculation of data capacity requirements</p> <p>How to convert between denary numbers to binary numbers (Vice Versa)</p> <p>Binary Addition</p> <p>Hexadecimal conversions to binary and denary (Vice Versa)</p> <p>Binary Shift</p>	<p>Learn why data needs to be stored in Binary format and why computers use this method</p> <p>Calculate file sizes of sound, images and text files  <math>\text{sound file size} = \text{sample rate} \times \text{duration (s)} \times \text{bit depth}</math>  <math>\text{image file size} = \text{colour depth} \times \text{image height (px)} \times \text{image width (px)}</math>  <math>\text{text file size} = \text{bits per character} \times \text{number of characters}</math></p> <p>Understanding the Denary number range 0-255</p> <p>Learn how to add two 8-bit binary numbers together whilst being able to explain what overflows are</p> <p>Understand and demonstrate the hexadecimal range 00-FF and be able to convert from either</p> <p>Understand the effect of a binary shift (both left or right) on a binary number whilst being able to demonstrate how these look/work (both left and right)</p>	
--	--------------	---	---	--

Spring 1&2	Networks	<p>Images</p> <p>Sound</p> <p>Compression</p> <p>Types of networks Factors that can affect the performance of a network</p> <p>Hardware needed for a LAN</p> <p>Topologies</p>	<p>Understand how an image is represented by a series of pixels represented in Binary</p> <p>Understand Metadata and the affect colour depth and resolution has on the quality of the image and the size of the file.</p> <p>Understand and show how analogue sound is converted into a digital format and how the sample rate affects the quality and size of the file.</p> <p>Learn how compressing a file can affect the quality and size of a file depending on the style of compression used (Lossy/Lossless)</p> <p>Identify and explain the differences between a LAN &amp; WAN Demonstrate and explain the different factors that can affect the performance of a network (E.g. Bandwidth, number of devices)</p> <p>Learn and explain the tasks/jobs performed by the following pieces of Hardware:</p> <p>Wireless Access Point (WAP) Routers Switches Network Interface Controller/Card (NIC) Transmission Media</p> <p>Understanding and comparing the word Topologies and identify the differences between a Star topology and a Mesh topology.</p>	
---------------	----------	--	--	--

		<p>Wired and Wireless networks</p> <p>Encryption</p> <p>Protocols</p> <p>Layers</p> <p>Threats to computer systems and networks</p>	<p>Whilst explaining what are the advantages and disadvantages of both</p> <p>Look at and investigate what are the advantages and drawbacks to both wired and wireless networks.</p> <p>Learn how encryption is used and what the benefits are for its use</p> <p>Learn which of the following common protocols would be used for different tasks then apply this knowledge to different scenarios.</p> <p>TCP/IP (Transmission Control Protocol/Internet Protocol)  HTTP (Hyper Text Transfer Protocol)  HTTPS (Hyper Text Transfer Protocol Secure)  FTP (File Transfer Protocol)  POP (Post Office Protocol)  IMAP (Internet Message Access Protocol)  SMTP (Simple Mail Transfer Protocol)</p> <p>Understand how the concept of layers are used with protocols, and the benefits of using layers; referring to the 4-layer TCP/IP model</p> <p>Learn to recognize the different forms of attacks which can negatively affect a network:  Malware  Social Engineering  Brute-force attacks  Denial of service attacks  Data interception and theft</p>	
--	--	---	---	--



	Systems Software	<p>Preventative measures and identifying vulnerabilities</p> <p>Operating systems</p>	<p>SQL Injection</p> <p>Identifying the different methods available which can help prevent threats:  Penetration testing  Anti-malware software  Firewalls  User Access Levels  Passwords  Encryption  Physical Security</p> <p>Identifying and explaining the need for operating systems whilst looking at the functionality of the following:  User interface  Memory Management  Multitasking  User Management  File Management</p> <p>Students should understand that:  Data is transferred between devices and the processor  This process needs to be managed  User management functions, e.g.:  Allocation of an account  Access rights  Security, etc.  File management, and the key features, e.g.:  Naming § Allocating to folders</p>	
--	------------------	---	--	--

	<p>Ethical, legal, cultural and environmental impacts of digital technology</p>	<p>Utility Software</p> <p>Ethical, legal, cultural and environmental impacts</p> <p>Legislation relevant to Computer Science:  The Data Protection Act 2018  Computer Misuse Act 1990  Copyright Designs and Patents Act 1988  Software licences (i.e. open source and proprietary)</p>	<p>Moving files  Saving, etc</p> <p>Understanding the different types of utility software and what their function is.  Understand that computers often come with utility software, and how this performs housekeeping tasks. (Encryption, Compression, Defragmentation)</p> <p>Technology introduces ethical, legal, cultural, environmental and privacy issues. Knowledge of a variety of examples of digital technology and how this impacts on society. An ability to discuss the impact of technology based around the issues listed.</p> <p>Learn the purpose of each piece of legislation and the specific actions it allows or prohibits.  The need to license software and the purpose of a software licence  Features of open source (providing access to the source code and the ability to change the software)  Features of proprietary (no access to the source code, purchased commonly as off-the-shelf)  Recommend a type of licence for a given scenario including benefits and drawbacks  Understanding of these principles and how they are used to define and refine problems</p>	
--	---	--	---	--

	<p>Algorithms</p>	<p>Computational Thinking  Principles of computational thinking:  Abstraction  Decomposition  Algorithmic Thinking  Designing, creating and refining algorithms</p> <p>Standard searching algorithms:  Binary search  Linear search  Standard sorting algorithms:  Bubble sort  Merge sort  Insertion sort</p> <p>The use of variables, constants, operators, inputs, outputs and assignments.</p>	<p>Identify the inputs, processes, and outputs for a problem  Structure diagrams  Create, interpret, correct, complete, and refine algorithms using:  Pseudocode  Flowcharts  Reference language/high-level programming language  Identify common errors  Trace tables</p> <p>Learn an understanding of the main steps of each algorithm  Understand any pre-requisites of an algorithm  Apply the algorithm to a data set  Identify an algorithm if given the code or pseudocode for it</p> <p>Practical use of the techniques in a high-level language within the classroom  Understanding of each technique  Recognise and use comparison and arithmetic operators</p>	
--	-------------------	--	---	--

<p>Summer 1&amp;2</p>	<p>Programming Fundamentals</p>	<p>The use of the three basic programming constructs used to control the flow of a program:  Sequence  Selection  Iteration (count- and condition-controlled loops)  The common arithmetic operators  The common Boolean operators AND, OR and NOT</p> <p>Data Types:  Integer  Real  String  Boolean  Casting</p> <p>Additional programming techniques:  The use of basic string manipulation  The use of basic file handling operations:  Open  Read  Write  Close  The use of records to store data  The use of SQL to search for data  The use of arrays (or equivalent) when solving problems, including both one-dimensional (1D) and two-dimensional arrays (2D)  How to use sub programs (functions and procedures) to produce structured code</p>	<p>Learn and use the different data types in a high-level language within the classroom.  Ability to choose suitable data types for data in a given scenario  Understand that data types may be temporarily changed through casting, and where this may be useful</p> <p>Practical use of the additional programming techniques using a high-level language within the classroom.  Enhance their ability to manipulate strings, including:  Concatenation  Slicing  Arrays as fixed length or static structures  Use of 2D arrays to emulate database tables of a collection of fields, and records  The use of functions  The use of procedures  Where to use functions and procedures effectively  The use of the following within functions and procedures:  local variables/constants  global variables/constants  arrays (passing and returning)  SQL commands:  SELECT  FROM  WHERE</p>	
-----------------------	---------------------------------	--	---	--

		<p>Random number generation</p> <p>Defensive Design considerations:  Anticipating misuse  Authentication  Input validation  Maintainability:  Use of sub programs  Naming conventions  Indentation  Commenting</p> <p>Testing  The purpose of testing  Types of testing:  Iterative  Final/terminal  Identify syntax and logic errors  Selecting and using suitable test data:  Normal  Boundary  Invalid/Erroneous</p>	<p>Be able to create and use random numbers in a program</p> <p>Enhance the understanding of the issues a programmer should consider to ensure that a program caters for all likely input values  Understanding of how to deal with invalid data in a program  Authentication to confirm the identity of a user  Practical experience of designing input validation and simple authentication (e.g. username and password)  Understand why commenting is useful and apply this appropriately</p> <p>Learn and compare the difference between testing modules of a program during development and testing the program at the end of production  Syntax errors as errors which break the grammatical rules of the programming language and stop it from being run/translated  Logic errors as errors which produce unexpected output  Normal test data as data which should be accepted by a program without causing errors  Boundary test data as data of the correct type which is on the very edge of being valid  Invalid test data as data of the correct data type which should be rejected by a computer system</p>	
--	--	---	--	--

	<p>Boolean Logic</p>	<p>Refining algorithms</p> <p>Simple logic diagrams using the operators AND, OR and NOT</p> <p>Logic Circuits/Diagrams</p> <p>Truth Tables</p> <p>Combining Boolean operators using AND, OR and NOT</p>	<p>Erroneous test data as data of the incorrect data type which should be rejected by a computer system</p> <p>Ability to identify suitable test data for a given scenario</p> <p>Ability to create/complete a test plan</p> <p>Learn/compare each gate symbol and apply this knowledge to different scenarios.</p> <p>Learn how to create, complete or edit logic diagrams</p> <p>Learn how to complete a the truth tables for each logic gate</p> <p>Ability to work with more than one gate in a logic diagram</p> <p>Understand and identify the differences between high- and low-level programming languages</p>	
--	----------------------	---	--	--

	<p>Languages</p>         <p>The Integrated Development Environment (IDE)</p>	<p>Characteristics and purpose of different levels of programming language: High-level languages Low-level languages</p> <p>The purpose of translators</p> <p>The characteristics of a compiler and an interpreter</p> <p>Common tools and facilities available in an Integrated Development Environment (IDE): Editors Error diagnostics Run-time environment Translators</p>	<p>Learn to explain how a translator works and the need for them</p> <p>Explain and demonstrate the differences, benefits and drawbacks of using a compiler or an Interpreter</p> <p>Create an understanding of the tools that an IDE provides How each of the tools and facilities listed can be used to help a programmer develop a program Practical experience of using a range of these tools within at least one IDE</p>	
--	---	--	--	--



### Intent:

Our intent is to provide Sale High students with broad scope of knowledge that challenges the way students think about the arts and teaches them to accept and embrace difference. We want our students to be confident and understand how the arts can benefit all aspects of life such as promoting confidence and good communication skills, to teach them that creating safe and comfortable spaces where people of all backgrounds can make, celebrate and learning together is empowering. Students study a range of topics containing either a written, devised or scripted aspect that prepares them for GCSE and beyond. Topics are chosen to develop creativity and co-operation and challenge students to experience a range of perspectives, issues and events. There is a sharp focus on developing students descriptive, analytical, and evaluative skills, crucial skills for life beyond Sale High School. Students develop knowledge of theatrical styles, script writing, vocal skills and physical skills to build confidence and enhance communication skills and literacy skills. Students implement, improve and transfer these skills through a variety of context, to encourage flexible learners. Students experience both traditional styles of drama and more contemporary, challenging them to develop opinions and appreciate work that is not necessarily what they would choose to watch. This promotes acceptance and a balanced outlook crucial to life in general.

### Why I study Drama?

#### *I study Drama because:*

- I can be creative and collaborative
- I learn how to present myself to an audience
- I will view the world from different perspectives

### Cultural capital/enrichment

Performance/presentation skills – awareness of the audience, self-confidence, use of vocal and physical skills

-Exploration of own thoughts and feelings through a character, considering what is right and wrong

-Creative collaboration to develop working relationships outside of friendship groups

-Giving/receiving constructive criticism about peer's performances

-Observing different types of theatre from different time periods and countries

-Writing for particular audiences, considering the emotions/experiences of the character they are portraying

-Working with challenging topics in order to expand their understanding of 'real' issues, including mental health issues and peer pressure

- Participating in our Extra-curricular drama company 'Platinum Stars' (an opportunity for students be part of a fun and safe environment for young people to experience creating and rehearsing theatre performance for a specific event)

-Participating in the whole school production allows students to experience performing in a theatre, to a paying audience.



Half term	Topic	Key knowledge	Key skills I will learn in this topic	Assessment opportunities (Summative and formative)
AUTUMN	COMPOnent 3 – Texts in Practise & Component 1 – Understanding Drama	<p><b>Component 3 Text in Practice</b> Creating Key Extracts from A Play (20%)</p> <p>Students will perform Monologues, Duologues, or a group piece from a set text. The performances will be recorded and sent to an external examiner to mark the student's performance.</p> <p>The students must:</p> <ul style="list-style-type: none"> <li>• Demonstrate a practical understanding of the text</li> <li>• Interpret text effectively</li> <li>• Create and communicate meaning</li> <li>• Realise artistic intentions in text-based drama</li> </ul> <p><b>Component 1 – Understanding Drama</b></p> <p>Students will use the remainder of the course to revise for their final examination.</p> <p>We merge practical lessons (exploring the script of <u>Blood Brothers</u>) with a wide range of revision strategies to allow all learners and all learning styles to access the best revision tools they need to prepare fully for the exam paper.</p> <p><u>Live Theatre Review</u> Students will complete a study and analysis of a digital theatre performance. They will prepare for possible examination questions, refine their work and redraft to ensure they have a clear understanding of the performance and the possible questions they will study.</p>	<p><b>Component 3 Text in Practice</b></p> <p>Demonstrate a practical understanding of the text by effectively applying the content and context of a play they are given.</p> <p>Learn to interpret the text to convey its deeper meanings, themes, and nuances.</p> <p>Know how to create and communicate the intended meaning of the text through their performances.</p> <p>How to increase the range of vocal and physical skills to perform a script and create appropriate characters</p> <p><b>Component 1 – Understanding Drama</b></p> <p>Students will engage in practical lessons, diving deep into the script of "Blood Brothers" to build a solid foundation of understanding of the characters, context, plot and ways to interpret different roles.</p> <p>Students will learn how to answer the questions from the written exam and will use metacognitive strategies to help remember how to structure/key skills to include in their answers.</p> <p><u>Live Theatre Review</u> Students will learn to identify where actors have used vocal and physical skills to convey meaning. Students will how to analyse and evaluate performances from an actor in order to answer the live theatre review question in the exam.</p>	<p>Groups perform in front of the class and teacher frequently so feedback is given throughout lessons.</p> <p>Frequent, in class, timed questions.</p> <p>Use of whiteboards, questioning and written assessments.</p> <p>Winter PPE – Covering Component 1 content</p>

SPRING	COMP 3 & COMP 1	Continued study of units, as above.	Continued study of units, as above.	Component 3 GCSE scripted performance with external examiner.  February PPE
SUMMER	COMP 1	<p><b>Component 1 – Understanding Drama</b></p> <p>Students will use the remainder of the course to revise for their final examination.</p> <p>Exploring and refining a wide range of revision strategies to allow all learners to access the best revision tools they need to prepare fully for the exam paper.</p> <p><u>Completion of Live Theatre Review</u> Students will complete a study and analysis of a digital theatre performance. They will prepare for possible examination questions, refine their work and redraft to ensure they have a clear understanding of the performance and the possible questions they will study.</p>	<p><b>Component 1 – Understanding Drama</b></p> <p>Students will continue their work on "Blood Brothers" to hone their understanding of the characters, context, plot and ways to interpret different roles. They will apply this knowledge to a variety of sample questions to prepare them for the written exam. Students will analyse the quality of their answers and those of their peers, comparing them against exemplar answers.</p> <p>Students will be taught where marks were lost in previous student work in order to avoid the same mistakes.</p> <p><u>Completion of Live Theatre Review</u> Students will refine their review and relate their findings to their own work in order improve written exam preparation and incorporate skills into practical work they continue to undertake both inside and outside of school</p>	<p>Frequent, in class, timed questions.</p> <p>Use of whiteboards, questioning and written assessments.</p>

## Curriculum Map Year 11: Design & Technology



### Intent:

- Design & Technology encourages students to make informed technological choices, considering global, cultural, ethical, environmental, political, and economic factors.
- Students learn to innovate by combining traditional and modern technologies, focusing on the iterative design cycle to develop creative solutions to everyday challenges.
- The subject integrates mathematics, science, engineering, computing, geography, business, and art.
- It goes beyond practical skills, developing Creative Thinking & Innovation, Problem-Solving, Practical & Technical Skills, Collaboration & Teamwork, Project Management, Analytical & Research Skills, Resilience & Adaptability, Entrepreneurial Thinking, and Attention to Detail.

### Why I study Design & Technology?

We provide opportunities, which allow students to develop a knowledge of a range of technology areas in KS3. Students should grow in confidence through dedicated teaching environments, manufacturing equipment and specialist teaching. As students' progress to KS4 they choose an area within Design & Technology to study. In the chosen area, the subject allows for deeper study of the world they live in, potential career opportunities and with the skills developed at KS3 the confidence to take risks, become resourceful, innovative, enterprising and capable citizens. The subject encourages students to design and make products that solve real and relevant problems, within a variety of contexts, while considering their own and other's needs, wants and values. Cultural capital is explored across the key stages by appreciation of the work of others locally, nationally and internationally, each subject identifies and relates to real contextual challenges focussing upon people, communities or businesses.

I learn Design & Technology because:

- It allows me to be creative and innovative.
- It develops my problem solving and evaluation skills.
- It increases my understanding of how the world around me has been created.

### Cultural capital/enrichment

Our carefully structured DT curriculum provides opportunities that are additional to the National Curriculum. Design technology helps to build cultural capital through exposure to life-skills such as innovation and entrepreneurship. Our curriculum enables and nurtures a love of design and technology, helping students to develop the skills required for their future working life.

Students will learn about a range of areas where designing and creating for a purpose take places. We link these subjects to real life experiences and famous designers and communicating ideas and developing prototypes using CAD.

Half term	Topic	Key knowledge	Key skills I will learn in this topic	Assessment opportunities (Summative and formative) Key pieces
-----------	-------	---------------	---------------------------------------	---

<p>Autumn 1&amp;2 Spring 1&amp;2</p>	<p>Gcse NEA.(course work).</p>	<p>Students will complete a controlled assessment that will form 50% of their final GCSE Grade. Key knowledge that they must cover is:</p> <p>Understand that all design and technological practice takes place within contexts which inform outcomes.</p> <p>know how to Identify and understand client and user needs through the collection of primary and secondary data.</p> <p>Demonstrate an ability to write a design brief and specifications from their own and others' considerations of human needs, wants and interests.</p> <p>Understand how to investigate factors, such as environmental, social and economic challenges, in order to identify opportunities and constraints that influence the processes of designing and making.</p> <p>Know how to explore and develop their ideas, testing, critically analysing and evaluating their work in order to inform and refine their design decisions thus achieving improved outcomes.</p> <p>Understand the importance of Investigating the work of past and present professionals and companies in the area of design and technology in order to help inform their own ideas.</p> <p>Understand how to develop, communicate, record and justify design ideas, applying suitable techniques, for example: formal and informal 2D and 3D drawing; system and schematic diagrams; annotated sketches; exploded diagrams; models; presentations; written notes; working drawings; schedules;</p>	<p>Be able to analyse context in detail to identify design possibilities.</p> <p>Be able to analyse the wants and needs of a consumer and produce a report that takes into consideration primary and secondary data.</p> <p>Be able to write 3 design briefs that identify a design problem and consumer. Be able to write a detailed specification that has measurable criteria.</p> <p>Be able to conduct research that reflects on sustainability, social and human factors and be able to use this research to help form their design decisions.</p> <p>Be able to develop designs using the iterative method, students will be able to use arrange of methods including sketching, CAD and prototyping. Students will be able to use the work of other professionals to help develop their design ideas.</p>	<p>The NEA is a controlled assessment. There are strict requirements when using assessment and feedback. Students must work independently and self-assess their own work against the gcse specification's criteria.</p>
--	--------------------------------	--	---	---

		<p>audio and visual recordings; mathematical modelling; computer-based tools.</p> <p>Understand how to design and develop at least one prototype that responds to needs and/or wants and is fit for purpose, demonstrating functionality, aesthetics, marketability and consideration of innovation.</p> <p>Know how to make informed and reasoned decisions, respond to feedback about their own prototypes (and existing products and systems) to identify the potential for further development and suggest how modifications could be made.</p>	<p>Be able to make a commercially viable prototype that meets the wants and needs of an identified user and meets the requirements of a design specification.</p> <p>Be able to evaluate prototypes taking into consideration feedback received and suggest ways that the prototype can be improved.</p>	
Summer 1&2	Exam preparation	<p>Students will prepare for the summer exam by revisiting core and specialist knowledge covered in year 10.</p> <p><b>Technical principles</b></p> <p><b>Core knowledge and understanding topic areas:</b></p> <ul style="list-style-type: none"> <li>• design and technology and our world</li> <li>• smart materials</li> <li>• electronic systems and programmable components</li> <li>• mechanical components and devices</li> <li>• materials</li> </ul> <p><b>In-depth knowledge and understanding topic areas:</b></p> <ul style="list-style-type: none"> <li>• electronic systems, programmable components &amp; mechanical devices</li> <li>• papers &amp; boards</li> <li>• natural &amp; manufactured timber</li> <li>• ferrous &amp; non-ferrous metals</li> <li>• thermoforming &amp; thermosetting polymers</li> <li>• fibres &amp; textiles</li> </ul>	<p>Be able to develop core and specialist knowledge that will enable students to fully access the written GCSE exam.</p>	<p>Students will be assessed through varying formative and summative methods.</p> <p>White board quizzing.</p> <p>Online quizzes</p> <p>Practice exams</p> <p>Peer and self-assessment activities</p>

## Curriculum Map Year English 11:



**Intent:** Across both Key Stages, we aim to ensure that our students are able to learn how to **identify** and **explore the impact of language** within a variety of different contexts. We explore various genres, forms, structures and purposes of literary works, in order to emphasise the importance of reading and writing as a way of **successfully engaging with the world**, both within the school context and the wider society. At the core, we strive to inspire our young learners to become **competent and confident communicators**, consciously teaching reading and writing skills within every year group, which enables us to demonstrate the progress students make when accessing a multitude of texts which have been produced across the ages for a variety of different reasons.

Through the Key Stages we have designed the curriculum to help our students both improve and refine their reading and writing skills, with a progressively more demanding set of skills taught and revisited throughout the schemes as students travel from Year 7 to Year 11, implementing things such as variations of sentence structures and increasingly difficult and interesting vocabulary. We explore the **etymology** of language and how this correlates to the context from within which it was written, aiding our students' ability to **interpret and infer** with greater confidence.

We want to inspire our students to develop their own **love of language**, to become **critical thinkers**, engaging with moral ideas, and to widen their perspectives when establishing their own impressions and opinions when exploring literary materials. Furthermore, we continue to develop our curriculum content to encourage and enable our students to be empathetic with different points of view, to be understanding when analysing and evaluating character and theme and to be able to both speak and write with clarity and purpose.

### Why I study English?

#### *I study English because:*

- *It enables me to communicate freely and effectively*
- *I understand more about global culture, thought and literature*
- *Having a love of language and literature transports me to other worlds*

### Cultural capital/enrichment

Whilst curriculum time in Year 11 is both precious and limited, students are still afforded the opportunity to develop their understanding of the set Literature texts studied in the form of live performances and workshops. In the Autumn term, we will be welcoming performers into school for an on-site visit, which will be delivered in our Main Hall. They will be offering our students a performance of both Shakespeare's 'Macbeth' and Charles Dickens' 'A Christmas Carol', both of which will be assessed in the AQA Literature Paper 1. Following this, in early Spring we will also be running an afterschool trip to watch a live performance of J.B Priestley's 'An Inspector Calls'.

Half term	Topic	Key knowledge	Key skills I will learn in this topic	Assessment opportunities (Summative and formative) Key pieces
-----------	-------	---------------	---------------------------------------	---

<p>Autumn 1 (8 weeks)</p>	<p>'A Christmas Carol'  (C19th Fiction – AQA Literature Paper 1)</p>	<p>Students will explore the social and historical context of the Victorian period and will analyse how Charles Dickens used language, themes and structure to appeal to Victorian readers, as well as how he addressed social inequalities of the Victorian period.</p> <p>In their final exam, students will be required to analyse a theme or character within an extract and elsewhere in the play as a whole, so will study plot, characters, themes and Dickens' use of language, whilst developing skills of critical interpretation.</p> <p>Students will engage with an in-depth study and close annotation of the whole novella in the classroom.</p>	<p>Students will be given opportunities to develop the key skills of the Assessment Objectives, which include developing a personal response (AO1), using textual references/quotations to support interpretations (AO1), analysing language, form and structure (AO2) and considering the context behind the novella (AO3).</p> <p>Students will develop and refine skills in:</p> <ul style="list-style-type: none"> <li>- Revision of plot and character;</li> <li>- Understanding and successfully commenting on the message and social criticism in the text;</li> <li>- Understanding how to structure a literary essay and develop personal response;</li> <li>- Successfully selecting whole and judicious textual references;</li> <li>- Referencing relevant Victorian context of 'A Christmas Carol';</li> <li>- The analysis and interpretation of symbols/symbolism/allegorical messages.</li> </ul>	<p>Formative on-going assessment of knowledge using starters and plenaries, low stakes quizzing and whole class feedback sheets.</p> <p>Reading: vocabulary, comprehension, inference &amp; analysis.</p> <p>Oracy: Reading out loud to stress modifiers (and therefore meaning).</p> <p>Mid-term assessment: Partial exam response/essay on an unseen (but previously studied) extract from the novella, addressing the first of the two assessment criteria – responding to the question in relation to the <u>extract only</u>. They will be given feedback on how they demonstrate AO1, AO2 and AO3.</p> <p>End of topic assessment: Full exam response/essay on an unseen extract from the novella, addressing both of the assessment criteria – responding to the question in relation to both extract and whole text. They will be assessed on AO1, AO2 and AO3.</p>
<p>Autumn 2 (7 weeks)</p>	<p>'A Christmas Carol'</p>	<p>Students will start the term by completing and consolidating their learning of the C19th text (see Autumn 1 for Knowledge and Skills taught), before revisiting their prior learning from Year 10 of the AQA Language Paper 1,</p>	<p>Student will return to and refine their skills of:</p> <ul style="list-style-type: none"> <li>- Knowing how to actively read and annotate;</li> <li>- identifying and explaining a writer's intention in a play and poetry;</li> </ul>	<p>Whole class feedback sheets.</p> <p>Winter Exams: Students will complete a full AQA Literature Paper 2 in exam conditions.</p>

	<p>(C19th Fiction – AQA Literature Paper 1)</p> <p>Winter Exams</p> <p>(AQA Literature Paper 2 Revision and Assessment)</p>	<p>which will be assessed in the Winter Exam series.</p> <p>AQA Literature Paper 2 Revision:</p> <p>Students will revise the set text ‘An Inspector Calls’, the ‘Power and Conflict’ poetry anthology, and the skills required to successfully comment on/analyse unseen poetry to equip them with the skills needed for their GCSE mock exam this term.</p> <p>As part of this revision, students will:</p> <ul style="list-style-type: none"> <li>- Show an understanding of tasks/texts, plot, characters. Use quotations and make inferences (AO1);</li> <li>- Explain, comment and analyse the use of language &amp; structural features to achieve effects and influence readers (AO2);</li> <li>- Show an understanding of the relationship between the texts and the context they were written (AO3);</li> <li>- Use a range of vocabulary and sentence structures for clarity, purpose and effect, with accurate spelling and punctuation (AO4);</li> </ul>	<ul style="list-style-type: none"> <li>- identifying language and structural techniques used, e.g. metaphor, simile, personification, semantic field;</li> <li>- identifying and explaining the impact of structural techniques (use of dialogue, developments across text, changes in setting &amp; character, foreshadowing, flashbacks, media res, rhyme, juxtaposition etc.);</li> <li>- identifying and explaining the use of form;</li> <li>- using quotations to support responses: varying length and being judicious;</li> <li>- responding to a previously unseen text (unseen poetry);</li> <li>- writing thesis statements and refining their essay writing skills, including writing comparisons.</li> </ul>	<p>This will be completed within the school’s mock exam window, and will be in controlled conditions.</p>
<p>Spring 1</p> <p>(6 weeks)</p>	<p>‘Macbeth’</p> <p>(Shakespeare play – AQA Literature Paper 1)</p>	<p>Students will develop an understanding of the classic tragedy, as well as exploring the context of the production of ‘Macbeth’. They will further develop their ability to respond to a literary text, writing analytically through their exploration of how Shakespeare uses language, structure and dramatic techniques to present characters and themes.</p> <p>Students will be required to analyse a given extract and explore themes, characters and ideas presented in both the extract and</p>	<p>Building on the previous Literature units already studied by this point, students will develop an understanding of how to:</p> <ul style="list-style-type: none"> <li>- Identify and interpret the focus of their GCSE question, in order to craft successful responses;</li> <li>- Carefully select relevant and valuable references from the text for the purpose of analysis;</li> <li>- Successfully structure an essay response, practising the use of topic</li> </ul>	<p>Formative on-going assessment of knowledge using starters and plenaries and low stakes quizzing to incorporate spiral learning.</p> <p>Whole class feedback sheets.</p> <p>Reading: vocabulary, comprehension, inference &amp; analysis.</p> <p>Oracy: Reading out loud to stress modifiers (and therefore meaning).</p>



		<p>elsewhere in the play, so will be working on developing skills of written analysis in response to their reading of the play.</p> <p>They will develop a confident understanding of Shakespeare's characters, themes, ideas, social and historical context of the Jacobean era, as well as how to approach and interpret Shakespeare's language in order to successfully interpret and analyse this. Students will explore how ideas within the text are contextually linked and shaped by society at the time and learn how to effectively cross-reference ideas to formulate a perceptive and critical argument.</p>	<p>sentences and/or a thesis statement;</p> <ul style="list-style-type: none"> <li>- Effectively analyse a writer's use of language, structure and form, using accurate subject terminology.</li> </ul>	<p>Mid-term assessment: Partial exam response/essay on an unseen (but previously studied) extract from the play, addressing the first of the two assessment criteria – responding to the question in relation to the <u>extract only</u>. They will be assessed for AO1, AO2 and AO3.</p> <p>End of topic assessment: Full exam response/essay on an unseen extract from the full play, addressing both of the assessment criteria – responding to the question in relation to both extract and whole text. They will be assessed on AO1, AO2 and AO3.</p>
<p>Spring 2 (6 weeks)</p>	<p>'Macbeth'  (Shakespeare play – AQA Literature Paper 1)  PPE Exams  (AQA Language Paper 2 Revision and Assessment)</p>	<p>Students will start the term by completing and consolidating their learning of the Shakespeare play (see Spring 1 for Knowledge and Skills taught), before revisiting their prior learning from Year 10 of the AQA Language Paper 2, which will be assessed in the PPE Exam series.</p> <p>AQA Language Revision:</p> <p>Students will explore a variety of non-fiction text types from the 19th, 20th and 21st centuries, analysing how writers use language, structure and form to share ideas.</p> <p>As part of this revision, students will:</p>	<p>Student will return to and refine their skills of:</p> <ul style="list-style-type: none"> <li>- knowing how to read in an active way</li> <li>- understanding the TAP of a text: type, audience and purpose</li> <li>- being able to locate key pieces of information</li> <li>- knowing how to summarise differences between texts and synthesise information;</li> <li>- knowing how to analyse language choices in a text;</li> </ul>	<p>SPR2 PPE Exams (Dates TBC): Students will complete a full AQA Language Paper 2 in exam conditions, as well as a full Shakespeare's 'Macbeth' response. These will be completed within the school's mock exam window, and will be in controlled conditions.</p>

		<ul style="list-style-type: none"> <li>- Identify and interpret explicit and implicit information and ideas (AO1); Synthesise explicit and implicit information (AO1); Explain, comment and analyse the use of language (AO2); Compare writers' ideas and how they are conveyed (AO3); Communicate clearly and organise information (AO5); use a range of punctuation and vocabulary (AO6).</li> </ul>	<ul style="list-style-type: none"> <li>- knowing how to identify mood and tone in a text, including humour and sarcasm;</li> <li>- knowing how to identify and compare viewpoints and perspectives;</li> <li>- using quotations to support: varying length and being judicious;</li> <li>- knowing how to write letters, articles, speeches, leaflets etc. with a clear viewpoint</li> <li>- writing with a range of sentence structures and punctuation to create nuance;</li> <li>- knowing how to write in clearly linked paragraphs;</li> <li>- knowing how to plan appropriately, in accordance with the specified text type in Section B.</li> </ul>	
<p>Summer Term</p>	<p style="text-align: center;">GCSE Exams begin.</p> <p style="text-align: center;">Revision will take place in class, recapping and revisiting knowledge and skills in order to suit the scheduling of exams within the AQA exam timetable.</p>			

**Year 11: Food Preparation and Nutrition.**

**Cultural capital/enrichment** – In Year 11 pupils will act as Food Tech ambassadors. Pupils will take part in Careers day for this subject.

Half term	Topic	Key knowledge: <i>WJEC Eduqas Food Preparation and Nutrition.</i>	Key skills I will learn in this topic:	Assessment opportunities (Summative and formative) Key pieces
Autumn and 2	<b>NEA assessments</b>	<p>Pupils will understand the requirements of the Year 11 course including:</p> <ul style="list-style-type: none"> <li>• food investigation task • food preparation task • final exam. (This is not included in time allowed for NEA1)</li> </ul> <p>Understand the requirements of the food investigation task including:</p> <ul style="list-style-type: none"> <li>• research, plan and carry out an investigation into the working characteristics, functional and chemical properties of ingredients</li> <li>• record the investigation findings</li> <li>• analyse and evaluate results</li> <li>• present the food investigation task.</li> </ul> <p><b>For this task students will:</b></p> <p>Develop research skills to gather and use primary and secondary sources of information.</p> <p>Develop analysis and evaluation skills and explain how findings will influence practical investigations.</p> <p>Develop investigation skills into the working characteristics, functional and chemical properties of ingredients as identified in research findings.</p>	<p>Pupils will be able to:</p> <p>Select their chosen task</p> <p>Identify key points to address from the task</p> <ul style="list-style-type: none"> <li>• analysis of chosen task</li> <li>• generate a list or mind map of the research needed to be carried out before commencing practical investigations</li> <li>• Write up what they already know about this task using year 10 notes.</li> <li>• identify secondary sources of research that could be used to gather information or data</li> </ul> <p>-secondary research: textbooks, websites, multimedia including animations, YouTube clips, TV programmes, prior knowledge, magazines, newspaper articles, leaflets, food labels and packaging etc.</p> <ul style="list-style-type: none"> <li>• all research must include:</li> <li>• Write a clear aim that is focused and relevant to task</li> <li>• Gather relevant sources of information from a variety of secondary methods of research</li> <li>• Analysis, conclusions and summary of findings to include their previous knowledge.</li> <li>• Explanation of how findings may influence practical investigations</li> <li>• Plan for the practical investigations related to the research</li> <li>• Write a clear and focused hypothesis or prediction</li> <li>• a record of all sources to record in a bibliography at the end of the report.</li> </ul> <ul style="list-style-type: none"> <li>• Use plan to carry out a wide range of appropriate practical investigations, linking directly to hypothesis/ prediction</li> <li>• Work under controlled conditions to undertake the practical investigations.</li> <li>• Take essential control checks to ensure fair testing using their plan</li> <li>• Take photographs at each stage of the investigation showing method and results. These must be authenticated with labels including student's full name.</li> <li>• Gather data using pre-prepared sheets and equipment based on their chosen tests.</li> <li>• Add data and photos to work which should be annotated</li> <li>• Write analysis and evaluation to include:</li> </ul>	<p>Assessment opportunities are provided through:</p> <ul style="list-style-type: none"> <li>*Quick quizzes</li> <li>*Practice exam questions</li> </ul> <p>Literacy task – Answering open response exam question</p> <p>Spelling bees</p>

	<p><b>Focused Revision for winter exam</b></p>	<p>Develop analyse and interpret the results of investigative work.</p> <p>Further develop revision skills</p>	<p>-detailed analysis of all results and interpretation of findings for all investigative work          -written conclusions with justification of findings as a result of carrying out the practical investigations          •Detailed explanation and evaluation of results and findings. (To include evaluation of the how successful the investigation was, the effectiveness of control checks to ensure fair testing, the success of the investigations at proving predictions/hypothesis.</p> <p>Use different techniques to revise for exam.          Practice answer different exam questions using a range of command terms:          Identify</p>	<p>Peer assessment          After assessed exam paper completed student carry out DIRT</p>
<p>oring 1          d 2</p>	<p><b>NEA2</b></p>	<p>Understand the requirements of the food preparation task including:</p> <ul style="list-style-type: none"> <li>• analyse a task and carry out research</li> <li>• demonstrate a range of technical skills</li> <li>• Justify and plan a final menu</li> <li>• prepare, cook and serve three dishes in a three 3hour session</li> <li>• analyse and evaluate final menu</li> </ul>	<ul style="list-style-type: none"> <li>-Plan and carry out research into chosen task.</li> <li>-Research to gather and use primary and secondary sources of information for the chosen task.</li> <li>-Analysis and evaluation skills for research gathered.</li> <li>-Explain how findings will influence practical investigations.</li> <li>-Write up research in a concise and effectively communicated portfolio of work.</li> <li>-Plan relevant and appropriate practical activities.</li> <li>-Justify final three dishes to make</li> <li>-Make the three dishes with suitable accompaniments (3hrs)</li> <li>-Analyse and evaluate what was made based on the task</li> </ul> <p><b>Analysis</b> of chosen task and identification of what the task requires and involves.</p> <p><b>Research</b></p> <ul style="list-style-type: none"> <li>-identification of relevant primary and secondary sources of research that could be used to gather information or data</li> <li>- gathering data from primary sources/information that has not been generated by other people, eg survey, interview, market research, menu analysis, existing product testing or questionnaire</li> <li>- gathering data from secondary sources including textbooks, websites, YouTube, TV programs, previous knowledge, magazines,</li> </ul>	

			<p>newspaper articles, leaflets, food labels and packaging vits to restaurants and cafes etc.</p> <p>-summarise research of findings and say how they may influence practical activities.</p> <p><b>Demonstrate technical skills</b></p> <p>-make 6 dishes as part of the research</p> <p>-evaluate dishes made to help decide on final practical.</p> <p><b>Justify</b></p> <p>-Give reasons for practical decisions based on research findings.</p> <p><b>Planning</b></p> <p>-Write a time plan for three hours to be used for making 3 dishes and suitable accompaniment</p> <p><b>Demonstrate technical making skills for final</b></p> <p>Make dishes planned</p> <p><b>Evaluate</b></p> <p>-Evaluate final practical</p>	
summer and 2	<b>Revision and exam</b>	<p>The following will be covered in this period:</p> <p>Complete Food provenance unit</p> <ul style="list-style-type: none"> <li>• how the written exam is organised</li> <li>• how to prepare for the written exam</li> <li>• the command words used in written exam</li> <li>• the types of questions that will be asked in a written exam including:</li> </ul>		<p>*Practice exam questions</p> <p>Literacy task – Answering open response exam question</p> <p>Spelling bees</p> <p>Peer assessment</p> <p>After assessed exam paper completed student carry out DIRT</p> <p>Teacher assess and feedback where marks are allocated and lost</p>



**Intent:** Geography at Sale High School is intended to provide a wealth of knowledge about the world both globally and just outside their window. Students will have the opportunity to explore a wide range of human and physical geography from urban environments and globalisation to ecosystems and coasts. Students will be encouraged to not only learn facts from local and global case studies, but to apply their own understanding and judgement, and at times debate critical issues in geography. From this we hope that each student can gain their own unique but well-informed understanding of the world around them.

In Year 11, students complete units across all three papers for their final examinations. They will learn about diverse environments, such as the hot deserts in Pakistan and rivers in the UK, as well as human features of the UK economy and Manchester as a key UK city, especially significant as it is best known by Sale High Students. By the end of Year 11 we want our students to knowledgeable about the world around them and have a deep understanding of the forces that govern their lives, so that they can empowered and contribute to their communities. We hope that our students feel fulfilled from their studies of Geography at Sale High School and that many of them will choose to study geography beyond high school, or at least to travel and have exciting experiences in the world beyond Greater Manchester.

**Why do I study Geography?**

- It helps me to understand the wider world.
- I can better appreciate diversity.
- I will become a global citizen who can make a positive change.

**Cultural capital/enrichment**

Fieldwork opportunities – Visit to Salford Quays in Year 10 highlights the change in industrial structure in the UK.  
 Read – *A Short History of Nearly Everything* by Bill Bryson, *Can We Protect People From Natural Disasters?* by Earth Debate, *No One Is Too Small To Make A Difference* by Greta Thunberg, *There Is No Planet B* by Mike Breners-Lee, *This is Planet Earth* by New Scientist  
 Watch – *Planet Earth – Hot Deserts* on BBC iPlayer, *Brassed Off* (cert 15) – industrial decline in the UK.  
 Do - Visit to a local woodland e.g. Delamere Forest to consider relationships between biotic and abiotic features. Local business (Stanley Green) and science parks (Waters Science Park) to consider how their features support the economic activities carried out.

Half term	Topic	Key knowledge	Key skills I will learn in this topic	Assessment opportunities (Summative and formative) Key pieces
-----------	-------	---------------	---------------------------------------	---

1	Paper 1 Section B Part ii: <b>The Living World - Hot Deserts</b>	<ul style="list-style-type: none"> <li>• The physical characteristics of a hot desert. The interdependence of climate, water, soils, plants, animals and people.</li> <li>• How plants and animals adapt to the physical conditions. Issues related to biodiversity.</li> <li>• A case study of a hot desert to illustrate: development opportunities in hot desert environments: mineral extraction, energy, farming, tourism. Challenges of developing hot desert environments: extreme temperatures, water supply, inaccessibility.</li> <li>• Causes of desertification – climate change, population growth, removal of fuel wood, overgrazing, over-cultivation and soil erosion.</li> <li>• Strategies used to reduce the risk of desertification – water and soil management, tree planting and use of appropriate technology.</li> </ul>	<ul style="list-style-type: none"> <li>• Latitude</li> <li>• Analysing photographs</li> <li>• Choropleth maps</li> <li>• Atlas maps – location of Thar Desert</li> </ul>	<ul style="list-style-type: none"> <li>• Exam practise done in class based on: <ul style="list-style-type: none"> <li>○ Adaptations in the hot desert</li> <li>○ Preventing desertification.</li> </ul> </li> <li>• Half term summative assessment consisting of a range of knowledge, skill and extended writing sections from AQA past papers.</li> </ul>
1	Paper 2 Section A Part ii <b>A UK City – Manchester</b>	<ul style="list-style-type: none"> <li>• Overview of the distribution of population and the major cities in the UK.</li> <li>• Illustrate the location and importance of <b>Manchester</b> in the UK and the wider world; and impacts of national and international migration on the growth and character of the city.</li> <li>• How urban change has created social and economic opportunities in Manchester: cultural mix, recreation and entertainment, employment, integrated transport systems.</li> <li>• How urban change has created environmental opportunities in Manchester: urban greening</li> <li>• How urban change has created social and economic challenges in Manchester: urban deprivation, inequalities in housing, education, health and employment</li> <li>• How urban change has led to environmental challenges: dereliction, building on brownfield and greenfield sites, waste disposal</li> <li>• The impact of urban sprawl on the rural–urban fringe, and the growth of commuter settlements, such as <b>Sale</b>.</li> <li>• An example of an urban regeneration project (<b>Salford Quays</b>) to show: reasons why the area needed regeneration • the main features of the project.</li> <li>• Features of sustainable urban living in <b>Freiburg, Germany</b>: water and energy conservation, waste recycling, creating green space.</li> <li>• How urban transport strategies are used to reduce traffic congestion in <b>Freiburg</b>.</li> </ul>	<ul style="list-style-type: none"> <li>• Use of qualitative and quantitative data.</li> <li>• Use of OS maps – inferring human activity from evidence, identifying locations from photographs, labelling, four and six-figure grid references.</li> </ul>	<ul style="list-style-type: none"> <li>• Exam practise done in class based on: <ul style="list-style-type: none"> <li>○ The significance of challenges in Manchester</li> <li>○ Features of sustainable cities</li> </ul> </li> <li>• Winter Exam consisting of a range of knowledge, skill and extended writing sections from AQA past papers.</li> </ul>
2	Paper 1 Section A Part ii <b>Weather Hazards and Climate Change</b>	<ul style="list-style-type: none"> <li>• General atmospheric circulation model: pressure belts and surface winds.</li> <li>• Global distribution of tropical storms (hurricanes, cyclones, typhoons). An understanding of the relationship between tropical storms and general atmospheric circulation.</li> <li>• Causes of tropical storms and the sequence of their formation and development. The structure and features of a tropical storm.</li> </ul>	<ul style="list-style-type: none"> <li>• Latitude and longitude</li> <li>• Diagrams</li> <li>• Satellite images</li> <li>• Magnitude and frequency</li> </ul>	<ul style="list-style-type: none"> <li>• Exam practise done in class based on: <ul style="list-style-type: none"> <li>• The impacts of tropical storms</li> <li>• The causes of climate change</li> </ul> </li> </ul>

		<ul style="list-style-type: none"> <li>• How climate change might affect the distribution, frequency and intensity of tropical storms.</li> <li>• Primary and secondary effects of tropical storms. Immediate and long-term responses to tropical storms. Use a named example of a tropical storm to show its effects and responses.</li> <li>• How monitoring, prediction, protection and planning can reduce the effects of tropical storms.</li> <li>• An overview of types of weather hazard experienced in the UK.</li> <li>• An example of a recent extreme weather event in the UK to illustrate: causes, social, economic and environmental impacts, how management strategies can reduce risk.</li> <li>• Evidence that weather is becoming more extreme in the UK. Evidence for climate change from the beginning of the Quaternary period to the present day.</li> <li>• Possible causes of climate change: natural factors – orbital changes, volcanic activity and solar output. Human factors – use of fossil fuels, agriculture and deforestation.</li> <li>• Overview of the effects of climate change on people and the environment.</li> <li>• Managing climate change: mitigation – alternative energy production, carbon capture, planting trees, international agreements. Adaptation – change in agricultural systems, managing water supply, reducing risk from rising sea levels.</li> </ul>	<ul style="list-style-type: none"> <li>• Qualitative and quantitative data</li> <li>• Line graphs</li> </ul>	<ul style="list-style-type: none"> <li>• Half-term summative assessment consisting of a range of knowledge, skill and extended writing sections from AQA past papers.</li> </ul>
3	<p>Paper 2 Section B</p> <p>Part ii:</p> <p><b>The Changing Economic World – The UK Economy</b></p>	<ul style="list-style-type: none"> <li>• Economic futures in the UK: causes of economic change: deindustrialisation and decline of traditional industrial base, globalisation and government policies.</li> <li>• Moving towards a post-industrial economy: development of information technology, service industries, finance, research, science and business parks.</li> <li>• Impacts of industry on the physical environment. An example of how modern industrial development can be more environmentally sustainable</li> <li>• Social and economic changes in the rural landscape in one area of population growth and one area of population decline.</li> <li>• Improvements and new developments in road and rail infrastructure, port and airport capacity.</li> <li>• The north–south divide. Strategies used in an attempt to resolve regional differences the place of the UK in the wider world.</li> <li>• Links through trade, culture, transport, and electronic communication. Economic and political links: the European Union (EU) and Commonwealth.</li> </ul>	<ul style="list-style-type: none"> <li>• Line graph and pie chart analysis</li> <li>• Aerial photographs along with OS maps (location of science and business parks)</li> </ul>	<ul style="list-style-type: none"> <li>• Exam practise done in class based on:</li> <li>• Industry becoming more sustainable</li> <li>• The north-south divide</li> <li>• PPE / Summer Exam consisting of a range of knowledge, skill and extended writing sections from AQA past papers.</li> </ul>



3	Paper 1 Section C Part ii <b>UK Landscapes – Rivers</b>	<ul style="list-style-type: none"> <li>• The long profile and changing cross profile of a river and its valley.</li> <li>• Fluvial processes: erosion – hydraulic action, abrasion, attrition, solution, vertical and lateral erosion. Transportation – traction, saltation, suspension and solution. Deposition – why rivers deposit sediment.</li> <li>• Characteristics and formation of landforms resulting from erosion – interlocking spurs, waterfalls and gorges. Characteristics and formation of landforms resulting from erosion and deposition – meanders and ox-bow lakes. Characteristics and formation of landforms resulting from deposition – levées, flood plains and estuaries.</li> <li>• <b>The River Tees</b> – identifying its major landforms of erosion and deposition.</li> <li>• How physical and human factors affect the flood risk – precipitation, geology, relief and land use.</li> <li>• The use of hydrographs to show the relationship between precipitation and discharge.</li> <li>• The costs and benefits of the following management strategies: hard engineering – dams and reservoirs, straightening, embankments, flood relief channels. Soft engineering – flood warnings and preparation, flood plain zoning, planting trees and river restoration.</li> <li>• Flood management scheme in <b>Banbury</b> to show: why the scheme was required, the management strategy, the social, economic and environmental issues.</li> </ul>	<ul style="list-style-type: none"> <li>• OS map analysis and describing river features on OS maps</li> <li>• Drawing and annotating diagrams</li> <li>• Cost-benefit analysis</li> <li>• Using key terms</li> <li>• Photograph analysis</li> <li>• Use of bivariate data, interpolate and extrapolate.</li> <li>• Use of measures of central tendency.</li> </ul>	<ul style="list-style-type: none"> <li>• Exam practise done in class based on: <ul style="list-style-type: none"> <li>○ River landforms</li> <li>○ Engineering to prevent flooding</li> </ul> </li> <li>• PPE / Summer Exam consisting of a range of knowledge, skill and extended writing sections from AQA past papers.</li> </ul>
5	Paper 3 Section A: <b>Issue Evaluation – released in March 2024</b>	<ul style="list-style-type: none"> <li>• Students will study a pre-release resource booklet that contains information about a geographical issue. The content of the Issue Evaluation is released in March of the exam year. Topics are based on an aspect of the specification that is a compulsory unit. Students will conduct analytical tasks relating to the information in the pre-release booklet. They will consider different opinions relating to the geographical issue being addressed and will apply their geographical understanding. Students are likely to complete a decision-making exercise where they will decide on the best course of action to deal with the geographical issue.</li> </ul>	Likely skills include: <ul style="list-style-type: none"> <li>• Statistical analysis</li> <li>• Understanding different types of maps</li> <li>• OS maps – scale, distance, grid references</li> <li>• calculating averages</li> <li>• Graph analysis</li> <li>• Cost-benefit analysis</li> </ul>	<ul style="list-style-type: none"> <li>• Exam practise done in class based on:</li> <li>• The likely 6 mark and 9 mark questions based on the content of the issue.</li> </ul>
6	Exam Preparation	<ul style="list-style-type: none"> <li>• Use of question level analysis to provide bespoke revision lessons for each class, covering the full range of topics from Papers 1-3.</li> </ul>	Coverage of all skills in specification: <ul style="list-style-type: none"> <li>• Geographical</li> <li>• Cartographic</li> <li>• Graphical</li> <li>• Numerical</li> <li>• statistical</li> </ul>	



**Intent:**  
 BTEC Health and Social Care is a qualification that gives learners the opportunity to build applied knowledge and skills that show an aptitude for further learning, both in the sector and more widely. The courses content included coursework with a final external assessment at the end of year 11. The course is proven to be successful in building applied knowledge and skills and motivating learners to engage fully with challenging study. There are many progression options as the skills acquired are applicable to a range of post-16 study options.

**Why I study Health & Social?**  
 Students opt for BTEC Health and Social Care as it is an engaging and fun topic for them to learn. They will look into each life stage and how PIES (physical, intellectual, emotional, social) interlinks. The course provides them with real-world experiences, enhancing their skills, understanding whilst also nurturing their personal growth. It equips them for a range of in-demand careers in healthcare and social services, making it a pathway to meaningful work and professional development that caters to individuals' comprehensive well-being.

**I learn Health & Social because:**

- I learn more about well-being, physical, and mental health
- It gives me an insight into health professions
- It will improve my ability to care for others

Half term	Topic	Key knowledge	Key skills I will learn in this topic	Assessment opportunities (Summative and formative) Key pieces
Autumn 1 & 2	Component 2	Non-exam internal assessment set by Pearson, marked by the centre and moderated by Pearson. The Pearson-set Assignment will be completed under supervised assessment, in class.	Students will use their previous knowledge from Summer 1 & 2 to complete their component 2 coursework which will go towards their final grade.	Assessment opportunities are provided through hands down questioning, discussions, brain storming, spider diagrams, quizzes, verbal

			<p>The coursework will cover factors, barriers and services. As well as how services can be used to help a patient or overcome a barrier.</p> <p>Students are given a long period of time, due to be given the opportunity to re-submit their coursework and work on feedback given by the teacher to improve their work.</p>	<p>feedback, self and peer assessment.</p>
Spring 1 & 2	<p>Preparation for Component 3 exam</p> <p>Resists for Component 1 or 2 (certain students)</p>	<p>Factors affecting health and wellbeing Physical, lifestyle, social, cultural, economic, environmental.</p> <p>Interpreting health indicators Physiological, lifestyle indicators</p> <p>Person-centred approach to improving health and wellbeing</p> <p>Recommendations and actions to improve health and wellbeing</p> <p>Barriers and obstacles to following recommendations</p>	<p>Learners will explore how factors can affect an individual's health and wellbeing positively or negatively. This links to and extends knowledge and understanding of human lifespan development including life events, covered in Component 1.</p> <p>Here, however, the focus is on the current health and wellbeing of individuals.</p>	<p>Components 1 is assessed through non-exam internal assessment. The non-exam internal assessment for these components has been designed to demonstrate application of the conceptual knowledge underpinning the sector through realistic tasks and activities. This style of assessment promotes deep learning through ensuring the connection between knowledge and practice.</p>
Summer1	Component 3	<p>External assessment set and marked by Pearson, completed under supervised conditions.</p> <p>The assessment will be completed in 2 hours within the period timetabled by Pearson – <b>May/June series</b></p>	<p><b>Component 3 exam will be made up of topics covered in Component 1 &amp; 2:</b></p> <p>A1: Human growth and development across life stages</p> <ul style="list-style-type: none"> <li>● A2: Factors affecting growth and development</li> <li>● B1: Different types of life event</li> </ul>	<p>2 hour exam, under supervised conditions.</p>

			<ul style="list-style-type: none"> <li>● B2: Coping with change caused by life events</li> </ul> <p>Component 2: Health and Social Care Services and Values</p> <ul style="list-style-type: none"> <li>● A3: Barriers to accessing services</li> <li>● B1: Skills and attributes in health and social care</li> <li>● B2: Values in health and social care</li> <li>● B3: The obstacles individuals requiring care may face</li> </ul>	
Summer2	Component 1 & Component 2	Resubmission Of Any Coursework	<ul style="list-style-type: none"> <li>● How to improve coursework</li> <li>● Using feedback to improve work</li> </ul>	Assessment Conditions During Moderation



**Intent:**

Within the Humanities department History is an essential subject in order to understand the world we currently live in and the consequences of past events that have shaped present day life. In History there are opportunities for students to develop their literacy and oracy when discussing historical matters such as the causes of events or the significance of important individuals. Learners will be able to analyse and evaluate evidence in order to form their own judgements. This provides pupils with knowledge of the past as well as the skills to construct their own well evidenced arguments on a range of issues.

Our aim is to deliver a broad and ambitious History curriculum, rich in knowledge and disciplinary skills, which immerses students in a range of cultures and develops an enquiring and critical outlook on the world. Our curriculum reflects the complexity and diversity of the past, by exploring a range of different individuals and experiences. Students are able to place their own experiences and identity within the history of the local community, Britain and the wider world. History is important because it enables our students to understand the past and use that knowledge to make informed judgements about the present. Our curriculum is mapped out chronologically from migration pre 1066 to the present day.

**Year 11** – Learners have completed AQA Paper 1 in Year 10 so now we continue our study of GCSE history by Paper 2. We begin the year with a depth study of Elizabethan England with a particular 35-year focus on 1568-1603. Learners analyse the major events of Elizabeth I’s reign from economic, religious, political, social and cultural standpoints. They will examine how a single female ruler was able to shape England and endure various challenges from home and abroad. Learners will examine a site study linked to Elizabethan England and consider how this historic environment demonstrates certain values from the time period (e.g. the importance of the gentry, Christian attitudes towards the poor, the achievements of English sailors and privateers).

In the second half of year 11 we conclude our study of GCSE History with our breadth study on the themes of migration and empire. This thematic study will enable students to gain an understanding of how the identity of the people of Britain has been shaped by their interaction with the wider world. We study invasions and conquests, the country's changing relationship with Europe and the wider world, the ebb and flow of peoples into and out of Britain and evaluate their motives and achievements. We explore the causes, impact and legacy of Empire as it rises to power and as it eventually crumbles in the 21<sup>st</sup> century. Learners will examine how the importance of factors (war, new discoveries, economic resources, religion, government and individuals) have influenced Britain’s dealings with the wider world.

**Why I study History?**

**I study History because:**

- **It helps me to develop a clear sense of identity**
- **I will appreciate the accomplishments of previous generations**
- **Learning from the past helps create a better future**

**Cultural capital/enrichment**

History provides opportunities for debate and expression of opinion over a variety of issues. Students may explore the role of causes or the significance of consequences and will learn how to apply historical evidence into their own explanations. In order to do this we encourage a wide range of knowledge and experience in order to support them. Sale High School provides Year 11s with a trip to the International Slavery Museum in Liverpool. This is an important site as it links to both our Year 11 GCSE topics as we consider the origins in the 16<sup>th</sup> century, the ongoing social and economic effects of the slave trade, and the British Empire’s legacy and role in being

heavily involved and eventually policing and stopping the slave trade. No additional school trips are provided in Year 11 and this is because we feel it is important for learners to be in the classroom during this critical point of their GCSE study and revision. This is to allow them to practice exam skills and gain in-depth knowledge on their assessed topics. Period 6 is utilised to revise topics from Year 10 and to prepare for imminent assessments. Students are also able to access History Catch Up Club in order to recap on studied topics in greater detail and in order to support them in their final year of history. Pupils are encouraged to access age-appropriate media in order to develop their contextual knowledge and to build a deeper understanding of the periods of history being studied. Online channels such as Simple History and Ten Minute History can also bolster classroom knowledge. Websites like BBC Bitesize will often provide content linked to our studied topics and can be utilised as a revision aid. Study Rocket provides information linked to our migration topic. SENeca learning provides AQA History specific content which supports learning on our course.

Half term	Topic	Key skills I will learn in this topic	Key knowledge	Assessment opportunities (Summative and formative) Key pieces
Autumn 1	Elizabethan England (Elizabethan and her government, Life in Elizabethan times)	<p>Students will be able to:</p> <ul style="list-style-type: none"> <li>Describe in a chronological narrative the key events of Elizabeth's reign with a secure understanding of cause, development and consequence</li> <li>Examine the content and provenance of an interpretation and determine if it is convincing by utilising contextual knowledge</li> </ul>	<p>Students will know</p> <ul style="list-style-type: none"> <li>The history of Elizabeth I from disinherited child to Virgin Queen of England</li> <li>The core features of Elizabethan government such as the role of the privy council, patronage and parliament</li> <li>The difficulties Elizabeth faced as a female ruler such as the succession crisis</li> <li>Arguments for Elizabethan England being a "Golden Age" (e.g. theatre, rise of the gentry)</li> <li>Arguments against Elizabethan England being a "Golden Age" (e.g. the growing poverty crisis, involvement in the Transatlantic Slave Trade)</li> </ul>	<p>Quizzes (in class and homework)</p> <p>Extended writing and practice questions (classwork and homework)</p> <p>Mid-Unit Assessment on Elizabethan theatre</p>
Autumn 2	Elizabethan England (Troubles at home and abroad, site study)	<p>Students will be able to:</p> <ul style="list-style-type: none"> <li>Explain the importance of events/individuals/issues in Elizabethan England by considering wider social, political and economic consequences</li> <li>Analyse our historical site study and evaluate the factors at play in the function and structure of the site or the individuals and events attributed to the historical site</li> <li>Describe Elizabeth I's reign in detail with consideration towards governance, society and crises that she resolved</li> </ul>	<p>Students will know</p> <ul style="list-style-type: none"> <li>The religious matters which threatened Elizabeth I's reign (e.g. Catholic plots, Elizabeth's excommunication by Pope Pius V, Puritan challenges)</li> <li>The political matters which threatened Elizabeth I's reign (e.g. Mary, Queen of Scots)</li> <li>England's conflict with Spain and how naval warfare was conducted in the 16<sup>th</sup> Century</li> <li>The historic environment of Elizabethan England with one specific site study (specific site changes annually)</li> </ul>	<p>Quizzes (in class and homework)</p> <p>Extended writing and practice questions (classwork and homework)</p> <p>End-Unit assessment on Elizabeth's early life, revisiting of Conflict and Tension exam questions.</p> <p>November PPE</p>

Spring 1	Migration, Empires and the People (Conquered and conquerors, Looking west)	<p>Students will be able to:</p> <ul style="list-style-type: none"> <li>• Explain significance over time by comparing the contemporary impact of an event/individual/migrant group with how they later affected history</li> <li>• Analyse historical sources by examining their content and provenance thoroughly and explaining their utility to a historian</li> <li>• Describe migrant groups who immigrated to or emigrated from Britain from the late 8<sup>th</sup> Century to the late 18<sup>th</sup> Century</li> </ul>	<p>Students will know</p> <ul style="list-style-type: none"> <li>• Key migrant groups who emigrated from or immigrated to the British Isles (e.g. Vikings, Normans, Huguenots) from the 8<sup>th</sup> Century to the 18<sup>th</sup> Century</li> <li>• Early empires that pre-dated the British Empire (e.g. North Sea, Angevin) and the origins and developments of the British Empire from the 16<sup>th</sup> Century to the 18<sup>th</sup> Century</li> <li>• Medieval and Early Modern conflicts and developments that had a lasting impact on British history at home and abroad (e.g. the Norman conquest, signing of the Magna Carta, the loss of the Hundred Years' War)</li> </ul>	<p>Quizzes (in class and homework)</p> <p>Extended writing and practice questions (classwork and homework)</p> <p>Mid-Unit Assessment on Vikings</p> <p>Mid-Unit Assessment on privateers</p>
Spring 2	Migration, Empires and the People (Expansion and empire, Britain in the twentieth century)	<p>Students will be able to:</p> <ul style="list-style-type: none"> <li>• Compare the similarities between events/individuals/migrant groups in history from differing time periods</li> <li>• Evaluate the factors which have influenced migration and empire since c793 and analyse why these factors become more or less important over time</li> <li>• Describe migrant groups who immigrated to or emigrated from Britain from the late 18<sup>th</sup> Century to the present day</li> </ul>	<p>Students will know</p> <ul style="list-style-type: none"> <li>• Key migrant groups who emigrated from or immigrated to the British Isles (e.g. Jewish migrants, the Windrush generation, Eastern European migrants) after the 18<sup>th</sup> Century</li> <li>• The history of the British Empire after the 18<sup>th</sup> Century, including how it reached its peak during the early 20<sup>th</sup> Century with case studies such as India, South Africa and Egypt</li> <li>• Modern conflicts and developments that had a lasting impact on British history at home and abroad (e.g. the Boer Wars, decolonisation, the Falklands War, Britain's relationship with the EU)</li> </ul>	<p>Quizzes (in class and homework)</p> <p>Extended writing and practice questions (classwork and homework)</p> <p>Mid-Unit Assessment on British Empire in India and America</p> <p>Mid-Unit Assessment on factors for migration</p> <p>End-Unit assessment on Hundred Years War, factors for downfall of empire</p> <p>March PPE</p>
Summer 1	Revision / GCSE Exam period	<p>Students will be able to:</p> <ul style="list-style-type: none"> <li>• Confidently recall the knowledge from Year 10 and Year 11 GCSE in revision tasks</li> <li>• Apply their understanding into exam style questions in order to practice before their real GCSEs this term</li> </ul>	<p>Students will know</p> <ul style="list-style-type: none"> <li>• Paper 1 topics in detail (Conflict &amp; Tension 1918-39, Germany) for their first exam</li> <li>• The skills required to access Paper 1</li> <li>• Paper 2 topics in detail (Migration, empires and the people, Elizabethan England) for their second exam</li> <li>• The skills required to access Paper 2</li> </ul>	<p>Quizzes (in class and homework)</p> <p>Extended writing and practice questions (classwork and homework)</p>

Summer 2	GCSE Exam period			
----------	------------------	--	--	--





### **Intent:**

The Sale High Mathematics department will provide lessons which are both challenging and stimulating. Our aim is for all students to enjoy mathematics and to achieve their potential. A variety of teaching styles cater for all students' learning needs and staff are always available to support all students both in and out of the classroom. There are ample opportunities for students to learn maths in a variety of enriching ways including after school clubs and entering national competitions. Students who wish to go beyond the National Curriculum will be able to Study Level 2 further mathematics.

The combination of developing fluency and mathematical understanding in tandem will enable students to use their learning accurately, efficiently and flexibly to reason mathematically and solve routine and non-routine problems, so meeting the aims of the national curriculum and GCSE AQA Mathematics specification. It will enable students to solve problems efficiently in later life and students who pursue further studies in mathematics will have sufficient breadth and depth to enable success.

### **Why I study Maths?**

"I learn mathematics because:

- It helps me solve everyday problems,
- Improves my communication skills,
- Make me better at managing my money,
- Opens up more future career options."

### **Cultural capital/enrichment**

Mathematics is a creative and highly inter-connected discipline that has been developed over centuries, providing the solution to some of history's most intriguing problems. It is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. A high-quality mathematics education therefore provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject.

In year 11 we allow any student who wishes to be considered for entry to level 2 further maths.

Half term	Topic	Key skills I will learn in this topic	Key knowledge	Assessment opportunities (Summative and formative) Key pieces
Autumn 1	Handling data	Students will be able to: <ul style="list-style-type: none"> <li>• Finding averages from a grouped frequency table</li> <li>• Draw and interpret a cumulative frequency chart</li> <li>• Draw and interpret a box plot</li> <li>• Draw and interpret a scatter graphs</li> <li>• Draw and interpret a time series line graph</li> <li>• Draw a line of best fit</li> </ul>	Students will know <ul style="list-style-type: none"> <li>• How to identify correlation</li> </ul>	Key skills KS4 starter booklet  End of topic reviews  Base line assessment  Marked piece  GCSE practice papers
	Calculations	Students will be able to: <ul style="list-style-type: none"> <li>• Simplify and evaluate negative and fractional indices</li> <li>• Perform exact calculations in terms of pi</li> <li>• Perform exact calculations involving fractions</li> <li>• Convert to and from standard form.</li> <li>• Perform operations in standard form.</li> </ul>	Students will know <ul style="list-style-type: none"> <li>• All the rules of indices</li> <li>• The rules about standard form.</li> </ul>	Key skills KS4 starter booklet  End of topic review  Spelling Bee  GCSE practice papers

Autumn 2	Graphs	<p>Students will be able to:</p> <ul style="list-style-type: none"> <li>Plot cubic and reciprocal graphs</li> <li>Plot exponential and trigonometric graphs</li> <li>Plot real life graphs</li> <li>Find the gradients and area under the curve.</li> <li></li> </ul>	<p>Students will know</p> <ul style="list-style-type: none"> <li>How to recognise the equation of a circle.</li> </ul>	<p>Key skills KS4 starter booklet</p> <p>End of topic review</p> <p>GCSE practice papers</p>
	Pythagoras'	<p>Students will be able to:</p> <ul style="list-style-type: none"> <li>Find missing sides and angles on right angled triangles using Pythagoras', trigonometry or a combination of both.</li> <li>Apply the trigonometry in 3d and non-right-angled triangle.</li> </ul>	<p>Students will know</p> <ul style="list-style-type: none"> <li>The exact trigonometric values</li> <li>Pythagoras' theorem</li> <li>Pythagoras triples.</li> <li>Know the sine rule</li> <li>Know the cosine rule</li> <li>Know the area of a triangle rule</li> </ul>	<p>Key skills KS4 starter booklet</p> <p>End of topic review</p> <p>Marked piece</p> <p>Winter summative exam.</p>
Spring 1	Probability	<p>Students will be able to:</p> <ul style="list-style-type: none"> <li>Create probability space diagrams</li> <li>Construct and use probability tree diagrams.</li> </ul>	<p>Students will know</p> <ul style="list-style-type: none"> <li>Set notation</li> <li>How to find probabilities of two events.</li> <li>Understand conditional probability</li> </ul>	<p>Key skills KS4 starter booklet</p> <p>End of topic review</p> <p>Marked piece</p> <p>GCSE practice papers</p>
	Sequences	<ul style="list-style-type: none"> <li>Find the nth term of a linear sequence</li> <li>Find the nth term of a quadratic sequence</li> </ul>	<p>Students will know</p> <ul style="list-style-type: none"> <li>Special sequences</li> <li>Key sequence vocabulary</li> </ul>	<p>Key skills KS4 starter booklet</p> <p>End of topic review</p> <p>GCSE practice papers</p>

Spring 2	Units and proportionality	Students will be able to: <ul style="list-style-type: none"> <li>• Convert between different units of length, area and volume</li> <li>• Solve proportion using the constant of proportionality</li> <li>•</li> </ul>	Students will know <ul style="list-style-type: none"> <li>• Direct and inverse proportion</li> <li>• Growth and decay</li> <li>• Rates of change.</li> </ul>	Key skills KS4 starter booklet  End of topic review  Marked piece  GCSE practice papers
Summer 1	Topic revision	Students will consolidate any topics that have been identified from the December PPE or March PPE		



### Intent:

Our intent is to provide Sale High students with broad scope of knowledge that challenges the way students think about the arts and teaches them to accept and embrace difference. We want our students to be confident and understand how the arts can benefit all aspects of life such as promoting confidence and good communication skills. We want to teach them that creating safe and comfortable spaces where people of all backgrounds can make, celebrate and learn together is empowering. Students study a variety of musical styles, each leading to a music making experience, performance and evaluation. Students have the opportunity to sing and make music using a variety of instruments. Students build a valuable understanding of the elements of music such as melody, pitch, tone, texture, structure, dynamics, tempo and rhythm, including music notation.

Students gain knowledge of how music is created and recorded in different contexts. They are taught to understand the value of both traditional and contemporary styles and music for different occasions leading to a greater acceptance of these differences. Students are encouraged to improvise and understand that happy mistakes can lead to great work and changes of direction are not necessarily a bad thing. They experience working solo and in groups, understanding that both have merit and it is important to listen to the ideas of others to build work together – this promotes excellent communications skills. Students are encouraged to perform and evaluate work, focusing on specific skills, reflecting to improve future work.

### Why I study Music?

#### *I study Music because:*

- I can express myself creatively
- I experience music from other cultures
- It improves my memory, confidence and teamwork skills

### Cultural capital/enrichment

Performance/presentation skills – awareness of the audience, self-confidence, use of practical skills (e.g. open evening, Christmas concert and annual production)

Exploration of own thoughts and feelings through experiencing, discussing and performing a range of musical styles

Creative collaboration to develop working relationships outside of friendship groups

Giving/receiving constructive criticism about peer's performances

Composing and performing for audiences, considering the emotions they wish to portray

Considering the emotional support music can offer in day to day life

Extra-curricular musical groups and expressive arts company 'Platinum Stars' is an opportunity for students be part of a fun and safe environment for young people to experience creating and rehearsing theatre performance (including musical theatre) for a specific event e.g. Christmas Concert and annual production. The whole school production is a valuable experience for students to take part in a performance in a theatre, in front of a paying audience.

Half term	Topic	Key knowledge	Key skills I will learn in this topic	Assessment opportunities (Summative and formative) Key pieces
AUTUMN 1	Set work: Afro Celt – Release/ Composition 2/ Performance 2	<p><b>Students will know:</b>  The basic key vocabulary associated with all set works (MPRSTTTDHI – Melody, Pitch, Rhythm, Structure, Tonality, Timbre, Texture, Tempo, Dynamics, Harmony and Instrumentation) and use it in context when speaking about the set work.</p> <p>The specific vocabulary associated with ‘Release’.</p> <p>How to identify folk music and say how ‘Release’ utilises this.</p> <p>How to identify African, Irish and Electronic musical styles/equipment and recognise key elements of these genres in ‘Release’.</p> <p>How to identify modal music by ear and know the pentatonic scale</p> <p>The impact ‘Release’ has on the audience</p> <p>STROPHIC structure and be able to talk about the links with folk music.</p> <p>How to structure an effective compare/contrast answer to include clear two-part comments in order to cover both AO3 and AO4 criteria.</p>	<p><b>Students will be able to:</b>  Understand the timeline of work and assessments over the coming months leading to GCSE</p> <p>Understand why ‘Release’ is classed as fusion music and apply this knowledge to answer Listening and Appraising papers.</p> <p>Discuss a range of instruments and techniques linked with African, Irish and Electronic Dance music.</p> <p>Understand, in greater detail, the meaning of TEMPO and the more advanced vocabulary and techniques used in the set works</p> <p>Make an informed decision as to which brief to choose from the four options set by EDEXCEL.</p> <p>Continue to work toward their second performance piece.</p> <p>Improve the quality of their 12 mark answers for the compare/contrast section of the exam paper.</p>	<p>Section A exam style assessment</p> <p>AFL pack use (whiteboard, RAG etc.) for formative assessment.</p> <p>12 mark question papers</p> <p>Progress toward 2<sup>nd</sup> performance</p> <p>Progress toward composition 2</p>

<p style="text-align: center;">AUTUMN 2</p>	<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Set work: Spalding – Samba Em Preludio/ Continue Composition 2/ Focus on 12 mark question</p>	<p><b>Students will know:</b>  The key vocabulary associated with all set works (MPRSTTTDHI – Melody, Pitch, Rhythm, Structure, Tonality, Timbre, Texture, Tempo, Dynamics, Harmony and Instrumentation) and how to use it in context when speaking about the set work.</p> <p>The Jazz and Samba musical styles and how to recognise key elements of these genres in ‘Samba Em Preludio’.</p> <p>The impact ‘Samba’ has on the audience.</p> <p>The use of voice and guitar in comparison to previous pieces.</p> <p>The blues scale and associated harmonies including altered and extended chords</p> <p>How to improve composition 2 and performance 2</p>	<p><b>Students will be able to:</b></p> <p>Understand why ‘Samba Em Preludio’ is classed as fusion music and apply this knowledge to answer Listening and Appraising papers.</p> <p>Understand the context of ‘Samba Em Preludio’.</p> <p>Recall a range of instruments and techniques linked with Jazz and Samba music.</p> <p>Understanding HARMONY in greater depth using more advanced vocabulary to discuss their set works.</p> <p>Develop composition 2 from their chosen set brief.</p> <p>Improve their second performance piece.</p>	<p>Core analysis of ‘Samba’</p> <p>Whiteboard questioning</p> <p>Section A style question paper</p> <p>Mini question papers on key vocabulary</p> <p>Observations of group discussion work</p> <p>Year 11 exam based on set works covered so far, including dictation and 12 mark question paper</p> <p>Progress toward Composition 2</p> <p>Progress toward performance 2</p>
<p style="text-align: center;">SPRING</p>	<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Revising all set works/ Completion of composition 2 and performance 2</p>	<p><b>Students will know:</b></p> <p>How to approach each type of question, drilling down into specific genres and techniques and common misconceptions from previous exam papers.</p> <p>How to create revision techniques to pull together a selection of pieces under one umbrella e.g. Syncopation is used in five of the eight set works</p> <p>Key melody lines and rhythmic patterns for each piece and be able to apply these in melodic and rhythmic dictation exercises</p> <p>How to progress in their individual composition and performance pieces.</p>	<p><b>Students will be able to:</b></p> <p>Understanding of how all set works interlink with regard to skills and techniques.</p> <p>Answer a variety of exam-style question papers to prepare for final Listening and Appraising paper.</p> <p>Complete Composition 2</p> <p>Complete performance 2</p>	<p>Correction/ re-sit of winter exam</p> <p>Dictation exercises</p> <p>Whiteboard questioning</p> <p>Observations of group discussion work</p> <p>Composition 2</p> <p>Performance 2</p>

SUMMER 1	Revision of set works	<b>Students will know:</b>  The expectations from each section of the exam paper based on past paper experience.  How many marks they need to achieve on the final paper to surpass their expected grade and where their weaker areas are so plug any gaps.	<b>Students will be able to:</b>  Confidently approach the Listening and Appraising paper	Past papers
----------	-----------------------	---	---	-------------



## Curriculum Map Year 10/11: Core Physical Education



**Intent:** Students are encouraged to take greater ownership of their lessons in year 10 by allocating roles for students, including coach, manager, officials, equipment. It is an opportunity for staff and students to monitor and evaluate different aspects of physical education, including, team work, leadership, tactics and knowledge of health and fitness. Students are encouraged to discuss between them, how to create groups that would bring about fair and challenging opponents. Running PE in this way also pays attention to the social element of health, as connection with others is key. We still ensure that we encourage students to form good habits that will lead to lifelong enjoyment. However, the onus is certainly on the student to take charge of these lessons.

KS4 Activity blocks take place in 6 week blocks as opposed to the 4 week blocks in KS3. This is a reaction to student voice, which highlighted a preferred activity choice in which to focus and develop the areas mentioned above. Students take part in these activities with the key focus to provide students the opportunity to experience and enjoy activities with the hope that these will become a central part of their progression into adulthood. Activities will be more complex and demanding than in KS3 and promote an active, healthy lifestyle.

### Why I study Physical Education?

- I get to experience different sports
- It supports my physical, social and mental wellbeing
- It develops my confidence, leadership and teamwork skills

### Cultural capital/enrichment

- lunchtime and after school extra-curricular programme
- School teams and fixtures as part of the many Trafford Schools Leagues
- Inter-house competitions
- KS4 visit opportunity to the UA92 University
- Links to local clubs

Block 1 Boys	Topic	Key knowledge	Key skills I will learn in this topic	Assessment opportunities (Summative and formative) Key pieces

	Football	<p>How to perform a skill in a fully competitive situation and when to select the skill at the right time to have maximum impact.</p> <p>Linking physical activity and sport to health fitness and mental wellbeing</p> <p>Benefits of a warm up and cool down</p> <p>Officiating</p>	<p>Ball mastery</p> <p>Receiving and releasing</p> <p>Ball striking</p> <p>Creating and manipulating space</p> <p>Moving with the ball</p> <p>Attacking</p> <p>Defending</p> <p>Wing play</p> <p>Playing through midfield</p> <p>Press / Pass and move</p> <p>Switching play</p> <p>Implementation of skills into games</p>	<p>Heart – their ability to lead and make good, kind choices. We look for the students that want to help others and for those that are trying to build resilience in challenging situations, are fully equipped for each lesson and show effort and commitment each lesson.</p> <p>Verbal feedback will be given lesson by lesson and students who show high standards every lesson are rewarded</p>
	Basketball	<p>Tactical awareness in differing scenarios</p> <p>Problem solving</p> <p>Organising a game/tournament/team</p> <p>Regulating themselves as a team to ensure it is fair and equal</p> <p>How to assess their own strengths and weaknesses to ensure that practical improvement can still be made.</p>	<p>Passing</p> <p>Dribbling</p> <p>Movement</p> <p>Shooting</p> <p>Half-court defence</p> <p>Effective movement around the key</p> <p>Implementation of skills into games</p>	
Block 1 Girls	Topic	Key knowledge	Key skills I will learn in this topic	Assessment opportunities (Summative and formative) Key pieces
	Netball	<p>How to perform a skill in a fully competitive situation and when to select the skill at the right time to have maximum impact.</p>	<p>Footwork</p> <p>Passing</p> <p>Dribbling</p> <p>Movement</p> <p>Shooting</p> <p>Implementation of skills into games</p>	<p>Heart – their ability to lead and make good, kind choices. We look for the students that want to help others and for those that are trying to build resilience</p>

	HRF	Linking physical activity and sport to health fitness and mental wellbeing  Benefits of a warm up and cool down  Officiating	CV endurance Speed Muscular Strength Muscular Endurance Flexibility Agility Power	in challenging situations, are fully equipped for each lesson and show effort and commitment each lesson.  Verbal feedback will be given lesson by lesson and students who show high standards every lesson are rewarded
	OAA	Tactical awareness in differing scenarios  Problem solving  Organising a game/tournament/team	Training methods Fitness testing Heart Rate calculations	
	Football	Regulating themselves as a team to ensure it is fair and equal  How to assess their own strengths and weaknesses to ensure that practical improvement can still be made.		
Block 2 Boys	Topic	Key knowledge	Key skills I will learn in this topic	Assessment opportunities (Summative and formative) Key pieces
	Rugby	How to perform a skill in a fully competitive situation and when to select the skill at the right time to have maximum impact.  Linking physical activity and sport to health fitness and mental wellbeing  Benefits of a warm up and cool down	Grip and carry Ball handling Receiving and releasing Tackling Rucks Mauls Line-outs Switch/scissor pass Implementation of skills into games	Heart – their ability to lead and make good, kind choices. We look for the students that want to help others and for those that are trying to build resilience in challenging situations, are fully equipped for each lesson and show effort and commitment each lesson.
	Badminton	Officiating  Tactical awareness in differing scenarios	CV endurance Speed Muscular Strength Muscular Endurance	Verbal feedback will be given lesson by lesson and students who show high

	HRF	Problem solving Organising a game/tournament/team	Flexibility Agility Power Training methods	standards every lesson are rewarded
	OAA	Regulating themselves as a team to ensure it is fair and equal  How to assess their own strengths and weaknesses to ensure that practical improvement can still be made.	Fitness testing HR calculations	
Block 2 Girls	Topic	Key knowledge	Key skills I will learn in this topic	Assessment opportunities (Summative and formative) Key pieces
	Football	How to perform a skill in a fully competitive situation and when to select the skill at the right time to have maximum impact.  Linking physical activity and sport to health fitness and mental wellbeing	Selection of shots Movement around the court Service rules Doubles and singles tactics Front and back v Side by side	Heart – their ability to lead and make good, kind choices. We look for the students that want to help others and for those that are trying to build resilience in challenging situations, are fully equipped for each lesson and show effort and commitment each lesson.  Verbal feedback will be given lesson by lesson and students who show high standards every lesson are rewarded
	Lacrosse	Benefits of a warm up and cool down  Umpiring	Teamwork Map reading Compass work Problem solving Planning Designing routes Setting challenges	
	HRF	Tactical awareness in differing scenarios  Problem solving  Organising a game/tournament/team		
	Badminton	Regulating themselves as a team to ensure it is fair and equal  How to assess their own strengths and weaknesses to ensure that practical improvement can still be made.		
Block 3	Topic	Key knowledge	Key skills I will learn in this topic	Assessment opportunities

Boys				(Summative and formative) Key pieces
	Athletics	<p>How to perform a skill in a fully competitive situation and when to select the skill at the right time to have maximum impact.</p> <p>Linking physical activity and sport to health fitness and mental wellbeing</p>	<p>Sprinting Pacing Jumping Throwing Relay technique Competition technique Timing</p>	<p>Heart – their ability to lead and make good, kind choices. We look for the students that want to help others and for those that are trying to build resilience in challenging situations, are fully equipped for each lesson and show effort and commitment each lesson.</p> <p>Verbal feedback will be given lesson by lesson and students who show high standards every lesson are rewarded</p>
	Cricket	<p>Benefits of a warm up and cool down</p> <p>Umpire/Timer/Scorer</p> <p>Comparison of times/distance in relation to different events and records</p>	<p>Throwing Catching Batting Bowling Ground Fielding Rules and Regulations Implementation of skills into games</p>	
	Softball	<p>Tactical awareness in differing scenarios</p> <p>Problem solving</p> <p>Organising a game/tournament/team</p> <p>Regulating themselves as a team to ensure it is fair and equal</p> <p>How to assess their own strengths and weaknesses to ensure that practical improvement can still be made.</p>	<p>Throwing Catching with mitt Batting Bowling Ground Fielding Base running and tagging Rules and Regulations Implementation of skills into games</p>	
Block 3 Girls	Topic	Key knowledge	Key skills I will learn in this topic	Assessment opportunities (Summative and formative) Key pieces
	Athletics	<p>How to perform a skill in a fully competitive situation and when to select the skill at the right time to have maximum impact.</p>	<p>Sprinting Pacing Jumping Throwing Competition technique Relay technique</p>	<p>Heart – their ability to lead and make good, kind choices. We look for the students that want to help others and for those that are trying to build resilience</p>

	<p>Rounders</p> <p>Linking physical activity and sport to health fitness and mental wellbeing</p> <p>Benefits of a warm up and cool down</p> <p>Umpire/Timer/Scorer</p> <p>Comparison of times/distance in relation to different events and records</p> <p>Tactical awareness in differing scenarios</p> <p>Problem solving</p> <p>Organising a game/tournament/team</p> <p>Regulating themselves as a team to ensure it is fair and equal</p> <p>How to assess their own strengths and weaknesses to ensure that practical improvement can still be made.</p>	<p>Throwing</p> <p>Catching</p> <p>Batting</p> <p>Bowling</p> <p>Ground Fielding</p> <p>Rules and Regulations</p> <p>Implementation of skills into games</p>	<p>in challenging situations, are fully equipped for each lesson and show effort and commitment each lesson.</p> <p>Verbal feedback will be given lesson by lesson and students who show high standards every lesson are rewarded</p>
--	--	--	---

This Scheme of Work is designed to work alongside the following resources which are recommended to benefit and support the delivery of the AQA GCSE Specification theory content in school. As well as the student's primary sport, the department offer a rock climbing course and deliver handball within practical sessions, to ensure all students are able to perform three sports at the required level.

**PowerPoints:** Created by department members

**Text Book:** Howitt, R. & Murray M. (2016). AQA GCSE (9-1) PE. Hodder & Stoughton. ISBN: 9781471859526

Unit & Topic	Learning & Assessment Objectives	Content	Resources	Delivery suggestions
3.1.3 Physical Training	AO1, AO2, AO3 Paper 1	<b>3.1.3.1. The relationship between health and fitness and the role exercise plays in both.</b>	-PowerPoint -YouTube	-Delivery of 'Components of Fitness' PowerPoint resource.

		<ul style="list-style-type: none"> <li>- Relationship between Health &amp; Fitness.</li> <li>- Definitions.</li> </ul> <p><b>3.1.3.2. Components of fitness, benefits for sport and how fitness is measured and improved.</b></p> <ul style="list-style-type: none"> <li>- Definitions of all 10 components of fitness.</li> <li>-Linking sports and activities to components of fitness.</li> </ul>	<ul style="list-style-type: none"> <li>-Text Book pages 42 – 49.</li> </ul>	<ul style="list-style-type: none"> <li>-Range of strategies for ‘reflection tasks’, including individual, paired and group work.</li> <li>-Use of exam-style questions in exam conditions or as homework tasks – mark schemes to be used as peer/self-assessment.</li> </ul>
	AO1, AO2, AO3 Paper 1	<p><b>3.1.3.2. Fitness Testing</b></p> <ul style="list-style-type: none"> <li>– Introducing the tests used to measure each of the 10 components of fitness.</li> <li>-Reasons for and limitations of fitness testing.</li> </ul> <p><b>3.1.4. Data analysis.</b></p> <ul style="list-style-type: none"> <li>- Introducing different types of data and interpretation linked to fitness tests.</li> </ul>	<ul style="list-style-type: none"> <li>-PowerPoint</li> <li>-YouTube</li> <li>-Text Book pages 51 – 61.</li> </ul>	<ul style="list-style-type: none"> <li>-Delivery of ‘<b>Fitness Testing</b>’ PowerPoint resource.</li> <li>-Range of strategies for ‘reflection tasks’, including individual, paired and group work.</li> <li>-Use of exam-style questions in exam conditions or as homework tasks – mark schemes to be used as peer/self-assessment.</li> <li>-Practical engagement with a variety of fitness tests to support data analysis and deepen k&amp;u of fitness tests.</li> </ul>
	AO1, AO2, AO3 Paper 1	<p><b>3.1.3.3. The principles of training and their application to personal exercise/training programmes.</b></p> <ul style="list-style-type: none"> <li>- Introduction of SPORT and FITT principles.</li> <li>-Application of the principles of training.</li> <li>- Types of training. Introducing the 7 different methods of training with examples.</li> <li>- Advantages and disadvantages of the different types of training with examples.</li> </ul>	<ul style="list-style-type: none"> <li>-PowerPoint</li> <li>-YouTube</li> <li>-Text Book pages 61 – 72.</li> </ul>	<ul style="list-style-type: none"> <li>-Delivery of ‘<b>Principles of Training</b>’ PowerPoint resource.</li> <li>-Range of strategies for ‘reflection tasks’, including individual, paired and group work.</li> <li>-Use of exam-style questions in exam conditions or as homework tasks – mark schemes to be used as peer/self-assessment.</li> </ul>
	AO1, AO2, AO3 Paper 1	<p><b>3.1.3.4. Optimising training and injury prevention</b></p>	<ul style="list-style-type: none"> <li>-PowerPoint</li> <li>-YouTube</li> </ul>	<ul style="list-style-type: none"> <li>-Delivery of ‘<b>Aerobic and Anaerobic Training Thresholds</b>’ PowerPoint resource.</li> </ul>

		<p>-Introduction of aerobic and anaerobic respiration.</p> <p>-Calculating and understanding the training thresholds for aerobic and anaerobic training.</p> <p>-Altitude training concepts.</p>	<p>-Text Book pages 67 and 73.</p>	<p>-Range of strategies for 'reflection tasks', including individual, paired and group work.</p> <p>-Use of exam-style questions in exam conditions or as homework tasks – mark schemes to be used as peer/self-assessment.</p>
	AO1, AO2, AO3 Paper 1	<p><b>3.1.3.4. Optimising training and injury prevention.</b></p> <p>- Injury prevention methods</p> <p>- Seasonal aspects – training seasons introduced and explained.</p> <p><b>3.1.3.5 Effective use of warm ups and cool down.</b></p> <p>-Warm ups and cool down methods introduced and explained.</p>	<p>-PowerPoint</p> <p>-YouTube</p> <p>-Text Book pages 73 – 78.</p>	<p>-Delivery of '<b>Injury Prevention and Training Seasons</b>' PowerPoint resource.</p> <p>-Range of strategies for 'reflection tasks', including individual, paired and group work.</p> <p>-Use of exam-style questions in exam conditions or as homework tasks – mark schemes to be used as peer/self-assessment.</p> <p>-Practical tasks linked to delivery of warm ups and cool downs.</p>
<b>3.2.2 Socio-Cultural Influences</b>	AO1, AO2, AO3 Paper 2	<p><b>3.2.2.1 Engagement patterns of different social groups and the factors affecting participation.</b></p> <p>-Engagement patterns of different social groups affecting participation.</p>	<p>-PowerPoint</p> <p>-YouTube</p> <p>-Text Book pages 102 – 112.</p>	<p>-Delivery of '<b>Engagement and Participation</b>' PowerPoint resource.</p> <p>-Range of strategies for 'reflection tasks', including individual, paired and group work.</p> <p>-Use of exam-style questions in exam conditions or as homework tasks – mark schemes to be used as peer/self-assessment.</p> <p>-Questionnaire task to gather quantitative data for analysis.</p>
	AO1, AO2, AO3 Paper 2	<p><b>3.2.2.3 Ethical and socio-cultural issues in physical activity and sport.</b></p> <p>-Conduct of performers.</p> <p>- Prohibited substances.</p>	<p>-PowerPoint</p> <p>-YouTube</p> <p>-Text Book pages 126 – 134.</p>	<p>-Delivery of '<b>Ethical Issues</b>' PowerPoint resource.</p> <p>-Range of strategies for 'reflection tasks', including individual, paired and group work.</p> <p>-Use of exam-style questions in exam conditions or as homework tasks – mark schemes to be used as peer/self-assessment.</p>



		<ul style="list-style-type: none"> <li>- Prohibited methods and PEDS.</li> <li>- Advantages and disadvantages of taking PEDS.</li> <li>- Spectator behaviour.</li> <li>- Hooliganism – Reasons why this occurs and strategies to combat hooliganism.</li> </ul>		-School trip to a live sports event to experience the atmosphere.
	AO1, AO2, AO3 Paper 2	<b>3.2.2.2 Commercialisation of physical activity and sport.</b> <ul style="list-style-type: none"> <li>-Commercialisation</li> <li>- Sponsorship and the media</li> <li>- Positive and negative impacts of sponsorship and the media</li> <li>- Positive and negative impacts of technology</li> </ul>	<ul style="list-style-type: none"> <li>-PowerPoint</li> <li>-YouTube</li> <li>-Text Book pages 113 – 125.</li> </ul>	<ul style="list-style-type: none"> <li>-Delivery of '<b>Commercialisation</b>' PowerPoint resource.</li> <li>-Range of strategies for 'reflection tasks', including individual, paired and group work.</li> <li>-Use of exam-style questions in exam conditions or as homework tasks – mark schemes to be used as peer/self-assessment.</li> </ul>
<b>3.1.1 Applied Anatomy and Physiology</b>	AO1, AO2, AO3 Paper 1	<b>3.1.1.1 The structure and functions of the musculoskeletal system.</b> <ul style="list-style-type: none"> <li>-Bones</li> <li>-Structure of the skeleton</li> <li>-Functions of the skeleton</li> <li>-Muscles of the body</li> <li>-Joints (Synovial and freely-movable) and the different types of joints</li> </ul>	<ul style="list-style-type: none"> <li>-PowerPoint</li> <li>-YouTube</li> <li>-Text Book pages 2 – 9.</li> </ul>	<ul style="list-style-type: none"> <li>-Delivery of '<b>Structure and functions of the musculoskeletal system</b>' PowerPoint resource.</li> <li>-Range of strategies for 'reflection tasks', including individual, paired and group work.</li> <li>-Use of exam-style questions in exam conditions or as homework tasks – mark schemes to be used as peer/self-assessment.</li> </ul>

		-How movement occurs		
	AO1, AO2, AO3 Paper 1	<p><b>3.1.1.2 The structure and functions of the cardiorespiratory system.</b></p> <ul style="list-style-type: none"> <li>-The pathway of air</li> <li>-Gaseous exchange</li> <li>-Blood vessels</li> <li>-Structure of the heart</li> <li>-Cardia cycle, cardiac output and stroke volume</li> <li>-Mechanics of breathing</li> <li>-Interpretation of a spirometer trace</li> </ul>	<ul style="list-style-type: none"> <li>-PowerPoint</li> <li>-YouTube</li> <li>-Text Book pages 10 – 18.</li> </ul>	<ul style="list-style-type: none"> <li>-Delivery of '<b>Structure and functions of the cardiorespiratory system</b>' PowerPoint resource.</li> <li>-Range of strategies for 'reflection tasks', including individual, paired and group work.</li> <li>-Use of exam-style questions in exam conditions or as homework tasks – mark schemes to be used as peer/self-assessment.</li> </ul>
	AO1, AO2, AO3 Paper 1	<p><b>3.1.1.3 Anaerobic and aerobic exercise.</b></p> <ul style="list-style-type: none"> <li>-Aerobic and anaerobic terms and use in exercise</li> <li>-Oxygen consumption and EPOC</li> <li>-The recovery process.</li> </ul> <p><b>3.1.1.4 Short and long term effects of exercise.</b></p> <ul style="list-style-type: none"> <li>-Immediate effects of exercise</li> <li>-Short-term effects of exercise</li> </ul>	<ul style="list-style-type: none"> <li>-PowerPoint</li> <li>-YouTube</li> <li>-Text Book pages 19 – 26.</li> </ul>	<ul style="list-style-type: none"> <li>-Delivery of '<b>Aerobic, anaerobic and the effects of exercise</b>' PowerPoint resource.</li> <li>-Range of strategies for 'reflection tasks', including individual, paired and group work.</li> <li>-Use of exam-style questions in exam conditions or as homework tasks – mark schemes to be used as peer/self-assessment.</li> </ul>

		-Long-term effects of exercise		
<b>3.2.1 Sport Psychology</b>	AO1, AO2, AO3 Paper 2	<p><b>3.2.1.1 Classification of skills (basic/complex, open/closed).</b></p> <ul style="list-style-type: none"> <li>-Skills and ability</li> <li>-Classification of skills</li> <li>-Type of goals (performance or outcome)</li> </ul> <p><b>3.2.1.2 The use of goal setting and SMART targets to improve and/or optimise performance.</b></p> <ul style="list-style-type: none"> <li>-Evaluating performance and outcomes</li> <li>-SMART targets</li> </ul>	<ul style="list-style-type: none"> <li>-PowerPoint</li> <li>-YouTube</li> <li>-Text Book pages 79 – 85.</li> </ul>	<ul style="list-style-type: none"> <li>-Delivery of '<b>Classification of Skills and SMART Targets</b>' PowerPoint resource.</li> <li>-Range of strategies for 'reflection tasks', including individual, paired and group work.</li> <li>-Use of exam-style questions in exam conditions or as homework tasks – mark schemes to be used as peer/self-assessment.</li> </ul>
<b>3.2.1 Sport Psychology</b>	AO1, AO2, AO3 Paper 2	<p><b>3.2.1.3 Basic information processing.</b></p> <ul style="list-style-type: none"> <li>-Basic information processing model</li> <li>-Input/Output/Decision making processes</li> </ul> <p><b>3.2.1.4 Guidance and feedback on performance.</b></p> <ul style="list-style-type: none"> <li>-Types of guidance and feedback and their effectiveness.</li> </ul>	<ul style="list-style-type: none"> <li>-PowerPoint</li> <li>-YouTube</li> <li>-Text Book pages 88 - 93.</li> </ul>	<ul style="list-style-type: none"> <li>-Delivery of '<b>Information Processing and Feedback</b>' PowerPoint resource.</li> <li>-Range of strategies for 'reflection tasks', including individual, paired and group work.</li> <li>-Use of exam-style questions in exam conditions or as homework tasks – mark schemes to be used as peer/self-assessment.</li> </ul>
<b>3.2.1 Sport Psychology</b>	AO1, AO2, AO3 Paper 2	<p><b>3.2.1.5 Mental Preparation for Performance.</b></p> <ul style="list-style-type: none"> <li>-Arousal and the Inverted-U Theory</li> </ul>	<ul style="list-style-type: none"> <li>-PowerPoint</li> <li>-YouTube</li> <li>-Text Book pages 94 – 101.</li> </ul>	<ul style="list-style-type: none"> <li>-Delivery of '<b>Mental Preparation for Performance</b>' PowerPoint resource.</li> <li>-Range of strategies for 'reflection tasks', including individual, paired and group work.</li> </ul>

		-Optimal arousal and stress management.		-Use of exam-style questions in exam conditions or as homework tasks – mark schemes to be used as peer/self-assessment.
<b>3.2.1 Health, Fitness and well-being</b>	AO1, AO2, AO3 Paper 2	<p><b>3.2.3.1 Physical, emotional, social health, fitness and well-being.</b></p> <p>-Linking physical activity and exercise to health, well-being and fitness.</p> <p><b>3.2.3.2. Consequences of a sedentary lifestyle.</b></p> <p>-Sedentary lifestyles introduced</p> <p>-Obesity and its effect on performance</p> <p>-Somatotypes</p>	<p>-PowerPoint</p> <p>-YouTube</p> <p>-Text Book pages 135 – 147.</p>	<p>-Delivery of <b>‘Health and Well-Being and the Consequences of a Sedentary Lifestyle’</b> PowerPoint resource.</p> <p>-Range of strategies for ‘reflection tasks’, including individual, paired and group work.</p> <p>-Use of exam-style questions in exam conditions or as homework tasks – mark schemes to be used as peer/self-assessment.</p>
<b>3.2.1 Health, Fitness and well-being</b>	AO1, AO2, AO3 Paper 2	<p><b>3.2.3.3 Energy, Diet and Nutrition.</b></p> <p>-Energy use</p> <p>-Nutrition and balanced diet</p> <p>-Nutrition and the role of carbohydrates, proteins, fats and vitamins/minerals</p> <p>-Maintaining water balance (hydration)</p>	<p>-PowerPoint</p> <p>-YouTube</p> <p>-Text Book pages 147 - 153.</p> <p>-Examples of healthy vs non-healthy foods.</p>	<p>-Delivery of <b>‘Energy, Diet and Nutrition’</b> PowerPoint resource.</p> <p>-Range of strategies for ‘reflection tasks’, including individual, paired and group work.</p> <p>-Use of exam-style questions in exam conditions or as homework tasks – mark schemes to be used as peer/self-assessment.</p>
<b>3.1.2 Movement analysis</b>	AO1, AO2, AO3 Paper 1	<p><b>3.1.2.1 Lever systems, examples of their use in activity and the mechanical advantage they provide in movement.</b></p> <p>-First, second and third class lever systems within sports examples</p>	<p>-PowerPoint</p> <p>-YouTube</p> <p>-Text Book pages 27 - 41.</p>	<p>-Delivery of <b>‘Movement Analysis in Sport’</b> PowerPoint resource.</p> <p>-Range of strategies for ‘reflection tasks’, including individual, paired and group work.</p> <p>-Use of exam-style questions in exam conditions or as homework tasks – mark schemes to be used as peer/self-assessment.</p>

-Mechanical advantages linked to the lever systems

-Analysis of basic sporting movements

**3.1.2.2 Planes and axes of movement.**

-Introduction of the different planes (frontal, transverse, sagittal) and axes (longitudinal, transverse, sagittal) of movement in sport.

-Practical-based sessions to observe movement patterns across a range of different activities.



**Intent:**  
 At Sale High School, our aim for Religion & Ethics is to provide students with an academically rigorous study of religious beliefs and practices, and broader ethical questions. Our curriculum empowers students to thrive in a diverse, multi-faith society by fostering a deep understanding of different religious and non-religious worldviews. Students will gain a strong disciplinary knowledge, enabling them to explore, critically, different religions and worldviews and fully analyse and evaluate different teachings and practices. This equips students to address moral and ethical dilemmas and become well-rounded individuals who are academically proficient, culturally sensitive, and morally responsible.

**Sequencing:**  
 At KS3, students will begin by exploring the fundamental philosophical inquiries such as “What is a worldview?”, leading into an in-depth examination of various religious traditions, such as the Abrahamic Religions in Year 7 and the Dharmic Religions in Year 8. Students will also receive an opportunity to apply the knowledge gained in Year 7 and 8 by considering questions, such as ,“Is death the end?”, “What is good and challenging about being X in Britain today?” and “What makes life valuable?”. These ‘big questions’ encourage students to use the disciplinary knowledge that is acquired across other humanities subjects to analyse and examine contemporary topics. This will also allow students to critically explore the significance and impact that different interpretation of scripture can bring to different worldviews and religious practices.  
 At KS4, students can opt to complete the Religious Education GCSE course through the AQA exam board. This GCSE course builds upon students’ knowledge of Islam and Christianity, whilst also continuing to develop the disciplinary knowledge to critically analyse scripture and examine the influences of religious belief on human behaviour. It also encourages students to develop skills of empathy and cultural understanding, preparing them for thoughtful and inclusive engagement in an increasingly diverse world.

**I study RE because:**

- I learn more about spirituality, faith, diversity, and belief
- I feel empowered to make a positive contribution and make informed moral choices
- I learn more about how beliefs and values affect current issues and cultures.

**Cultural capital/enrichment**  
 RE provides opportunities for authentic interfaith dialogue, including enriching visits to the Jewish Museum, Sikh Gurdwara, Mosque and Manchester Cathedral. In Year 9 at Sale High School, our RE program fosters authentic interfaith dialogue, provides a secure space for self-exploration of beliefs, and includes a visit to Altrincham and Hale Islamic Association. Pupils are encouraged to read texts for meaning and use contextual knowledge to build a deeper understanding of the meaning being conveyed. This provides cross-curricular skills which can enhance understanding in History, Geography, Literature and Languages. Pupils use statistical skills to understand data about social attitudes and religious affiliation, this provides an opportunity for the practical application of skills from mathematics. The study of religions also provides opportunities to link with MFL and geography in enhancing pupils understanding of the culture and traditions of different places. Students also benefit from an interfaith club where they can explore other cultures and traditions and celebrate the diversity of the school.

Unit	Topic (Lens)	Key skills I will learn in this topic	Key knowledge	Assessment opportunities (Summative and formative) Key pieces Each unit will contain ‘Spelling Bees’ of keyword vocabulary (once across the half term, with revision HW opportunities)
------	--------------	---------------------------------------	---------------	--

Unit 1	<p>Christianity: Practices (Theology &amp; Sociology)</p>	<p>Students will be able to:</p> <ul style="list-style-type: none"> <li>- Describe the different forms of worship and prayer.</li> <li>- Critically assess the significance of different forms of worship and prayer.</li> <li>- Explain the importance of sacraments.</li> <li>- Critically evaluate the difference and significance of infant and believers baptism.</li> <li>- Explain the significance of the Eucharist as a tool for expressing belief.</li> <li>- Critically evaluate the importance of pilgrimage in a Christian's life and how that impacts faith.</li> <li>- Describe role of the Church in the local community.</li> <li>- Explain the importance of mission, evangelism and Church growth.</li> <li>- Explain and evaluate the importance of the worldwide Church and the work for reconciliation and against persecution.</li> </ul>	<p>Students will know:</p> <p><b>Worship and festivals</b></p> <ul style="list-style-type: none"> <li>- Different forms of worship and their significance: liturgical, non-liturgical and informal, including the use of the Bible, private worship.</li> <li>- Prayer and its significance, including the Lord's Prayer, set prayers and informal prayer.</li> </ul> <p><b>The role and meaning of the sacraments:</b></p> <ul style="list-style-type: none"> <li>- The sacrament of baptism and its significance for Christians</li> <li>- The sacrament of Holy Communion/ Eucharist and its significance for Christians.</li> </ul> <p><b>The role and importance of pilgrimage and celebrations including:</b></p> <ul style="list-style-type: none"> <li>- Two contrasting examples of Christian pilgrimage: Lourdes and Iona</li> <li>- The celebrations of Christmas and Easter.</li> </ul> <p><b>The role of the church in the local and worldwide community</b></p> <ul style="list-style-type: none"> <li>- The role of the Church in the local community, including food banks and street pastors.</li> <li>- The place of mission, evangelism and Church growth.</li> <li>- The importance of the worldwide Church including: working for reconciliation, responding to persecution</li> <li>- The work of one of the following: Catholic Agency For Overseas Development (CAFOD), Christian Aid, Tearfund.</li> <li>-</li> </ul>	<p>Exam style paper:</p> <ol style="list-style-type: none"> <li>1. Multiple choice,</li> <li>2. State beliefs;</li> <li>3. Explain concepts or influences</li> <li>4. Explain concepts or influences (+ SOWA)</li> <li>5. Evaluate the statement: <b><i>“Following a set structure of worship is the best way for Christians to get close to God.”</i></b></li> </ol> <p>End of Unit Assessment: Exam style paper:</p> <ol style="list-style-type: none"> <li>1. Multiple choice,</li> <li>2. State beliefs;</li> <li>3. Explain concepts or influences</li> <li>4. Explain concepts or influences (+ SOWA)</li> <li>5. Evaluate the statement: <b><i>“The celebration of Holy Communion (Eucharist) is the most important part of Christian life.”</i></b></li> </ol>
--------	---	--	--	--

Unit 2	<p>Islam: Practices (Theology &amp; Sociology)</p>	<p>Students will be able to:</p> <ul style="list-style-type: none"> <li>- Explain each of the Five Pillars of Islam and their significance, founded on teachings of the Qur'an.</li> <li>- Explain the practice and purpose of Salah, including the rituals surrounding the practice of prayer.</li> <li>- Explain the significance of Ramadan and the origins, duties, benefits and exceptions of Sawm.</li> <li>- Explain the practice and importance of Zakat (Khums – Shi'a), including the origins, duties and benefits.</li> <li>- Explain the practice and purpose of Hajj, including the significance of the journey to Makkah and the actions performed.</li> <li>- Explain and critically assess the different understandings of Jihad, including the origins, influences and conditions.</li> <li>- Critically assess the significance of various Muslim festivals, such as Id-ul-Adha, Id-ul-Fitr and Ashura, including their importance for Muslims in Great Britain today.</li> </ul>	<p>Students will know:</p> <p><b>Worship:</b></p> <ul style="list-style-type: none"> <li>- Five Pillars of Sunni Islam and the Ten Obligatory Acts of Shi'a Islam</li> <li>- Shahadah: declaration of faith and its place in Muslim practice.</li> <li>- Salah and its significance: how and why Muslims pray including times, directions, ablution (wudu), movements (rak'ahs) and recitations; salah in the home and mosque and elsewhere; Friday prayer: Jummah; key differences in the practice of salah in Sunni and Shi'a Islam, and different Muslim views about the importance of prayer.</li> </ul> <p><b>Duties and festivals</b></p> <ul style="list-style-type: none"> <li>- Sawm: the role and significance of fasting during the month of Ramadan including origins, duties, benefits of fasting, the exceptions and their reasons, and the Night of Power, Qur'an 96:1-5.</li> <li>- Zakah: the role and significance of giving alms including origins, how and why it is given, benefits of receipt, Khums in Shi'a Islam.</li> <li>- Hajj: the role and significance of the pilgrimage to Makkah including origins, how hajj is performed, the actions pilgrims perform at sites including the Ka'aba at Makkah, Mina, Arafat, Muzdalifah and their significance.</li> <li>- Jihad: different understandings of jihad: the meaning and significance of greater and lesser jihad; origins, influence and conditions for the declaration of lesser jihad.</li> <li>- Festivals and commemorations and their importance for Muslims in Great Britain today, including the origins and meanings of Id-ul-Adha, Id-ul-Fitr, Ashura.</li> </ul>	<p>Exam style paper:</p> <ol style="list-style-type: none"> <li>1. Multiple choice,</li> <li>2. State beliefs;</li> <li>3. Explain concepts or influences</li> <li>4. Explain concepts or influences (+ SOWA)</li> <li>5. Evaluate the statement: <b><i>“Completing the hajj is the most important duty for a Muslim.”</i></b></li> </ol> <p>Winter Exam. Exam style paper (half):</p> <ul style="list-style-type: none"> <li>- Islam (practices)</li> <li>- Theme E</li> </ul>
--------	--	---	--	---



Unit 3	<p>Theme C: The Existence of God and Revelation (Philosophy)</p>	<p>Students will be able to:</p> <ul style="list-style-type: none"> <li>- Explain and critically assess the strengths and weaknesses of the Design Argument as proof of the existence of God.</li> <li>- Explain and critically assess the strengths and weaknesses of the First Cause Argument as proof of the existence of God.</li> <li>- Explain examples of miracles and critically assess their reliability as proof of the existence of God.</li> <li>- Explain Mackie's problem of evil and suffering and critically evaluate the impact this has on belief in God.</li> <li>- Evaluate the arguments presented by science regarding the creation of the universe and assess their impact of belief in God.</li> <li>- Explain and critically assess the difference between general and special revelation, using examples from history and scripture to evaluate the influence such experiences can have on belief in God.</li> <li>- Evaluate the concept of enlightenment as a source of knowledge about the divine.</li> <li>- Critically analyse the problems of different ideas about the divine arising from these experiences; alternative explanations for the experiences, and the possibility that the people who claimed to have them were lying or mistaken.</li> </ul>	<p>Students will know:</p> <p><b>Philosophical arguments for and against the existence of God:</b></p> <ul style="list-style-type: none"> <li>- The Design argument, including its strengths and weaknesses.</li> <li>- The First Cause argument, including its strengths and weaknesses.</li> <li>- The argument from miracles, including its strengths and weaknesses, and one example of a miracle.</li> <li>- Evil and suffering as an argument against the existence of God.</li> <li>- Arguments based on science against the existence of God.</li> </ul> <p><b>The nature of the divine and revelation:</b></p> <ul style="list-style-type: none"> <li>- Special revelation as a source of knowledge about the divine, including visions and one example of a vision.</li> <li>- Enlightenment as a source of knowledge about the divine.</li> <li>- General revelation: nature and scripture as a way of understanding the divine.</li> <li>- Different ideas about the divine that come from these sources: omnipotent and omniscient, personal and impersonal, immanent and transcendent.</li> <li>- The value of general and special revelation and enlightenment as sources of knowledge about the divine, including: the problems of different ideas about the divine arising from these experiences; alternative explanations for the experiences, and the possibility that the people who claimed to have them were lying or mistaken.</li> </ul>	<p>Exam style paper:</p> <ol style="list-style-type: none"> <li>1. Multiple choice,</li> <li>2. State beliefs;</li> <li>3. Explain concepts or influences</li> <li>4. Explain concepts or influences (+ SOWA)</li> <li>5. Evaluate the statement: <b><i>"It is impossible to prove God exists"</i></b></li> </ol> <p>End of Unit Assessment: Exam style paper:</p> <ol style="list-style-type: none"> <li>1. Multiple choice,</li> <li>2. State beliefs;</li> <li>3. Explain concepts or influences</li> <li>4. Explain concepts or influences (+ SOWA)</li> <li>5. Evaluate the statement: <b><i>"The only way to know God is by being enlightened."</i></b></li> </ol>
--------	--	--	---	--

Unit 4	<p>Theme B: Religion and Life (Theology &amp; Sociology)</p>	<p>Students will be able to:</p> <ul style="list-style-type: none"> <li>- Explain different beliefs and interpretations of the origins of the universe and critically evaluate the relationship between scientific and religious views.</li> <li>- Explain different beliefs about the value of the world and the impact of beliefs such as stewardship, dominion and khalifah.</li> <li>- Critically evaluate different religious and non-religious views about the use and abuse of the environment, including the use of natural resources and pollution.</li> <li>- Critically evaluate different religious and non-religious views about the use and abuse of animals, including animal experimentation and animals as food.</li> <li>- Explain diverse religious and non-religious beliefs about the value of human life, including the sanctity of life, and critically evaluate the relationship between scientific and religious views.</li> <li>- Critically assess the diverse religious and ethical approaches to the topic of abortion and euthanasia, including the impact and influence such beliefs have on human life today.</li> <li>- Critically assess the diverse religious and non-religious beliefs about death and the afterlife, including the impact and influence such beliefs have on human life today.</li> </ul>	<p>Students will know:</p> <p><b>The origins and value of the universe:</b></p> <ul style="list-style-type: none"> <li>- The origins of the universe, including: religious teachings about the origins of the universe, and different interpretations of these; the relationship between scientific views, such as the Big Bang theory, and religious views.</li> <li>- The value of the world and the duty of human beings to protect it, including religious teaching about stewardship, dominion, responsibility, awe and wonder.</li> <li>- The use and abuse of the environment, including the use of natural resources, pollution.</li> <li>- The use and abuse of animals, including: animal experimentation, the use of animals for food.</li> </ul> <p><b>The origins and value of human life:</b></p> <ul style="list-style-type: none"> <li>- The origins of life, including: religious teachings about the origins of human life, and different interpretations of these; the relationship between scientific views, such as evolution, and religious views.</li> <li>- The concepts of sanctity of life and the quality of life.</li> <li>- Abortion, including situations when the mother's life is at risk.</li> <li>- Ethical arguments related to abortion, including those based on the sanctity of life and quality of life.</li> <li>- Euthanasia.</li> <li>- Beliefs about death and an afterlife, and their impact on beliefs about the value of human life.</li> </ul>	<p>Mid-Unit Assessment:</p> <p>Exam style paper:</p> <ol style="list-style-type: none"> <li>1. Multiple choice,</li> <li>2. State beliefs;</li> <li>3. Explain concepts or influences</li> <li>4. Explain concepts or influences (+ SOWA)</li> <li>5. Evaluate the statement: <b><i>“Euthanasia is never the best option”</i></b></li> </ol> <p>End of Unit Exam style paper (half):</p> <ul style="list-style-type: none"> <li>- Theme B</li> <li>- Islam (beliefs)</li> </ul> <p><b>GCSE Exam – Summer.</b></p>
--------	--	--	---	---



## Curriculum Map Year 11: Combined Science

**Science Intent Statement** - The Science department at Sale High School follows a 5 year in depth, knowledge rich Science curriculum which covers all aspects of the National Curriculum, supported by using the Exploring Science Year 7 – 9 structure. At Key Stage 4 we offer both Combined and Triple Science GCSEs through the Edexcel exam board. Practicals play a key role in developing pupil's skills, practicals will be used to develop scientific enquiry skills collecting, recording and processing data. The Science curriculum is further enriched through Science club, Sale Scholars, Physics Olympiads and Science ambassadors.

We have a high level of pupils opting to take triple Science and great progression onto Science based A levels and University courses, we believe this is due to having high expectations, strong work ethic and most importantly our desire to develop pupils love for Science and thirst for knowledge.

Why study Science?

"I learn science because:

- It develops my analytical and problem-solving skills.
- It increases my fundamental knowledge, linked to real life situations
- It helps me to develop my curiosity about the world around us."

**Cultural capital/enrichment:** Pupils have the opportunity to attend revision sessions as per timetable (this is published fully after Christmas and includes morning, lunch time and half term revision sessions). Pupils also have the opportunity to continue their science ambassador roles from year 10 or even apply to be one.

Term	Topic	Key knowledge <i>GCSE Combined Science – Edexcel Specification.</i>	Key skills I will learn in this topic	Assessment opportunities (Summative and formative) Key pieces
Term 1	<b>Biology Topics 8 and 9</b> – Exchange and transport in Animals, Ecosystems and material cycles  <b>Physics Topic 9</b> - Electricity and Circuits (Review content not taught in Year 10 this could be the full topic) <b>Start</b>	Pupils will learn: -how alveoli are adapted for gas exchange by diffusion between air in the lungs and blood in capillaries. -how the structure of the blood is related to its function. - how the structure of the blood vessels are related to their function. -how the structure of the heart and circulatory system is related to its function. -cellular respiration is an exothermic reaction which occurs continuously in living cells to release energy for metabolic processes, including aerobic and anaerobic respiration. -the differences between aerobic and anaerobic respiration. -the different levels of organisation from individual organisms, populations, communities, to the whole ecosystem. -how communities can be affected by abiotic and biotic factors. -the importance of interdependence in a community. -how the survival of some organisms is dependent on other species, including parasitism and mutualism. -the positive and negative human interactions within ecosystems and their impacts on biodiversity. -the benefits of maintaining local and global biodiversity, including the conservation of animal species and the impact of reforestation. -how different materials cycle through the abiotic and biotic components of an ecosystem.	Pupils will learn: -Appropriate experimental techniques to complete required investigations. - how to... Investigate the rate of respiration in living organisms Investigate the relationship between organisms and their environment using field-work techniques, including quadrats and belt transects. Construct electrical circuits to: a investigate the relationship between potential difference, current and resistance for a resistor and a filament lamp b test series and parallel circuits using resistors and filament lamps.  Literacy skills: answering extended writing GCSE questions.  Maths Skills: Calculation of surface area : volume ratio. Calculate heart rate, stroke volume and cardiac output, using the equation cardiac output = stroke volume × heart rate	Baseline 30 mark knowledge test.  End of topic test - Biology Topics 8 and 9 – Exchange, transport in animals, ecosystems and material cycles  Literacy task – 6 mark question.

		<p>-the importance of the carbon cycle, including the processes involved and the role of microorganisms as decomposers.</p> <p>-the importance of the water cycle, including the processes involved and the production of potable water in areas of drought including desalination.</p> <p>-how nitrates are made available for plant uptake, including the use of fertilisers, crop rotation and the role of bacteria in the nitrogen cycle.</p> <p>Pupils will also learn:</p> <p>-the structure of the atom.</p> <p>-how to draw and use electric circuit diagrams including circuit symbols.</p> <p>-the differences between series and parallel circuits.</p> <p>-that a voltmeter is connected in parallel with a component to measure the potential difference.</p> <p>-that potential difference (voltage) is the energy transferred per unit charge passed and hence that the volt is a joule per coulomb.</p> <p>-that an ammeter is connected in series with a component to measure the current, in amp, in the component.</p> <p>-that an electric current is the rate of flow of charge and the current in metals is a flow of electrons.</p> <p>-how changing the resistance in a circuit changes the current and how this can be achieved using a variable resistor.</p> <p>-if two resistors are in series, the net resistance is increased, whereas with two in parallel the net resistance is decreased.</p> <p>-how current varies with potential difference for the following devices and how this relates to resistance a filament lamps b diodes c fixed resistors.</p> <p>- how the resistance of a light-dependent resistor (LDR) varies with light intensity and how the resistance of a thermistor varies with change of temperature</p> <p>-that electrical energy is dissipated as thermal energy to the surroundings when an electrical current does work against electrical resistance.</p> <p>-ways of reducing unwanted energy transfer through low resistance wires .</p> <p>-the advantages and disadvantages of the heating effect of an electric current.</p> <p>-power is the energy transferred per second and is measured in watts.</p> <p>-how, in different domestic devices, energy is transferred from batteries and the a.c. mains to the energy of motors and heating devices.</p> <p>-direct current (d.c.) is movement of charge in one direction and that alternating current (a.c.) is the movement of charge changes direction.</p> <p>-that in the UK the domestic supply is a.c., at a frequency of 50 Hz and a voltage of about 230 V.</p> <p>-the parts and function of wires in a plug and of fuses or circuit breakers in ensuring safety with electricity.</p>	<p>how to determine the number of organisms in a given area using raw data from field-work techniques, including quadrats and belt transects.</p> <p>Recall and use the equation: energy transferred (joule, J) = charge moved (coulomb, C) × potential difference (volt, V)  <math>E = Q \times V</math>.</p> <p>Recall and use the equation: charge (coulomb, C) = current (ampere, A) × time (second, s)  <math>Q = I \times t</math></p> <p>Recall and use the equation: potential difference (volt, V) = current (ampere, A) × resistance (ohm, <math>\Omega</math>)  <math>V = I \times R</math>.</p> <p>Calculate the currents, potential differences and resistances in series circuits</p> <p>Recall and use the equation energy transferred (joule, J) = current (ampere, A) × potential difference (volt, V) × time (second, s)  <math>E = I \times V \times t</math>.</p> <p>Recall and use the equations: power (watt, W) = energy transferred (joule, J) ÷ time taken (second, s).</p> <p>electrical power (watt, W) = current (ampere, A) × potential difference (volt, V)  <math>P = I \times V</math></p> <p>electrical power (watt, W) = current squared (ampere<sup>2</sup>, A<sup>2</sup>) × resistance (ohm, <math>\Omega</math>)  <math>P = I \times R^2</math>.</p>	<p>Describe the carbon cycle.</p> <p>Spelling bees – Biology topic 9.</p>
umn 2	<p><b>Physics Topic 9 - Electricity and Circuits - Finish</b></p>	<p><i>(As above for physics topic 9)</i></p> <p>Pupils will also learn:</p> <p>- that unlike magnetic poles attract and like magnetic poles repel.</p>	<p>Pupils will learn:</p> <p>-appropriate experimental techniques to complete required investigations.</p>	<p>Winter exams – 3 x papers (biology,</p>

**Physics Topics 10,11, 12 and 13** - Magnetism, motor effect, electromagnetic induction, Particle model and forces and matter.

- the uses of permanent and temporary magnetic materials and the difference between permanent and induced magnets.
- the shape and direction of the magnetic field around bar magnets and for a uniform field.
- how the behaviour of a magnetic compass is related to evidence that the core of the Earth must be magnetic.
- that a current can create a magnetic field and that the strength of the field depends on the size of the current and the distance from the long straight conductor.
- how inside a solenoid the fields from individual coils add together to form a very strong almost uniform field along the centre of the solenoid and cancel to give a weaker field outside the solenoid.
- that a current carrying conductor placed near a magnet experiences a force and that an equal and opposite force acts on the magnet.
- that magnetic forces are due to interactions between magnetic fields.
- the factors that affect the size and direction of an induced potential difference.
- how an alternating current in one circuit can induce a current in another circuit in a transformer.
- that a transformer can change the size of an alternating voltage.
- why, in the national grid, electrical energy is transferred at high voltages from power stations, and then transferred at lower voltages in each locality for domestic uses and explain where and why step-up and step-down transformers are used in the transmission of electricity in the national grid.

Pupils will also learn:

- the differences in density between the different states of matter in terms of the arrangements of the atoms or molecules.
- that when substances melt, freeze, evaporate, boil, condense or sublimate mass is conserved.
- how heating a system will change the energy stored within the system and raise its temperature or produce changes of state.
- definitions for the terms specific heat capacity and specific latent heat and explain the differences between them.
- ways of reducing unwanted energy transfer through thermal insulation
- the pressure of a gas in terms of the motion of its particle.
- the effect of changing the temperature of a gas on the velocity of its particles and hence on the pressure produced by a fixed mass of gas at constant volume.
- the term absolute zero,  $-273\text{ }^{\circ}\text{C}$ , in terms of the lack of movement of particles.
- that stretching, bending or compressing an object requires more than one force.
- the difference between elastic and inelastic distortion.
- the difference between linear and non-linear relationships between force and extension.

- the use of plotting compasses to show the shape and direction of the field of a magnet and the Earth's magnetic field.
- to link a simple kinetic theory model to explain the different states of matter (solids, liquids and gases) in terms of the movement and arrangement of particles
- Investigate factors affecting the generation of electric current by induction.
- Investigate the temperature and volume relationship for a gas.
- Investigate the stretching of rubber bands.
- Investigate the properties of water by determining the specific heat capacity of water and obtaining a temperature-time graph for melting ice.
- Investigate the densities of solid and liquids.
- Investigate the extension and work done when applying forces to a spring.

Literacy skills: answering extended writing GCSE questions.

- Maths Skills: Recall and use Fleming's left-hand rule.  
 Recall and use the equations:....force on a conductor at right angles to a magnetic field carrying a current (newton, N) = magnetic flux density (tesla, T or newton per ampere metre, N/A m)  $\times$  current (ampere, A)  $\times$  length (metre, m)  $F = B \times I \times l$
- \*potential difference across primary coil (volt, V)  $\times$  current in primary coil (ampere, A) = potential difference across secondary coil (volt, V)  $\times$  current in secondary coil (ampere, A)  $P P S S V \times I = V \times I$
  - \*density (kilogram per cubic metre,  $\text{kg}/\text{m}^3$ ) = mass (kilogram, kg)  $\div$  volume (cubic metre,  $\text{m}^3$ )  $V m \rho$
  - \*change in thermal energy (joule, J) = mass (kilogram, kg)  $\times$  specific heat capacity (joule per kilogram degree Celsius,  $\text{J}/\text{kg } ^{\circ}\text{C}$ )  $\times$  change in temperature (degree Celsius,  $^{\circ}\text{C}$ )  $\Delta Q = m \times c \times \Delta \theta$
  - \*thermal energy for a change of state (joule, J) = mass (kilogram, kg)  $\times$  specific latent heat (joule per kilogram,  $\text{J}/\text{kg}$ )  $Q = m \times L$
- Convert between the kelvin and Celsius scale.  
 \*force exerted on a spring (newton, N) = spring constant (newton per metre, N/m)  $\times$  extension (metre, m)  $F = k \times x$   
 \*energy transferred in stretching (joule, J) = 0.5  $\times$  spring constant (newton per metre, N/m)  $\times$  (extension (metre, m))  
 $E = \frac{1}{2} k x^2$

Chemistry and physics)

Literacy task – Describe the structure of a plug and the safety features of a plug.

Spelling bees – Paper 1 key words

ng 1	<p><b>Chemistry Topics 13, 14 and 15</b> - Groups of the periodic table, rates of reaction, heat energy changes</p> <p><b>Chemistry 16 and 17</b> –Fuels and the atmosphere.</p>	<p>Pupils will learn:</p> <ul style="list-style-type: none"> <li>-why some elements can be classified as alkali metals (group 1), halogens (group 7) or noble gases (group 0), based on their position in the periodic table.</li> <li>-that alkali metals are soft and have relatively low melting points.</li> <li>-the reactions of lithium, sodium and potassium with water and how to explain the pattern of reactivity in terms of electronic configuration.</li> <li>-the colours and physical states of chlorine, bromine and iodine at room temperature.</li> <li>-the pattern in the physical properties of the halogens.</li> <li>- the chemical test for chlorine.</li> <li>-the reactions of the halogens, with metals to form metal halides and that the halogens, chlorine, bromine and iodine, form hydrogen halides which dissolve in water to form acidic solutions.</li> <li>- the relative reactivity of the halogens; chlorine, bromine and iodine, as shown by their displacement reactions with halide ions in aqueous solution</li> <li>- why these displacement reactions are redox reactions in terms of gain and loss of electrons, identifying which of the substances are oxidised and which are reduced.</li> <li>-the relative reactivity of the halogens in terms of electronic configurations.</li> <li>-why the noble gases are chemically inert and how the uses of noble gases depend on their inertness, low density and/or non-flammability.</li> <li>-the pattern in the physical properties of some noble gases and use this pattern to predict the physical properties of other noble gases.</li> <li>-how reactions occur when particles collide and that rates of reaction are increased when the frequency and/or energy of collisions is increased.</li> <li>-the effects on rates of reaction of changes in temperature, concentration, surface area to volume ratio of a solid and pressure</li> <li>-a catalyst is a substance that speeds up the rate of a reaction without altering the products of the reaction, being itself unchanged chemically and in mass at the end of the reaction.</li> <li>- that enzymes are biological catalysts and that enzymes are used in the production of alcoholic drinks.</li> <li>- an exothermic change or reaction is one in which heat energy is given out.</li> <li>-an endothermic change or reaction is one in which heat energy is taken in</li> <li>-that the breaking of bonds is endothermic and the making of bonds is exothermic</li> <li>-the overall heat energy change for a reaction is: exothermic if more heat energy is released in forming bonds in the products than is required in breaking bonds in the reactants or endothermic if less heat energy is released in forming bonds in the products than is required in breaking bonds in the</li> </ul> <p>Pupils will also learn:</p> <ul style="list-style-type: none"> <li>-that hydrocarbons are compounds that contain carbon and hydrogen only.</li> <li>-crude oil is a complex mixture of hydrocarbons and that crude oil is an important source for fuels and feedstock for the petrochemical industry.</li> <li>-the separation of crude oil into simpler, more useful mixtures is by the process of fractional distillation, including the names and uses of the fractions.</li> <li>-how hydrocarbons in different fractions differ from each other and are mostly members of the alkane homologous series.</li> </ul>	<p>Pupils will learn:</p> <ul style="list-style-type: none"> <li>-appropriate experimental techniques to complete required investigations.</li> </ul> <p>How to.....</p> <ul style="list-style-type: none"> <li>Investigate displacement reactions of halogens reacting with halide ions in solution.</li> <li>Investigate the effect of potential catalysts on the rate of decomposition of hydrogen peroxide.</li> <li>Measure temperature changes linking to type of reaction.</li> <li>Investigate the fractional distillation of synthetic crude oil and the ease of ignition and viscosity of the fractions.</li> <li>Investigate the products produced from the complete combustion of a hydrocarbon.</li> <li>Investigate the cracking of paraffin oil.</li> <li>Draw and label reaction profiles for endothermic and exothermic reactions, identifying activation energy</li> <li>Investigate the proportion of oxygen in the atmosphere.</li> <li>Investigate the presence of water vapour and carbon dioxide in the atmosphere.</li> <li>Investigate the volume of air used up and products formed when candles are burned.</li> <li>Carry out the test for oxygen.</li> <li>Investigate the effects of changing the conditions of a reaction on the rates of chemical reactions by: a measuring the production of a gas (in the reaction between hydrochloric acid and marble chips) b observing a colour change (in the reaction between sodium thiosulfate and hydrochloric acid)</li> <li>the chemical test for oxygen.</li> </ul> <p>Literacy skills: answering extended writing GCSE questions.</p> <p>Maths Skills: Drawing and interpreting appropriate graphs from data to determine rate of reaction. Determining gradients of graphs as a measure of rate of change to determine rate. Extract and interpret information from charts, graphs and tables. Calculate the energy change in a reaction given the energies of bonds (in kJ mol<sup>-1</sup>)</p>	<p>End of topic test – Chemistry 13,14 and 15 - Groups of the periodic table, rates and energy changes.</p> <p>End of topic test - Chemistry 16 and 17 –Fuels and the atmosphere.</p> <p>Literacy task – Describe how oxygen increased into the atmosphere and carbon dioxide increased.</p> <p>Spelling bees – paper 2 key words</p>
------	--	---	---	---

		<p>-an homologous series is a series of compounds which have the same general formula, differ by CH<sub>2</sub> in molecular formulae from neighbouring compounds, show a gradual variation in physical properties and have similar chemical properties.</p> <p>-the complete combustion of hydrocarbon fuels is a reaction in which carbon dioxide and water are produced and energy is given out.</p> <p>-the incomplete combustion of hydrocarbons can produce carbon and carbon monoxide and the problems associated with carbon monoxide and soot.</p> <p>-how impurities in some hydrocarbon fuels result in the production of sulfur dioxide and some of the problems associated with acid rain caused when sulfur dioxide dissolves in rain water.</p> <p>-when fuels are burned in engines, oxygen and nitrogen can react together at high temperatures to produce oxides of nitrogen, which are pollutants.</p> <p>-the advantages and disadvantages of using hydrogen, rather than petrol, as a fuel in cars</p> <p>-why cracking involves the breaking down of larger, saturated hydrocarbon molecules (alkanes) into smaller, more useful ones, some of which are unsaturated (alkenes) and why cracking is necessary</p> <p>-that the gases produced by volcanic activity formed the Earth's early atmosphere.</p> <p>-that the Earth's early atmosphere was thought to contain little or no oxygen, large amounts of carbon dioxide, water vapour and small amounts of other gases.</p> <p>how the earth cooled and condensation of water vapour formed oceans.</p> <p>-how the amount of carbon dioxide in the atmosphere was decreased when carbon dioxide dissolved as the oceans formed.</p> <p>-how the growth of primitive plants used carbon dioxide and released oxygen by photosynthesis and consequently the amount of oxygen in the atmosphere gradually increased.</p> <p>- how various gases in the atmosphere, including carbon dioxide, methane and water vapour, absorb heat radiated from the Earth, subsequently releasing energy which keeps the Earth warm: known as the greenhouse effect.</p> <p>-the evidence for human activity causing climate change and the potential effects on the climate with increased levels of carbon dioxide and methane generated by human activity, including burning fossil fuels and livestock farming.</p> <p>-the composition of today's atmosphere.</p>		
ng 2	Revision and booster sessions for GCSE Exams.	<p>Pupils will be using lesson time to review previously studied content. This will be based around revision lessons, past paper exams and walking talking exams.</p> <p>Exams start in May and continue throughout June. Pupils will sit 6 exams</p> <p>Each assessment is 1 hour and 10 minutes, the assessment is out of 60 marks and the assessment consists of six questions. Students must answer all questions. The paper will include multiple-choice, short answer questions, calculations and extended open-response questions.</p>		<p>PPE exams – 3 x papers (biology, Chemistry and physics)</p> <p>Spelling bees – paper 1 and 2 key words.</p>

		<p>Available at foundation tier and higher tier. Students must complete all assessments for this qualification in the same tier. The foundation tier paper will target grades 1–5. The higher tier paper will target grades 4–9.</p> <p>Paper 1: Biology Content assessed Topic 1 – Key concepts in biology, Topic 2 – Cells and control, Topic 3 – Genetics, Topic 4 – Natural selection and genetic modification, Topic 5 – Health, disease and the development of medicines</p> <p>Paper 2: Biology 2 Content assessed Topic 1 – Key concepts in biology, Topic 6 – Plant structures and their functions, Topic 7 – Animal coordination, control and homeostasis, Topic 8 – Exchange and transport in animals, Topic 9 – Ecosystems and material cycles</p> <p>Paper 3: Chemistry 1 Content assessed Topic 1 – Key concepts in chemistry, Topic 2 – States of matter and mixtures, Topic 3 – Chemical changes, Topic 4 – Extracting metals and equilibria.</p> <p>Paper 4: Chemistry 2 Content assessed Topic 1 – Key concepts in chemistry, Topic 6 – Groups in the periodic table, Topic 7 – Rates of reaction and energy changes, Topic 8 – Fuels and Earth science.</p> <p>Paper 5: Physics 1 Content assessed Topic 1 – Key concepts of physics, Topic 2 – Motion and forces, Topic 3 – Conservation of energy, Topic 4 – Waves, Topic 5 – Light and the electromagnetic spectrum, Topic 6 – Radioactivity.</p> <p>Paper 6: Physics 2 Content assessed Topic 1 – Key concepts of physics, Topic 8 – Energy - Forces doing work, Topic 9 – Forces and their effects, Topic 10 – Electricity and circuits, Topic 12 – Magnetism and the motor effect, Topic 13 – Electromagnetic induction, Topic 14 – Particle model, Topic 15 – Forces and matter.</p>		
mer	Revision and booster sessions for GCSE Exams	As above		In GCSE Exams. Pupils will sit 6 exams (2 Biology, 2 Chemistry and 2 Physics) each exam will be 1 hour 10mins long.
mer	Revision and booster sessions for GCSE Exams	As above		As above





## Curriculum Map Year 11 Triple Science (GCSE Biology, Chemistry and Physics)

**Science Intent Statement** - The Science department at Sale High School follows a 5 year in depth, knowledge rich Science curriculum which covers all aspects of the National Curriculum, supported by using the Exploring Science Year 7 – 9 structure. At Key Stage 4 we offer both Combined and Triple Science GCSEs through the Edexcel exam board. Practicals play a key role in developing pupil's skills, practicals will be used to develop scientific enquiry skills collecting, recording and processing data. The Science curriculum is further enriched through Science club, Sale Scholars, Physics Olympiads and Science ambassadors.

We have a high level of pupils opting to take triple Science and great progression onto Science based A levels and University courses, we believe this is due to having high expectations, strong work ethic and most importantly our desire to develop pupils love for Science and thirst for knowledge.

### Why study Science?

**"I learn science because:**

- **It develops my analytical and problem-solving skills.**
- **It increases my fundamental knowledge, linked to real life situations**
- **It helps me to develop my curiosity about the world around us."**

**Cultural capital/enrichment** - : Pupils have the opportunity to attend revision sessions as per timetable (this is published fully after Christmas and includes morning, lunch time and half term revision sessions). Pupils also have the opportunity to continue their science ambassador roles from year 10 or even apply to be one.

**Please note that pupils will study all three sciences across the 2 years. At the end of the two years pupils will complete 6 exams (2 x Biology, 2 x Chemistry and 2 x Physics) This Curriculum map covers what they will learn for GCSE Biology, Chemistry and Physics in Year 10.**

Half term	Topic	Key knowledge	Key skills I will learn in this topic	Assessment opportunities (Summative and formative) Key pieces
Autumn	<p><b>Biology Topic 8</b> – Exchange and transport in animals</p> <p><b>Biology Topic 9</b> – Ecosystems and material cycles</p> <p><b>Chemistry</b> Topics 17 -19 Groups in the periodic table, rates of reaction, heat energy and chemical changes.</p>	<p><b>Biology</b> Pupils will learn: -how alveoli are adapted for gas exchange by diffusion between air in the lungs and blood in capillaries. -how the structure of the blood is related to its function. - how the structure of the blood vessels are related to their function. -how the structure of the heart and circulatory system is related to its function. -cellular respiration is an exothermic reaction which occurs continuously in living cells to release energy for metabolic processes, including aerobic and anaerobic respiration. -the differences between aerobic and anaerobic respiration. -the different levels of organisation from individual organisms, populations, communities, to the whole ecosystem. -how communities can be affected by abiotic and biotic factors. -the importance of interdependence in a community. -how some energy is transferred to less useful forms at each trophic level and that this affects the number of organisms at each trophic level, limits the length of a food chain and determines the shape of a pyramid of biomass in an ecosystem. -how the survival of some organisms is dependent on other species, including parasitism and mutualism.</p>	<p>Pupils will learn: -Appropriate experimental techniques to complete required investigations. - how to... Investigate the rate of respiration in living organisms Investigate the relationship between organisms and their environment using field-work techniques, including quadrats and belt transects.</p> <p>Investigate the proportion of oxygen in the atmosphere. Investigate the presence of water vapour and carbon dioxide in the atmosphere. Investigate the volume of air used up and products formed when candles are burned. Carry out the test for oxygen. Investigate the effects of changing the conditions of a reaction on the rates of chemical reactions by: a measuring the production of a gas (in the reaction</p>	<p>Baseline 30 mark knowledge test Biology, Chemistry and Physics.</p> <p>Literacy task – 6 mark question based on electricity review.</p> <p>End of topic test -Biology Topic 8</p>

<p><b>(Review content not taught in Year 10)</b></p> <p><b>Chemistry Topics 20 &amp; 21</b> – Fuels, earth and atmospheric science. <b>Start</b></p>	<ul style="list-style-type: none"> <li>-the positive and negative human interactions within ecosystems and their impacts on biodiversity.</li> <li>-the benefits of maintaining local and global biodiversity, including the conservation of animal species and the impact of reforestation.</li> <li>-how different materials cycle through the abiotic and biotic components of an ecosystem.</li> <li>-the importance of the carbon cycle, including the processes involved and the role of microorganisms as decomposers.</li> <li>-the importance of the water cycle, including the processes involved and the production of potable water in areas of drought including desalination.</li> <li>-how nitrates are made available for plant uptake, including the use of fertilisers, crop rotation and the role of bacteria in the nitrogen cycle.</li> <li>-the use of indicator species as evidence to assess the level of pollution</li> <li>-the effects of temperature, water content and oxygen availability on the rate of decomposition in food preservation.</li> <li>-the effects of temperature, water content and oxygen availability on the rate of decomposition in composting.</li> </ul> <p><b>Chemistry Groups is continued from Year 10 Triple – please see year 10 for full details.</b></p> <p>Pupils will learn:</p> <ul style="list-style-type: none"> <li>-that hydrocarbons are compounds that contain carbon and hydrogen only.</li> <li>-crude oil is a complex mixture of hydrocarbons and that crude oil is an important source for fuels and feedstock for the petrochemical industry.</li> <li>-the separation of crude oil into simpler, more useful mixtures is by the process of fractional distillation, including the names and uses of the fractions.</li> <li>-how hydrocarbons in different fractions differ from each other and are mostly members of the alkane homologous series.</li> <li>-an homologous series is a series of compounds which have the same general formula, differ by CH<sub>2</sub> in molecular formulae from neighbouring compounds, show a gradual variation in physical properties and have similar chemical properties.</li> <li>-the complete combustion of hydrocarbon fuels is a reaction in which carbon dioxide and water are produced and energy is given out.</li> <li>-the incomplete combustion of hydrocarbons can produce carbon and carbon monoxide and the problems associated with carbon monoxide and soot.</li> <li>-how impurities in some hydrocarbon fuels result in the production of sulfur dioxide and some of the problems associated with acid rain caused when sulfur dioxide dissolves in rain water.</li> <li>-when fuels are burned in engines, oxygen and nitrogen can react together at high temperatures to produce oxides of nitrogen, which are pollutants.</li> <li>-the advantages and disadvantages of using hydrogen, rather than petrol, as a fuel in cars</li> <li>-why cracking involves the breaking down of larger, saturated hydrocarbon molecules (alkanes) into smaller, more useful ones, some of which are unsaturated (alkenes) and why cracking is necessary</li> <li>-that the gases produced by volcanic activity formed the Earth's early atmosphere.</li> <li>-that the Earth's early atmosphere was thought to contain little or no oxygen, large amounts of carbon dioxide, water vapour and small amounts of other gases.</li> </ul>	<p>between hydrochloric acid and marble chips) b observing a colour change (in the reaction between sodium thiosulfate and hydrochloric acid) the chemical test for oxygen</p> <p>Literacy skills: answering extended writing GCSE questions.</p> <p>Maths Skills: Calculate the rate of diffusion using Fick's law: surface area concentration difference diffusion thickness of membrane rate of <math>\times \alpha 1a 3a, 3d</math> Calculation of surface area : volume ratio. Calculate heart rate, stroke volume and cardiac output, using the equation cardiac output = stroke volume <math>\times</math> heart rate how to determine the number of organisms in a given area using raw data from field-work techniques, including quadrats and belt transects. Calculate rate changes in the decay of biological material Calculate the efficiency of energy transfers between trophic levels and percentage calculations of biomass Drawing and interpreting appropriate graphs from data to determine rate of reaction. Determining gradients of graphs as a measure of rate of change to determine rate. Extract and interpret information from charts, graphs and tables. Calculate the energy change in a reaction given the energies of bonds (in kJ mol<sup>-1</sup>)</p>	<p>End of Topic test – Biology topic 9.</p> <p>Spelling Bees. Chemistry Topics 17,18 and 19 - Groups, rates of reaction and heat energy changes</p> <p>End of topic test - Chemistry Topics 20 &amp; 21 – Fuels, earth and atmospheric science.</p> <p>Literacy task – 6 mark question based on electrolysis review</p>
--	---	---	---

		<p>how the earth cooled and condensation of water vapour formed oceans.</p> <ul style="list-style-type: none"> <li>-how the amount of carbon dioxide in the atmosphere was decreased when carbon dioxide dissolved as the oceans formed.</li> <li>-how the growth of primitive plants used carbon dioxide and released oxygen by photosynthesis and consequently the amount of oxygen in the atmosphere gradually increased.</li> <li>- how various gases in the atmosphere, including carbon dioxide, methane and water vapour, absorb heat radiated from the Earth, subsequently releasing energy which keeps the Earth warm: known as the greenhouse effect.</li> <li>-the evidence for human activity causing climate change and the potential effects on the climate with increased levels of carbon dioxide and methane generated by human activity, including burning fossil fuels and livestock farming.</li> <li>-the composition of today's atmosphere.</li> </ul>		
atumn	<p><b>Chemistry Topics 20 &amp; 21</b> – Fuels, earth and atmospheric science. <b>Finish</b></p> <p><b>Chemistry Topics 22, 23 &amp; 24</b> - Hydrocarbons, alcohols, carboxylic acids and polymer.</p> <p><b>Physics Topics 8, 9, 10 and 11</b> - Energy, forces and their effects and Electricity and circuits and static electricity - Finish</p> <p><b>Physics Topic 12 &amp; 13</b> Magnetism, motor effect and</p>	<p><b>Please see details above for chemistry topics 20 and 21.</b></p> <p><b>Chemistry</b> Pupils will learn:</p> <ul style="list-style-type: none"> <li>-the formulae and structures of the alkanes, methane, ethane, propane and butane, and draw the structures of these molecules, showing all covalent bonds.</li> <li>- the difference between saturated and unsaturated molecules.</li> <li>-the formulae of molecules of the alkenes, ethene, propene, butene, and draw the structures of these molecules, showing all covalent bonds.</li> <li>-the addition reaction of ethene with bromine.</li> <li>-how bromine water is used to distinguish between alkanes and alkenes.</li> <li>- the complete and incomplete combustion reactions of alkene and alkanes.</li> <li>-what a polymer and a monomer are and examples of polymerisation reactions.</li> <li>- how addition and condensation polymerisation reactions take place, including products formed.</li> <li>- examples of polymers linked to their properties and uses.</li> <li>-problems associated with polymers.</li> <li>-that DNA is a polymer made from four different monomers called nucleotide, starch is a polymer based on sugars and proteins are polymers based on amino acids</li> <li>-the formulae of molecules of the alcohols, methanol, ethanol, propanol and butanol and draw the structures of these molecules, showing all covalent bonds.</li> <li>-the functional group in alcohols is –OH and that alcohols can be dehydrated to form alkenes.</li> <li>-the formulae of molecules of the carboxylic acids, methanoic, ethanoic, propanoic and butanoic acids, and draw the structures of these molecules, showing all covalent bonds.</li> <li>-the functional group in carboxylic acids is –COOH and that solutions of carboxylic acids have typical acidic properties.</li> <li>-ethanol can be oxidised to produce ethanoic acid.</li> <li>-members of a given homologous series have similar reactions because their molecules contain the same functional group.</li> <li>-the production of ethanol by fermentation of carbohydrates in aqueous solution, using yeast to provide enzymes.</li> <li>-how to obtain a concentrated solution of ethanol by fractional distillation of the fermentation mixture.</li> </ul>	<p>Pupils will learn:</p> <ul style="list-style-type: none"> <li>-Appropriate experimental techniques to complete required investigations.</li> <li>- how to....</li> </ul> <p>Prepare a solution of ethanol by fermentation.</p> <p>Core Practical: Investigate the temperature rise produced in a known mass of water by the combustion of the alcohols ethanol, propanol, butanol and pentanol</p> <p>Investigate the forces of attraction and repulsion between charged objects.</p> <p>The use of plotting compasses to show the shape and direction of the field of a magnet and the Earth's magnetic field.</p> <p>Literacy skills: answering extended writing GCSE questions.</p> <p>Maths Skills: Recall and use Fleming's left-hand rule. Recall and use the equations:force on a conductor at right angles to a magnetic field carrying a current (newton, N) = magnetic flux density (tesla, T or newton per ampere metre, N/A m) × current (ampere, A) × length (metre, m) <math>F = B \times I \times l</math> *potential difference across primary coil (volt, V) × current in primary coil (ampere, A) = potential difference across secondary coil (volt, V) × current in secondary coil (ampere, A) <math>P = I \times V</math> <math>V \times I = V \times I</math></p>	<p>Winter exam – paper 1 Biology, Chemistry and Physics.</p> <p>Literacy task – key question from exam paper1.</p> <p>Spelling bees – paper 1 key words</p> <p>End of topic test - Chemistry Topics 22, 23 &amp; 24 - Hydrocarbons, alcohols, carboxylic acids and polymer.</p>

	<p>electromagnetic induction</p>	<p><b>Physics Topics 8, 9 10,11 please see Year 10 (any content not covered in Year 10 will be covered or reviewed)</b>  <b>Physics Topic 12 and 13</b>  Pupils will learn:</p> <ul style="list-style-type: none"> <li>- that unlike magnetic poles attract and like magnetic poles repel.</li> <li>- the uses of permanent and temporary magnetic materials and the difference between permanent and induced magnets.</li> <li>-the shape and direction of the magnetic field around bar magnets and for a uniform field.</li> <li>- how the behaviour of a magnetic compass is related to evidence that the core of the Earth must be magnetic.</li> <li>-that a current can create a magnetic field and that the strength of the field depends on the size of the current and the distance from the long straight conductor.</li> <li>-how inside a solenoid the fields from individual coils add together to form a very strong almost uniform field along the centre of the solenoid and cancel to give a weaker field outside the solenoid.</li> <li>-that a current carrying conductor placed near a magnet experiences a force and that an equal and opposite force acts on the magnet.</li> <li>-that magnetic forces are due to interactions between magnetic fields.</li> <li>- the factors that affect the size and direction of an induced potential difference.</li> <li>-how an alternating current in one circuit can induce a current in another circuit in a transformer.</li> <li>-that a transformer can change the size of an alternating voltage.</li> <li>-why, in the national grid, electrical energy is transferred at high voltages from power stations, and then transferred at lower voltages in each locality for domestic uses and explain where and why step-up and step-down transformers are used in the transmission of electricity in the national grid.</li> <li>- the action of the microphone in converting the pressure variations in sound waves into variations in current in electrical circuits, and the reverse effect as used in loudspeakers and headphones.</li> </ul>		
<p>ring 1</p>	<p><b>Chemistry Topics 25 &amp; 26</b> - Quantitative and ion tests, plus properties of matter and nanoparticles.</p> <p><b>Physics Topic 14 and 15</b> Particle model, forces and matter</p>	<p><b>Chemistry</b>  Pupils will learn:</p> <ul style="list-style-type: none"> <li>-why the test for any ion must be unique.</li> <li>-flame tests to identify ions in solids.</li> <li>-tests to identify ions in solids or solution, aluminium ion, <math>Al^{3+}</math>, calcium ion, <math>Ca^{2+}</math>, copper ion, <math>Cu^{2+}</math>, iron(II) ion, <math>Fe^{2+}</math>, iron(III) ion, <math>Fe^{3+}</math> and ammonium ion, <math>NH_4^+</math> using sodium hydroxide solution.</li> <li>-the chemical test for ammonia.</li> <li>-tests to identify ions in solids or solutions, carbonate ion, <math>CO_3^{2-}</math>, using dilute acid and identifying the carbon dioxide evolved, sulfate ion, <math>SO_4^{2-}</math>, using dilute hydrochloric acid and barium chloride solution, chloride ion, <math>Cl^-</math>, bromide ion, <math>Br^-</math>, iodide ion, <math>I^-</math>, using dilute nitric acid and silver nitrate solution.</li> <li>-that instrumental methods of analysis are available and that these may improve sensitivity, accuracy and speed of tests</li> </ul>	<p>Pupils will learn:</p> <ul style="list-style-type: none"> <li>-Appropriate experimental techniques to complete required investigations.</li> <li>- how to...</li> </ul> <p>Core Practical: Identify the ions in unknown salts, using the tests for the specified cations and anions in.</p> <p>To link a simple kinetic theory model to explain the different states of matter (solids, liquids and gases) in terms of the movement and arrangement of particles</p> <p>Investigate factors affecting the generation of electric current by induction.</p> <p>Investigate the temperature and volume relationship for a gas.</p>	<p>Knowledge test – 30 marks – Biology, Chemistry and Physics.</p> <p>End of topic test Physics 12&amp;13 Magnetism, motor effect and electromagnetic induction.</p>

- how the properties of nanoparticulate materials are related to their uses including surface area to volume ratio of the particles they contain, including sunscreens.
- the possible risks associated with some nanoparticulate materials.
- the physical properties of glass and clay ceramics, polymers, composites and metals.
- why the properties of a material make it suitable for a given use and use data to select materials appropriate for specific uses

**Physics**

Pupils will learn:

the differences in density between the different states of matter in terms of the arrangements of the atoms or molecules.

- that when substances melt, freeze, evaporate, boil, condense or sublimate mass is conserved.
- how heating a system will change the energy stored within the system and raise its temperature or produce changes of state.
- definitions for the terms specific heat capacity and specific latent heat and explain the differences between them.
- ways of reducing unwanted energy transfer through thermal insulation
- the pressure of a gas in terms of the motion of its particle.
- the effect of changing the temperature of a gas on the velocity of its particles and hence on the pressure produced by a fixed mass of gas at constant volume.
- the term absolute zero,  $-273\text{ }^{\circ}\text{C}$ , in terms of the lack of movement of particles.
- the pressure of a gas produces a net force at right angles to any surface and changing the volume of a gas effects the rate at which its particles collide with the walls of its container.
- that stretching, bending or compressing an object requires more than one force.
- the difference between elastic and inelastic distortion.
- the difference between linear and non-linear relationships between force and extension
- why atmospheric pressure varies with height above the Earth's surface.
- the pressure in a fluid is due to the fluid and atmospheric pressure and the pressure in fluids causes a force normal to any surface.
- how pressure in fluids increases with depth and density
- why an object in a fluid is subject to an upwards force (upthrust) and that upthrust is equal to the weight of fluid displaced.
- how the factors (upthrust, weight, density of fluid) influence whether an object will float or sink.

- Investigate the stretching of rubber bands.
- Investigate the properties of water by determining the specific heat capacity of water and obtaining a temperature-time graph for melting ice.
- Investigate the densities of solid and liquids.
- Investigate the extension and work done when applying forces to a spring.

Literacy skills: answering extended writing GCSE questions

**Maths Skills:**

- Evaluate data from a flame photometer: a to determine the concentration of ions in dilute solution using a calibration curve b to identify metal ions by comparing the data with reference data.
- Compare the size of nanoparticles with the sizes of atoms and molecules.
- density (kilogram per cubic metre,  $\text{kg}/\text{m}^3$ ) = mass (kilogram, kg)  $\div$  volume (cubic metre,  $\text{m}^3$ )  $V = m \rho$
- \*change in thermal energy (joule, J) = mass (kilogram, kg)  $\times$  specific heat capacity (joule per kilogram degree Celsius,  $\text{J}/\text{kg } ^{\circ}\text{C}$ )  $\times$  change in temperature (degree Celsius,  $^{\circ}\text{C}$ )  $\Delta Q = m \times c \times \Delta \theta$
- \*thermal energy for a change of state (joule, J) = mass (kilogram, kg)  $\times$  specific latent heat (joule per kilogram,  $\text{J}/\text{kg}$ )  $Q = m \times L$
- Convert between the kelvin and Celsius scale.
- \*force exerted on a spring (newton, N) = spring constant (newton per metre,  $\text{N}/\text{m}$ )  $\times$  extension (metre, m)  $F = k \times x$
- \*energy transferred in stretching (joule, J) =  $0.5 \times$  spring constant (newton per metre,  $\text{N}/\text{m}$ )  $\times$  (extension (metre, m))<sup>2</sup>  $E = \frac{1}{2} k \times x^2$
- Use the equation:  $P_1 \times V_1 = P_2 \times V_2$  to calculate pressure or volume for gases of fixed mass at constant temperature.
- use the equation: pressure (pascal, Pa) = force normal to surface (newton, N)  $\div$  area of surface (square metre,  $\text{m}^2$ )
- Use the equation to calculate the magnitude of the pressure in liquids and calculate the differences in pressure at different depths in a liquid: pressure due to a column of liquid (pascal, Pa) = height of column (metre, m)  $\times$  density of liquid (kilogram per cubic

Literacy task – 6 mark key question from exam paper 2

Spelling bees – paper 1 and 2 key words.

End of topic test 25 and 26 Quantitative, ions tests plus properties of matter and nano particles.

PPE exam – paper 2 Biology, Chemistry and Physics. Physics

Walking talking exams to be completed by pupils themselves.

			metre, kg/m <sup>3</sup> ) × gravitational field strength (newton per kilogram, N/kg) $P = h \times \rho \times g$	
Year 2	Revision and booster sessions for GCSE Exams	<p>Pupils will be using lesson time to review previously studied content. This will be based around revision lessons, past paper exams and walking talking exams.</p> <p>Exams start in May and continue throughout June. Pupils will sit 6 exams</p>		GCSE Exams.
Summer	Revision and booster sessions for GCSE Exams	<p><b>Biology</b> Paper 1. The assessment is 1 hour and 45 minutes. Topic 1 – Key concepts in biology, topic 2 – Cells and control, topic 3 – Genetics, topic 4 – Natural selection and genetic modification and topic 5 – Health, disease and the development of medicines</p> <p>Paper 2. The assessment is 1 hour and 45 minutes. Topic 1 – Key concepts in biology, topic 6 – Plant structures and their functions, topic 7 – Animal coordination, control and homeostasis, topic 8 – Exchange and transport in animals and topic 9 – Ecosystems and material cycles</p> <p><b>Chemistry</b> Paper 1. The assessment is 1 hour and 45 minutes. Topic 1 – Key concepts in chemistry, topic 2 – States of matter and mixtures, topic 3 – Chemical changes, topic 4 – Extracting metals and equilibria and topic 5 – Separate chemistry 1.</p> <p>Paper 2. The assessment is 1 hour and 45 minutes. Topic 1 – Key concepts in chemistry, topic 6 – Groups in the periodic table, topic 7 – Rates of reaction and energy changes, topic 8 – Fuels and Earth science and Topic 9 – Separate chemistry 2</p> <p><b>Physics</b> Paper 1. The assessment is 1 hour and 45 minutes. Topic 1 – Key concepts of physics, topic 2 – Motion and forces, topic 3 – Conservation of energy, topic 4 – Waves, topic 5 – Light and the electromagnetic spectrum, topic 6 – Radioactivity and topic 7 – Astronomy.</p> <p>Paper 2. The assessment is 1 hour and 45 minutes. Topic 1 – Key concepts of physics, topic 8 – Energy - Forces doing work, topic 9 – Forces and their effects, topic 10 – Electricity and circuits, topic 11 – Static electricity, topic 12 – Magnetism and the motor effect, topic 13 – Electromagnetic induction, topic 14 – Particle model and topic 15 – Forces and matter.</p>		GCSE Exams.
Summer	Revision and booster sessions for GCSE Exams	<b>As above.</b>		GCSE Exams.