skipton girls' high school
an engineering academy

Curriculum Information
2020/21

Our approach to the curriculum is holistic, coherent and integrated. The curriculum we offer is personalised, challenging and aspirational. It is subject to an on-going and rigorous review process, using our analysis of data and the wider ambitions of teaching and learning to ensure that the curriculum is effective in meeting the needs of **all students**.

Curriculum design aims to maximise opportunities and reflect the high expectations of all students at Skipton Girls' High school. We also recognise the broader development of students and the importance of learning both in and outside the classroom and within and across subject areas. Structures are in place to ensure that all students can access the full curriculum offer and take-up of opportunities outside the classroom are monitored.

All staff at SGHS recognise their role in ensuring the quality of the curriculum offer and understand that outstanding teaching and learning is at the heart of a world class curriculum.

Year 7 – Key Stage 3

Maths

- Secure and deepen their understanding and confidence with number work and calculations
- Develop understanding of shape and space with 3D shapes and angle rules.
- Be introduced to algebra and progress into graphs and transformations
- Represent, summarise, and compare discrete data sets
- Lay down the foundations for correct mathematical notation

English

- Promote challenging fiction and non-fiction which encourages students to read and explore their world and imagination.
- Study writers from across the 19th-21st centuries, in a range of genres.
- Develop creative and analytical writing skills so that students can express themselves precisely, accurately, and in detail.
- Prepare students for potential later study in GCSE Drama and Media Studies, through study of writers such as Shakespeare and Orwell, theatrical forms including physical theatre and improvisation, and through analysis of a range of media forms.
- Units of work incorporate a range of reading, writing and drama, and fiction and non-fiction to encourage a breadth of cultural knowledge and understanding.

Science

Physics

Year 7 Physics kicks off with an introduction to Energy: the currency of the Universe. This is one of the most important ideas in Physics and will be used in every year group. Then we go on to look at forces and motion in space and the physics behind sending a probe to another planet. Next up is Waves, focussing specifically on Sound. We finish off with Electricity: making your hair stick up, building batteries from fruit and understanding simple circuits.

Chemistry

In Year 7 the Chemistry studied is covered by two broad contexts. Cook covers; safety, states of matter, change of state, chemical changes, fair testing and scientific models, all from a perspective the students will be familiar with, cooking. Forensics covers; making accurate observations, solutions, sublimation, separation techniques, diffusion, accuracy, precision and reliability, indicators, pH and reactions of acids.

Biology

In year 7 we will cover three broad topics. Firstly, we will cover variation, looking at what differences exist in organisms, the causes of these differences and the importance of these difference a population level. We will then move on to studying cells, considering the cell structure, cell processes, specialised cells and how cells work tighter as tissues and organs. Finally, we will look at keeping body systems and how they can be affected by factors such as diet and exercise.

Computing

The Computing syllabus has been designed to cover the three main areas of Digital Literacy, Computer Science and Information Technology. The students will be introduced to the IT skills they will need to support other subjects across the curriculum and will be introduced to programming, algorithms, some more complex elements of software packages and an understanding of computer hardware and how it works.

An overview of the Year 7 curriculum:

- An introduction to SGHS Systems, OneDrive, Email and Firefly
- Website Development – Students are taught to use the Dreamweaver software along with being introduced to CSS and HTML
- Computing Theory - An Introduction to Binary, Binary Addition and Computational Logic
- Micro:bit Projects - Students will be introduced to block programming using JavaScript Blocks. They are introduced to programming basics and then will develop these skills to create bespoke projects using the micro:bit technologies
- Theory - Fundamentals of computer systems. What's inside a computer? Looking at Hardware and Software.

Humanities

History

Year 7 study British History and its turning points from the causes and consequences of the Norman Conquest of 1066 to the changes brought about by the Industrial Revolution 1750 - 1900. This includes Feudalism, Magna Carta, the Black Death, and the religious roller-coaster of the English Reformation under the Tudors and Stuarts and the English Civil War. Year 7 is completed by applying all they have learnt to a local project on Skipton and how it reflects the historical developments that they have studied (e.g. building of the castle, church, development of the medieval town, and the impact of the industrial revolution on trade and transport in Skipton).

Geography

Year 7 study a programme of geography which balances human and physical aspects of the subject whilst also focussing on building a range of geographical skills.

Topics studied in year 7 geography are:

- My place – geography and me.
- Settlement – why do people live where they do?
- Tropical rainforests
- Africa, a diverse continent
- Flooding
- Climate change

We aim to take year 7 on fieldwork locally to complete a geographical investigation

Religious Studies

In Year 7 we take a thematic approach and students are introduced to some of the central beliefs and practices of Christianity, Islam and Hinduism through a study of a search for meaning, belief in God, sacred writings, pilgrimage and worship.

Modern Foreign Languages

French or Spanish

Students are taught to understand and respond to spoken and written language from a variety of authentic sources. They are encouraged to speak with increasing confidence, fluency and spontaneity, finding ways of communicating what they want to say, including through discussion and asking questions, and continually improving the accuracy of their pronunciation and intonation. As far as writing is concerned, by the end of Key Stage 3, students should write at varying length, for different purposes and audiences, using the variety of grammatical structures that they have learnt.

Through their studies, students can also discover and develop an appreciation of the culture in countries were French/Spanish is the official language.

The topics covered are:

Self, Family and Relationships, School, House and Home, Local Area and Environment, Hobbies and Free Time, Media, Holidays, Health and Work and Future Plans.

Design Engineering

To prepare our students for the rapidly changing world of Engineering, all students will develop a diverse range of skills. From understanding a range of materials and their

properties to how these can be manufactured into products using Computer Aided Design and Computer Aided Manufacture. The skills and topics learnt are designed to develop student's independence, creativity and problem solving abilities. Each project focus will be placed in context with a broader theme such as sustainability, energy conservation and new technologies such as automated/driverless vehicles.

- Autumn Term - Celebration themed tea light holder - Introduction to CAD & CAM
- Spring Term - USB LED Lamp – Introduction to Electronics
- Summer Term - Microbit Robot – Development of Programming & Systems

Food and Nutrition

Students start by studying Food Safety and Food Hygiene, which sets out the knowledge, understanding and skills required to cook and apply the principles of Food Science, Nutrition and Healthy Eating. Students study twelve skill groups through practical activities. Students learn how these food preparation skills can be applied and combined to achieve specific outcomes. All students will study:

- Hazards in the Food Environment
- Eat Well Guide: 8 Tips for Healthy Eating & Living
- Macronutrients & Micronutrients
- Nutritional Needs of Different Life Stages
- Special Dietary Needs/Requirements
- Staple Foods from Different Countries
- Popular Cultural Cuisine

PSHCE

The PHSCE curriculum is designed to address the personal development needs of all our students, in an age appropriate manner and as they progress through our school. The aim of our programme of study is to empower our young people with the knowledge and skills required to impact positively on both their current and future behaviours and choices so that they are and will become happy, healthy, kind, reflective and active citizens within their communities. That they have a deep understanding of the personal, local and international issues affecting modern life and are both well-informed and well-equipped to deal with the challenges they will face as they grow. At the heart of the curriculum is the focus on well-being and the acceptance and celebration of difference and diversity. Every topic is designed to have this key message at its core so that these fundamental messages of both respecting and looking after yourself and others remains central to its implementation.

The curriculum is shaped around and complies with the statutory guidance for Relationships and Sex Education, Health Education and Citizenship. It is also guided by the Careers Development Institute Framework. The five key strands of the curriculum are arranged as follows: relationships, health and well-being, the future, effective learning and the wider world. Whilst each theme is revisited in each year of study, the content and

delivery grow with complexity in order to reflect the evolving needs of students as they navigate their teenage years. It is designed so that specific topics are explored in response to specific milestones reached by the students. For example: topic 1 in year 7 explores building positive friendships and topic 1 in year 11 is built to prepare students in making their post-16 options.

In order to adopt a holistic view of student wellbeing and development, the PHSCE curriculum is linked to personal development across the school. It is complemented by other areas of the school curriculum such as RE, PE and Biology and also through planned tutor-time activities, gatherings, year group and whole school events.

Art and Design

Art and Design In line with the structure of the National Curriculum, students in Key Stage 3 will concentrate on investigating and making and developing their knowledge and understanding of the work of artists, designers and craftspeople. Students will develop a range of skills in a broad range of media, focus on the use of colour, mark making and printmaking and will develop the use of a sketchbook. They will develop their design skills and work in 2 and 3 dimensions using the work of a range of Artists and Architects for inspiration. During the Summer term, students will all experience and draw birds at first hand, whilst on a day trip to Harewood House. This will then inform their work in the classroom as they develop their ideas in 3 dimensions.

Music

In Year 7 students learn how to use the elements of music creatively through a variety of topics from a range of musical contexts. Performance, composition, and notation are explored through the topics of Elements of Music, Programme Music, Gamelan Music, Class Band and Composer's Toolkit.

Physical Education

Physical education is more than developing skills and physical capabilities. Our aim is to encourage positive interpersonal relationships that can help students develop a sense of social responsibility. Moreover, encourage intelligent performers, develop confidence, leadership, and integrity. Through physical education, students can learn to appreciate and respect ideas of others, develop effective collaboration and communication skills. Students who have a positive experience in physical education and sporting activities are more likely to become responsible, caring, global citizens, which is imperative for our society today, more than ever. Students in year 7 will have two lessons of PE per week. Following a broad and balanced curriculum of games, performance, and health-based lessons.

Skipton Girls High School
Year 7 Curriculum Intent 2020/21

Dates	Year 7 Curriculum Plan 2020/21							
	Bronte (Ruby)		Curie (Zoe)		Johnson (Zoe)		Franklin (Emily)	
	Wed P3 12.25-1.40	Fri P2 10.30- 11.45	Wed P3 12.25-1.40	Fri P2 10.30- 11.45	Wed P4 2.10- 3.25	Fri P1 8.55-10.10	Wed P4 2.10- 3.25	Fri P1 8.55-10.10
14th Sept - 22nd Oct	(6) Indoor Athletics (baseline)	(5) Badminton	(6) Indoor Athletics (baseline)	(5) Innovative Games	(6) Indoor Athletics (baseline)	(5) Innovative Games	(6) Indoor Athletics (baseline)	(5) Badminton
TTD = Fri 23rd Oct October ½ Term = 23rd - 30th Oct								
2nd Nov - 11th Dec	(6) Dance	(6) Innovative Games	(6) Fitness & Well-being	(6) Badminton	(6) Dance	(6) Badminton	(6) Fitness & Well - being	(6) Innovative Games
Christmas Activity Lesson = Weds 16th Dec Christmas Holidays = 18th Dec - 1st Jan								
4th Jan - 12th Feb	(6) Fitness & Well-being	(6) Netball	(6) Dance	(6) Football	(6) Fitness & Well-being	(6) Netball	(6) Dance	(6) Football
Feb ½ Term = 15th - 19th Feb								
22nd Feb - 26th March	(5) Tennis	(5) Football	(5) Gymnastics	(5) Netball	(5) Tennis	(5) Football	(5) Gymnastics	(5) Netball
Easter Holidays = 26th March - 9th April								
12th Apr - 21st May	(6) Gymnastics	(5) Striking & Fielding	(6) Tennis	(5) Hockey	(6) Gymnastics	(5) Striking & Fielding	(6) Tennis	(5) Hockey
Games/Activities Week 24th - 28th May May ½ Term = 28th May - 4th June								
7th June - 16th July	(6) Athletics	(6) Hockey	(6) Athletics	(6) Striking & Fielding	(6) Athletics	(6) Hockey	(6) Athletics	(6) Striking & Fielding
Games/Activities Week 19th - 23rd July Summer Holidays = 23rd July								

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Skipton Girls High School
Year 7 Curriculum Intent 2020/21

Theoretical Content

Activity	GCSE Related Theory	Cross Curricular Links
Indoor Athletics	- Goal Setting; be able to understand the importance of setting goals - Name the components of fitness	- Maths; measuring distances
Badminton	- Sportsmanship	- Maths; trajectory of the shuttle
Dance	- Warm up - Cool Down	- Music; beat/tempo/rhythm/peer assessment/evaluation - Drama; expression/movement/confidence /peer assessment/evaluation
Innovative games	- Tactics - Reasons why people take part in PA & sport	- History; war tactics - Geography; games played in different parts of the world
Fitness & Well - being	- Pulse Rate - Components of Fitness	- Science - cardiovascular system
Netball	- Conduct of Performers	- RS; Humanity - Languages; different customs across the globe
Tennis	- Immediate effects of exercise	- Sciences; body systems
Football	- Females in sport	- History; women's rights
Gymnastics	- Injury Prevention	- Science; body systems
Striking & Fielding	- Factors that affect participation (facilities/location) - Tactics	- History; war tactics
Athletics	- Warm up - Cool Down	Maths; measuring distance/angles Sciences; Body systems/biomechanics
Hockey	- Positional energy requirements - Sportsmanship & personal conduct	- Sciences; energy systems - RS; Humanity

Year 8 – Key Stage 3

Maths

- Work with powers, roots and scientific forms of number
- Develop their understanding of proportion and proportional change
- Explore 2D and 3D circular shapes
- Improve their algebraic manipulation skills, including solving equations
- Generate sequences and linear graphs
- Represent, summarise and compare continuous data sets
- Learn about experimental and theoretical probability
- Begin to explore relationships between angles in geometric figures

English

- Promote challenging fiction and non-fiction which encourages students to read and explore their world and imagination.
- We study a range of thematic units (e.g. 'Adventure'), in which students read and craft writing on the theme, including fiction and non-fiction.
- In preparation for possible GCSE Drama or Media Studies, we incorporate further work on devising theatrical performances from existing stimulus, and production of media forms including magazines.
- Students study Shakespeare, interpreting his work from a literary, and dramatic, perspective, and further developing their understanding of his historical and social contexts.
- Students regularly write at length, both creatively and analytically, to encourage their independent thinking, reflection and self-editing.

Science

Physics

At the start of Year 8 we look at Energy in the home, studying how Physics can help calculate and reduce the amount spent on electricity and gas. Next come light, colour and how our eyes work. Then we look at magnetism and electromagnetism: how compasses help us to navigate and how electromagnets are used in the creation of speakers in sound systems. The Physics of motion comes next. Then we look at Space and our place in the universe, starting with Earth, then the Solar System, then our galaxy and finally the universe as a whole. Year 8 finishes with a brief look at Particle Physics, one of the most exciting areas of Physics currently.

Chemistry

In Year 8 we look at atoms, elements and compounds, conservation of mass and balancing equations, the periodic table, metals, combustion, fuels and thermal decomposition. We revisit acids and neutralisation making use of the skills in balancing equations learned earlier in the year. We look at energy transfer in reactions covering exothermic and endothermic changes including the contexts of displacement reactions and the extraction of metals. We complete the year eight course by looking at materials including rocks and the rock cycle.

Biology

Year 8 will continue where they left off in year 7 and cover two contexts for learning. The first is 'The Circular Economy', which is underpinned by the idea of recycling as much waste as possible to minimise the negative impacts of humans upon the environment, but they do this through consideration of how living systems are 'non-linear', exploring the important concept of cycling in Biology. They study the crucial processes of photosynthesis and respiration, engaging in experiments to ascertain whether the leaves of photosynthetic plants store starch and how light intensity affects the rate of photosynthesis, as well as plant reproduction as an introduction to life cycles.

The second context is entitled 'Women in Science', named as such in order to link to the pastoral system at SGHS: we begin by looking at the life and work of Rosalind Franklin, who played a key role in discovering the structure of the hugely important molecule DNA, yet did not receive the Nobel prize as her male colleagues did because the role of women in Science was, at that time, massively overlooked. Once students have learnt about the structure of DNA and the concept of the gene, they consider its role in heredity, variation between organisms, selection – both natural and artificial, extinction and biodiversity. Students also develop key Working Scientifically skills in investigation planning and data collection and analysis.

Computing

Throughout Year 8 students will continue to study Computing and build upon the skills they have been introduced to in Year 7. In Year 8, the curriculum still focuses on the three main strands of the National Curriculum - Digital Literacy, Computer Science and Information Technology. This year is used to develop more programming skills, including the introduction of textual programming.

An overview of the Year 8 curriculum:

- An introduction to the development of algorithms and programming constructs through the use of Flowol.
- Students will be introduced to Python Programming through a series of teacher led programming exercises including the development of their own bespoke programs
- Spreadsheet Modelling – Students will complete a series of lessons looking at the basic

functions of spreadsheet modelling which will lead to some of the more complex themes and the introduction of some of the basic programming constructs.
- Theory - Ethics - Students will consider the Ethical and Moral implications of Computers and will run a series of debates on this area.

Humanities

History

Year 8 explores the concept of 'empire' and global empires with a particular focus on evaluating the causes and impact of the British Empire. We then examine slavery and the trade triangle and its impact on individuals and the world. This is followed up with an exploration of the subsequent fight for equality with a specific focus on the Civil Rights movement in America and its progress. Students go on to analyse in-depth the causes and consequences of WW1 including the Treaty of Versailles and the rise of the Nazis in Germany and evaluate the impact of a totalitarian state on the German people. Year 8 complete Key Stage 3 by creating their own individual project on a self-selected aspect of WW2 using the historical skills they have learnt.

Geography

Students will study a range of Human and Physical themes throughout Year 8 whilst developing a range of key geographical skills. All students will study:

- Population and Migration
- Tectonics (Focus on earthquakes, volcanoes and tsunamis)
- Tourism (Global to local scales)
- Fieldwork Opportunity – Investigate the impacts of tourism in Malham and management strategies in place in response to this

Religious Studies

In Year 8 we continue with a thematic approach, but the students are encouraged to explore further the issues of commitment, identity and belonging through a study of the figure of Jesus and the relevance of Christianity in twentieth century Britain. Students also study the religions of Sikhism and Judaism. Finally, we introduce the students to philosophy and consider some key questions such as:

- Why are we here?
- What happens after death?
- Is God real?

Modern Foreign Languages

French or Spanish

Students are taught to understand and respond to spoken and written language from a variety of authentic sources. They are encouraged to speak with increasing confidence, fluency and spontaneity, finding ways of communicating what they want to say, including through discussion and asking questions, and continually improving the accuracy of their pronunciation and intonation. As far as writing is concerned, by the end of Key Stage 3, students should write at varying length, for different purposes and audiences, using the variety of grammatical structures that they have learnt.

Through their studies, students can also discover and develop an appreciation of the culture in countries where French/Spanish is the official language.

The topics covered are:

Self, Family and Relationships, School, House and Home, Local Area and Environment, Hobbies and Free time, Media, Holidays, Health and Work and Future Plans.

German

In addition to French or Spanish, some students will have the opportunity to use two of their language lessons per fortnight to study German,

The topics covered are:

Introducing myself and my family, Free time activities, School, Food and Drink, Where I live

The main grammar points covered are: German word order, an introduction to the use of cases (nominative / accusative / dative), the present tense, the future tense and giving opinions.

Design Engineering

Building on the skills developed in Year 7, students will now apply those skills in new contexts. New skills and knowledge in Year 8 include PCB design, soldering and the introduction of 3D Computer Aided Design. The projects are designed to reinforce learning from Year 7 and develop students understanding. All projects will also have a broader context theme such as electronic products, materials recycling and automation.

- Autumn Term – Electronic Timer Project - Development of Electronics
- Spring Term – Mechanisms & Motion – Linkages and Levers
- Summer Term – Metal Pendant - Development of Engineering Skills

Food and Nutrition

Students will continue to develop their knowledge and understanding of Food Preparation and Nutrition skills and explore the principles of Food Science. Both practical and written elements of the course emphasise on the Science of Foods and include a range of Science based investigations. All students will study:

- Nutrition: Analyse the nutritional content using an online nutritional package (Food A Fact of Life)
- Investigate the functions of bread ingredients and carry out a Yeast Investigation
- Issues around Food: Social, Moral & Cultural
- Investigate the functions of cake ingredients and types of raising agents
- Foods from around the world and cultural cuisine

PSHCE

Please see Year 7 entry.

Art and Design

Students will develop their skills and techniques through investigating and making and incorporating their research and analysis of the work of artists, designers and craftspeople. Students will use sketchbooks, work from direct observation and learn new techniques and processes. They will develop their ability to analyse the work of artists and designers and use the work of others to inspire their own development and ideas. They will study units of work covering still life, shape and form, developing their drawing skills using a variety of media.

Music

In Year 8 we build on the skills introduced in Year 7 through study of the Blues, Ukulele work, working with chords and a case study on Reggae. Students are encouraged to perform, compose and appraise music in different genres and styles, using a variety of instruments.

Physical Education

Physical education is more than developing skills and physical capabilities. Our aim is to encourage positive interpersonal relationships that can help students develop a sense of social responsibility. Moreover, encourage intelligent performers, develop confidence, leadership, and integrity. Through physical education, students can learn to appreciate and respect ideas of others, develop effective collaboration and communication skills. Students who have a positive experience in physical education and sporting activities are more likely to become responsible, caring, global citizens, which is imperative for our society today, more than ever. Students in year 8 will have two lessons of PE per week. Following a broad and balanced curriculum of games, performance, and health-based lessons.

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Christmas Activity Lesson = Mon 14th & Wed 16th Dec/ Mon 14th & Friday 18th December Christmas Holidays = 18th Dec - 1st Jan								
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Year 8 Curriculum Intent 2020/21

Theoretical Content

Activity	GCSE Related Theory	Cross Curricular Links
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Badminton	- Sportsmanship & player conduct	- Maths; trajectory of the shuttle
Dance	- Warm up - Cool Down	- Music; beat/tempo/rhythm/peer assessment/evaluation - Drama; expression/movement/confidence /peer assessment/evaluation
Innovative games	- Tactics - Reasons why people take part in PA & sport	- History; war tactics - Geography; games played in different parts of the world
Fitness & Well - being	- Pulse Rate & how to measure MHR - Components of Fitness & examples	- Science - cardiovascular system
Netball	- Conduct of Performers	- RS; Humanity - Languages; different customs across the globe
Tennis	- Short term effects of exercise	- Sciences; body systems
Football	- Females in sport	- History; women's rights
Gymnastics	- Injury Prevention	- Science; body systems
Striking & Fielding	- Consequences of sedentary lifestyle - Tactics	- History; war tactics
Athletics	- Warm up - Cool Down	Maths; measuring distance/angles Sciences; Body systems/biomechanics
Hockey	- Positional energy requirements - Sportsmanship & personal conduct	- Sciences; energy systems - RS; Humanity

Year 9 – GCSE Bridge

Maths

Students will:

- Explore accuracy in calculations
- Develop their understanding of proportionality
- Improve skills of construction
- Discover, use and apply Pythagoras' Theorem
- Make geometric conjectures and proofs
- Work with linear and non-linear graphs
- Derive and solve 2 simultaneous equations, graphically and algebraically use tree diagrams to calculate probabilities
- Use Standard Form to represent numbers
- Further improve their algebraic skills, including solving equations, simplifying expressions and working with inequalities
- Explore more complex sequences

English

- Promote challenging fiction and non-fiction which encourages students to read and explore their world and imagination.
- Students regularly write independently, at length, to develop their critical thinking skills, reflection and self-editing.
- There is an increasing focus on "whole-text" skills in preparation for GCSE study. These novels and plays, including GCSE level texts such as The Great Gatsby continue to be supplemented with additional poetry, and extracts of fiction and non-fiction to provide a richer cultural understanding of the texts in context.
- Students also continue to regularly experience Media and Drama, through responses to their units of study.

Science

Physics

We follow a spiral curriculum for GCSE Physics, covering the 6 main topics of Physics across the course of the year, returning to them again in Year 10 and Year 11 and adding more depth and challenge each time. The year begins with an introduction to Forces, thinking about why changes happen in the universe. Then we move on to think about how our understanding of the atom has changed over the last 150 years, thinking about the progress of science and how ideas and theories are adapted in the light of new evidence. In

the space topic, we think about the solar system and the challenges of colonising other planets, as well as mysterious concepts of dark matter and energy. Then we look at electrical circuits and study the basics underpinning the technology that is so prevalent today. We will consider how electricity is generated and how it is transferred across the country. The year finishes with the waves topic, looking at the electromagnetic spectrum and its various uses, from studying stars to sunbeds.

Chemistry

In Year 9 we start the AQA GCSE Chemistry 8462 course. We look at atoms, elements, compounds, pure substances and mixtures, the periodic table, the extraction of metals focussing on their uses in real world situations. We develop and extend knowledge from KS3. We also introduce crude oil, alkanes and alkenes. We complete the year with a study of the atmosphere, how it has changed over time and how humans are thought to be changing it by looking at the greenhouse effect and methods of reducing our carbon footprint.

Throughout the GCSE course we complete a number of required practical activities, designed to develop experimental skills.

Biology

In year 9 students will begin studying their GCSE by looking at the cells and transport. They will learn the characteristics and structures of eukaryotic cells and prokaryotic cells and how these cells can be specialised. They will then learn how materials are transported into and out of cells by osmosis, active transport, and diffusion.

Following on from cells we will look at the principles of organisation in plants and animals and study the structure of function of organ systems in plants and animals and how they are adapted to carry out their function successfully.

We also study bioenergetics. Beginning, by looking at how energy is transferred in cells using respiration and photosynthesis, before considering the factors that might affect these chemical reactions.

Finally we will look at biology on the level of the ecosystem looking at the movement of energy and nutrients and how this is affected by biotic and abiotic factors.

Computer Science

Computer Science During Year 9 students will continue to build on the programming and digital literacy skills. There will be a deeper focus on programming skills and a look at some of the GCSE theory to give the students a good insight into the GCSE Computer Science syllabus which will be one of their option choices.

An overview of the Year 9 curriculum:

- Python Programming - Students to build upon their skills through completing a selection mini challenges and develop more complex programming skills
- Data Management – the design and implementation of a database with a user interface
- Photoshop – Students are introduced to Adobe Photoshop and will develop their skills in order to create their own Magazine Front Cover
- Exploration of Cyber Crime and cryptography and encryption

Humanities

History

Year 9 begins with an exploration of the background to and significance of the Holocaust. Year 9 go on to examine the changes and continuity of British society and politics through time through an examination of crime, punishment and the justice system. Beginning in Anglo-Saxon Britain to the present day - examining how the changing social, economic and political context and values of British society are reflected in the changes in the justice system over 1000 years. This is followed by an exploration of protest through time - examining why, how and with what success different groups have protested over time.

Geography

Students will study a range of Human and Physical themes throughout Year 9 whilst developing a range of key geographical skills. All students will study:

- The Coastal Environment
- Development and Globalisation
- Extreme Environments (Focus on polar and desert regions)
- Climate Change

AQA GCSE Religious Studies

All students start a GCSE in Religious Studies. We follow AQA specification A.

This involves an in-depth study of the beliefs and practices of Christianity and Buddhism.

Modern Foreign Languages

French or Spanish

Students follow the AQA GCSE specification and build upon previous years' study to broaden vocabulary and increase use of more complex grammatical structures. Students are examined in the four skills: Speaking, Listening, Reading and Writing.

Through studying a GCSE in a modern foreign language, students should develop their ability and ambition to communicate with native speakers in speech and writing. The study

of a modern foreign language at GCSE should also broaden students' horizons and encourage them to step beyond familiar cultural boundaries and develop new ways of seeing the world.

Students will develop their ability to communicate confidently and coherently with native speakers in speech and writing, conveying what they want to say with increasing accuracy, express and develop thoughts and ideas spontaneously and fluently as well as listen to and understand clearly articulated, standard speech at near normal speed. They will deepen their knowledge about how language works and enrich their vocabulary in order to increase their independent use and understanding of extended language in a wide range of contexts. Finally, they will gain a better understanding and appreciation of others' traditions and customs.

The topics covered are arranged in three themes which are re-visited all through Key Stage 4:

Theme 1: Identity and Culture
Topic 1: Me, my family and friends
Topic 2: Technology in everyday life
Topic 3: Free-time activities
Topic 4: Customs and festivals in French-speaking countries/communities

Theme 2: Local, National, International and Global Areas of Interest
Topic 1: Home, town, neighbourhood and region
Topic 2: Social issues
Topic 3: Global issues
Topic 4: Travel and tourism

Theme 3: Current and Future Study and Employment
Topic 1: My studies
Topic 2: Life at school/college
Topic 3: Education Post-16
Topic 4: Jobs, career choices and ambitions

German

In addition to French or Spanish, some students will have the opportunity to use two of their language lessons per fortnight to study German,

The topics covered are: Introducing myself and my family, Free time activities, School, Food and Drink, Where I live.

The main grammar points covered are: German word order, an introduction to the use of cases (nominative / accusative / dative), the present tense, the future tense and giving opinions.

Design Engineering

Students will continue to build upon the knowledge and skills that they have secured in Year 7 & Year 8. The level of demand is also designed to prepare students who wish to continue with Engineering at GCSE. The development of electronics/systems is key to the Mood Lamp project as this has the opportunity for students to program the circuit and the LED sequence. The mechanisms project is designed to broaden and develop student's knowledge around how things work. Finally, the SOLIDWORKS task is to develop students ability in using this industry standard software.

- **Autumn Term -** Mood Lamp - CAD/CAM project and development of systems knowledge
- **Spring Term** - 3D CAD – Skill development in SOLIDWORKS 3D software.
- **Summer Term** – Development of Mechanisms – Linkages and Levers – Jelly Bean Protect

Food and Nutrition

Students build upon a range of practical skills and explore the Science of foods in detail through several investigations. All students study the following:

- Food Poisoning Bacterium
- Food Preparation Techniques
- Deboning & Portioning a Chicken
- Filleting a Fish
- Nutritional Content of Meat Analogue's/Replacements
- Function of Protein in the Body
- Types of Fish Theory
- Types of Cooking Methods
- Analysis of the Different Types of Vegetarians
- Exploring the Functions of Eggs
- Macronutrients and Micronutrients (Sources, functions, effects of excess or deficiency)
- Social & Moral Issues Around Foods
- Nutritional Needs of Different Groups
- Energy Needs of Individuals
- Nutritional Profiling

PSHCE

Please see Year 7 entry.

Art and Design

Students will continue to develop their skills and techniques in order that they can make informed choices for GCSE. Work will focus on developing creativity and individual skills. They will develop their painting, drawing skills, photography, learn about working in mixed media and learn new printmaking techniques. They will develop their ability to analyse the

work of artists and designers, using the work of others to inspire their own development and ideas. They will explore artists and art movements through some study of art history.

Music

Students develop skills of performance, composition and appraisal by applying those to a wide range of musical genres as we explore 'The History of Music'. Each period of music is learnt by exploring and analysing stylistic features to help students form connections between styles.

Physical Education

Physical education is more than developing skills and physical capabilities. Our aim is to encourage positive interpersonal relationships that can help students develop a sense of social responsibility. Moreover, encourage intelligent performers, develop confidence, leadership, and integrity. Through physical education, students can learn to appreciate and respect ideas of others, develop effective collaboration and communication skills. Students who have a positive experience in physical education and sporting activities are more likely to become responsible, caring, global citizens, which is imperative for our society today, more than ever. Students in year 9 will have three lessons of PE over a two-week timetable. They will be following a broad and balanced curriculum of games, performance, and health-based lessons.

Skipton Girls High School
Year 9 Curriculum Intent 2020/21

Dates	Year 9 Curriculum Plan 2020/21				
	9B (Emily)	9R (Ruby)	9A (Fiona)	9V (Emily)	9E (Ruby)
	(a) Thurs P1 8.55 - 10.10 (b) Thurs P1 8.55 - 10.10 (b) Fri P4 2.10 - 3.25			(a) Thurs P2 10.10- 11.25 (a) Fri P4 2.10 - 3.25 (b) Thurs P2 10.10- 11.25	
Mon 14th - 9th Oct	Health & Well-being	Innovative Games	Badminton	Health & Well being	Innovative Games
Mon 12th Oct - 13th Nov	Innovative Games	Badminton	Health & Well - being	Innovative Games	Health & Well - being
Mon 16th Nov - Fri 11th Dec	Badminton	Health & Well being	Innovative Games	Badminton	Dance
Christmas lesson = Mon 14th - 18th Dec Holidays = Mon 21st - Fri 1st Jan					
4th Jan - 29th Jan	Dance	Netball/ volleyball	Gym	Dance	Badminton
Mon 1st Feb - Fri 5th March	Gym	Dance	Netball / volleyball	Netball / volleyball	Gym
Mon 8th March - 16th April	Netball / volleyball	Gym	Dance	Gym	Netball / volleyball
Mon 19th Apr - Fri 14th May	Athletics	Football	Striking & Fielding	Striking & Fielding	Football
Mon 17th May - Fri 18th Jun	Striking & Fielding	Athletics	Football	Football	Striking & Fielding
Mon 21st Jun - Fri 16th Jul	Football	Striking & Fielding	Athletics	Athletics	Athletics
Games/Activities Week 19th - 23rd July Summer Holidays = 23rd July					

½ Term = 26th - 30th Oct

½ Term = 15th Feb - 19th Feb

Easter = 29th March - 9th April

½ Term = mon 31st May - 4th June

Skipton Girls High School
Year 9 Curriculum Intent 2020/21

Activity	GCSE Related Theory	Cross Curricular Links
Badminton	- Sportsmanship & player conduct	- Maths; trajectory of the shuttle
Dance	- Reasons for taking part in PA/Sport/Dance	- Music; beat/tempo/rhythm/peer assessment/evaluation - Drama; expression/movement/confidence /peer assessment/evaluation
Innovative games	- Tactics - Reasons why people take part in PA & sport	- History; war tactics - Geography; games played in different parts of the world
Fitness & Well - being	- Components of Fitness & examples of testing & how to measure. - SMART Goals - Types of training	- Science - cardiovascular system
Netball	- Conduct of Performers	- RS; Humanity - Languages; different customs across the globe
Football	- Females in sport & media influence - Long term effects of exercise	- History; women's rights
Gymnastics	- Injury Prevention	- Science; body systems
Striking & Fielding	- Consequences of sedentary lifestyle - Tactics	- History; war tactics
Athletics	- Types of training - Lactic acid	Maths; measuring distance/angles Sciences; Body systems/biomechanics
Hockey	- Positional energy requirements aerobic/anaerobic - Sportsmanship & personal conduct	- Sciences; energy systems - RS; Humanity

Year 10 – Key Stage 4

Edexcel GCSE Maths

Students will:

- Be introduced to trigonometry
- Extend angle knowledge to apply to circle theorems
- Explore and calculate with powers, roots and surds
- Use iteration as a numerical method to solve equations
- Build on existing knowledge of algebra to extend to algebraic fractions and recurring decimals
- Explore further sequences including geometric progressions
- Extend knowledge of inequalities to be able to use graphical representations
- Interpret graphs to be able to find gradients and areas in the context of distance, speed and acceleration
- Consolidate knowledge of displaying and interpretting data through a range of different visualisation

AQA GCSE English

The department takes a conceptual approach to the teaching of English Language and English Literature GCSEs – we teach the skills necessary for the Language GCSE through the Literature texts, incorporating creative and persuasive writing as responses to the texts and their themes.

In Year 10, students will usually complete their Shakespeare text (a choice dependent on the class and their teacher), the AQA Love and Relationships poetry anthology, and one additional text – either the 19th century novel or modern play/novel. Non-fiction extracts will be used to support their contextual understanding and prepare them for Paper 2 of the Language course.

They will build on their existing analytical skills to develop independent essay writing, practicing regularly, and developing the vocabulary necessary to deal with dense and thought-provoking literature.

Separate Sciences

There is an expectation that most students will be entered for the separate sciences at GCSE.

AQA GCSE Physics

Year 10 Physics begins with the waves topic and we study sound and how sound can be used in pre-natal scanning. Then we consider the Physics of why the tomato sauce on pizza is much more likely to burn your mouth than the crust. Following that we move into the study of radioactivity, thinking about the disaster at Chernobyl: why did it happen and why is it still so dangerous? Next up we think about how compasses can be used for navigation and what causes lightning in the electricity and magnetism topic. In the forces and motion topic, we consider how you can weigh out the ingredients for a cake using just a 1kg bag of sugar, a rolling pin and a chopping board. Then we finish up the year thinking about space satellites: their purpose and orbits around our Earth.

AQA GCSE Chemistry

Year 10 students continue with the AQA GCSE Chemistry course. We cover structure and bonding, including nanotechnology & polymers. We move onto quantitative chemistry allowing students to apply their maths skills. We look at the rate of reactions. We revisit and develop understanding of energy changes throughout all topics students develop both practical and problem-solving skills. Finally, we investigate the reactions and properties of the different groups in the periodic table.

AQA GCSE Biology

In year 10 we will consolidate GCSE learning from year 9 and continue to expand our knowledge of the subject into more applied situations. To do this we will start by studying disease. This will include the idea that diseases can be communicable and non-communicable and how they affect the body systems we studied last year with particular examples in plants and animals. Following on from studying disease, we will consider that some diseases are genetic and what this means. To do this we will consider the idea of a gene, how it is inherited and how it may be expressed.

Humanities

Edexcel GCSE History

Year 10 study the three GCSE Edexcel Units - **Early Elizabethan England 1558-1588**, which examines the challenges Elizabeth faced in terms of religion, succession and plots both at home and abroad whilst building an empire in the Age of Exploration; **the Development of America West 1835-1895** examining the lives of Plains Indians, the development and settlement of the West, the impact of cattle ranching and railroads and the destruction of the Plains Indians way of life; and, explore in-depth the context and developments in early policing in the **'Whitechapel 1870-1900 case study'** unit.

AQA GCSE Geography

Year 10 will study the following topics as part of the AQA specification:

- The Challenge of Natural Hazards (Tectonics, Weather and Climate Change)
- The Changing Economic World
- Challenge of Resource Management (Focus on Water)
- Urban Issues and Challenges
- Fieldwork Opportunity – Students will study the characteristics of a local river and how they change with distance downstream

AQA GCSE Religious Studies

In the second year of the GCSE course students will study religious, philosophical and ethical arguments related to the following issues through both Christian and non- religious perspectives:

- Relationships and families
- Religion and life
- Religion, peace and conflict
- Religion, crime and punishment

AQA GCSE Business

The GCSE Business specification will give students the opportunity to explore real business issues and how businesses work. A relevant and diverse specification, students will consider the practical application of business concepts. The units provide opportunities to explore theories and concepts in the most relevant way, through the context of events in the business and economic world. In Year 10 students will study and investigate the purpose of business activity, the role of business enterprise and entrepreneurship, and the dynamic nature of business. Students will study the importance of external influences on business and how businesses change in response to these influences. Students will study the interdependent nature of business operations, human resources, marketing and finance.

GCSE Modern Foreign Languages

AQA GCSE French/Spanish/German

Students follow the AQA GCSE specification and build upon previous years' study to broaden vocabulary and increase use of more complex grammatical structures. Students are examined in the four skills: Speaking, Listening, Reading and Writing. The topics covered are arranged in three themes which are re-visited all through Key Stage 4:

Theme 1: Identity and Culture
Topic 1: Me, my family and friends

Topic 2: Technology in everyday life
Topic 3: Free-time activities
Topic 4: Customs and festivals in French-speaking countries/communities

Theme 2: Local, National, International and Global Areas of Interest
Topic 1: Home, town, neighbourhood and region
Topic 2: Social issues
Topic 3: Global issues Topic 4: Travel and tourism

Theme 3: Current and Future Study and Employment
Topic 1: My studies
Topic 2: Life at school/college
Topic 3: Education post-16
Topic 4: Jobs, career choices and ambitions

AQA GCSE Drama

GCSE Drama offers creativity, practical skills and written practice. Students develop key drama skills such as voice, stagecraft, movement and gesture, and improvisation.

Students devise pieces based on a stimulus, such as poem, song, or novel extract, keeping a written log of their process and evaluating their work. They also work on scripted work.

For their written examination, students work on a set text, and then write an evaluation of a theatrical performance they have seen.

Students also have an opportunity to focus on a technical element such as costume, lighting, and staging.

Eduqas GCSE Media

Students will study a broad range of media forms and products, providing a comprehensive and balanced study of the media that encompasses audio-visual, print-based and online forms, as well as exploring newer technologies such as gaming and the interrelationships between them.

- advertising and marketing
- film
- magazines
- music video and online, social and participatory media studied through a single music topic
- newspapers
- radio
- television
- video games

Component 1
Exploring the Media: Written examination: 1 hour 30 minutes: 40% of qualification

Component 2:
Understanding Media Forms and Products: Written examination: 1 hour 30 minutes: 30% of qualification

Component 3:
Creating Media Products: Non-exam assessment: 30% of qualification

AQA GCSE Engineering

Students taking the GCSE Engineering will complete both a coursework element, worth **40%** of the GCSE, and a 2-hour exam, worth **60%** of the GCSE. Students will build on their knowledge and skills for Key Stage 3 and will deepen their understanding further. The course is delivered with the theory being supported by practical application. All students in Year 10 will complete a focused practical task, which echoes the requirements for the controlled assessment in Year 11. The brief for their project is set on the 1st June in Year 10, students will then have 30 hours, under supervision, to complete a portfolio of evidence and a practical outcome based on the brief provided.

The coursework will combine the student's prior knowledge of 2D/3D CAD & CAM, materials and processes to design and make their project.

The theory element is broken down as follows and is fully detailed on Firefly in the form of a digital textbook:

- Engineering Materials
- Engineering Manufacturing Processes
- Systems
- Testing and Investigation
- The Impact of Modern Technologies
- Practical Engineering Skills

AQA GCSE Food Preparation & Nutrition

The Food Preparation & Nutrition course equips students with an array of culinary techniques, as well as knowledge of Nutrition, Food Traditions and Kitchen Safety. The course sets out the knowledge, understanding and skills required to cook and apply the principles of Food Science, Nutrition and Healthy Eating.

Students study twelve skill groups through practical activities and learn how these food preparation skills, can be applied and combined to achieve specific outcomes.

Throughout the course, students learn about the Science of Food, which forms the core basis of all the assessments undertaken. Students study the following modules over the two years:

1. Food, Nutrition & Health
2. Food Science
3. Food Safety
4. Food Choice
5. Food Provenance
6. Food Preparation & Cooking Techniques

There are two Non-Examination Assessments (NEA's) which form 50% of the qualification.

These controlled assessments are untaken in controlled time in school only.

NEA 1: Task 1: Food investigation (30 marks)

- Understanding of the working characteristics, functional and chemical properties of ingredients (Food Science).
- Practical investigations are a compulsory element of this NEA task.
- Written or electronic (1,500-2000 words) including photographic evidence of the practical investigation
- 10 hours Controlled Assessment
- 15% of the final GCSE marks

NEA 2: Task 2: Food preparation assessment (70 marks)

- Knowledge, skills and understanding in relation to the planning, preparation, cooking, presentation of food and application of nutrition related to the chosen task.
- Prepare, cook and present a final menu of three dishes within a single period of no more than three hours, planning in advance including how this will be achieved
- Written or electronic portfolio including photographic evidence of the three final dishes
- 20 hours Controlled Assessment
- 35% of the final GCSE marks

Written Exam: 1 hour 45 minutes:

- 100 Marks – 50% of GCSE
- Multiple choice questions (20 marks)
- Five questions each with several sub questions (80 marks)

PSHCE

Please see Year 7 entry.

AQA GCSE Art and Design

GCSE Art & Design Exam board AQA: Fine Art

Component 1 60%
Internally set, marked and externally moderated

Students will learn new skills, processes and a grounding in the principles of Art and Design; these tasks will include practical experimentation which will explore and develop the students' knowledge and skills within:

- Mark-making
- Observational drawing
- Painting
- Collage
- Printing
- Photography

Under a project titled the Natural Forms they will cover the 4 assessment objectives through researching and analysing the work of a variety of different artists and developing their skills and refining their work.

Assessment objectives:

AO1: Develop ideas through investigations, demonstrating critical understanding of sources.
AO2: Refine work by exploring ideas, selecting and experimenting with appropriate media, materials, techniques and processes.
AO3: Record ideas, observations and insights relevant to intentions as work progresses.
AO4: Present a personal and meaningful response that realises intentions and demonstrates understanding of visual language.

They will produce a final outcome for AO4 of their own choice using the influences and inspiration of work leading up to this.

Sustained Project
Students will pursue their own Sustained Project selected from one of the themes from a previous exam paper. They will cover the 4 assessment objectives through researching and analysing the work of different Artists and making relevant responses. Students will present their work in a sketchbook format.

Component 2 40%
Externally set task, internally marked and externally moderated

AQA GCSE Photography

Component 1 = 60% of the GCSE - Natural Forms / Double Exposure and short projects, plus Sustained Project

Component 2 = 40% of the GCSE - Externally set assignment (Year 11)

AO1: Develop ideas through investigations, demonstrating critical understanding of sources.
AO2: Refine work by exploring ideas, selecting and experimenting with appropriate media, materials, techniques and processes.
AO3: Record ideas, observations and insights relevant to intentions as work progresses.
AO4: Present a personal and meaningful response that realises intentions and demonstrates understanding of visual language.

Component 1 – Natural World and Double Exposure
Internally set, marked and externally moderated

You will explore:

- how to compose photographs – exploring composition – Fill the frame, rule of thirds, from above from below
- exploring depth of field
- Using DSLR cameras – Aperture and shutter speed etc
- Experimenting with different lens – fish eye and macro
- Researching and learning from different photographers
- Lighting
- using Photoshop to edit photographs
- an element of drawing – either digital or free hand or a combination of both

Sustained Project
Students will pursue their own sustained project selected from one of the themes from a previous exam paper. They will cover the 4 assessment objectives through researching and analysing the work of different Photographers and making relevant responses. Students will present their work in a ppt format.

Component 2 40%
Externally set task, internally marked and externally moderated

Edexcel GCSE Music

In Years 10 and 11 we aim to foster a greater sense of independence and musical competence as well as an ever greater appreciation of music. In Years 10 and 11 students follow the Edexcel specification and study set works from the 4 areas of study: Instrumental Music 1700-1820, Vocal Music, Music for Stage and Screen and Fusions. In addition to this they perform music as a soloist and as part of an ensemble and compose music to a brief set by the exam board as well as a piece of their own choice.

OCR GCSE Computer Science

The OCR GCSE Computer Science Qualification is taught in Year 10 and 11 should the students opt for Computer Science. The qualification builds on the knowledge, understanding and skills established through the Computer Science elements of the Key Stage 3 programme of study. The content has been designed not only to allow for a solid basis of understanding but to engage learners and get them thinking about real world application. The course is made up of three main elements; Paper 1 – Computer Systems (50%), Paper 2 - Computational thinking, algorithms and programming (50%) and a compulsory Programming Controlled Assignment must be completed as a required element of the course.

Unit 1:
Computer Systems

- Systems Architecture
- Memory
- Storage
- Wired and wireless networks
- Network topologies, protocols and layers
- System security
- System software
- Ethical, legal, cultural and environmental concerns

Unit 2:
Computational thinking, algorithms and programming

- Algorithms
- Programming techniques
- Producing robust programs
- Computational logic
- Translators and facilities of languages
- Data representation

AQA GCSE PE

Students opt to take GCSE PE throughout Year 10/11. At SGHS we follow the AQA Syllabus and there is a mixture of both theoretical and practical learning. The course is assessed with 40% Practical and 60% theory. Within practical lessons students will be assessed on three sports. During the theory lessons a variety of topics are covered including 'Applied Anatomy and Physiology' and 'Sports Psychology' to name but a few.

Core PE

Physical education is more than developing skills and physical capabilities but to encourage positive interpersonal relationships that can help students develop a sense of social responsibility. Moreover, encourage intelligent performers, develop confidence, leadership, and integrity. We believe that positive experiences in physical education will

inevitably provide the motivation for students to want to continue being active throughout their lifetime. Therefore, in year 10, students co-construct their curriculum and choose the programme of study that would interest them the most and they would like to follow for the year. This ensures all students are given the opportunity to take part in physical activity within the sports they enjoy and promote lifelong participation. Whether at home, school, or in the community, there is structured and unstructured time available for meeting physical activity requirements that contributes to student well-being. Students should feel motivated to make healthy lifestyle choices and be encouraged to participate in sporting activities within school and in their leisure time.

Pathway 1 = Competitive Games
Pathway 2 = Individual Activities
Pathway 3 = Sports Leadership.

Year 11 – KS4

Edexcel GCSE Maths

Students will

- Explore and use vector notation and use vector geometry to solve problems
- Know and use the equation of a circle to solve coordinate geometry problems
- Use and apply function notation, including use with graph transformations
- Extend knowledge of trigonometry and pythagoras to non right angles triangles and 3D
- Recognise and interpret graphs of exponential functions
- Sketch, interpret and manipulate graphs of quadratic functions.

AQA GCSE English

Students will complete the final whole text for their Literature course and begin to unpick the process of applying the skills learned to the examination-style questions for the Language course.

They continue to write regularly, both analytically and creatively, and further develop their response to unseen texts including poetry and non-fiction.

Students will also have to complete a brief presentation on a topic of their choice, as an additional endorsement for their Language GCSE. We guide students through a TEDTalk model, so that they can often access the top band, ensuring their presentation includes an argument thread throughout. This work also supplements the non-fiction writing skills tested on in the Language course.

Science

AQA GCSE Physics

We start Year 11 thinking about Energy, and just how many Mars Bars worth of energy you car uses up on your journey to school. Then we study gases and learn about how car engines work. Next up comes refraction and the Physics of glasses, contact lenses and telescopes. In the forces and motion topic, we consider the Physics of collisions and car safety features. The in the electricity and magnetism topic we think about how microphones and loudspeakers work. We finish the year thinking about the origins of the Universe and the Big Bang Theory, before moving into revision and preparation for the examinations.

AQA GCSE Chemistry

In Year 11 students explore analytical chemistry, studying ion tests. They also review the reactions of acids and develop skills in titration. Students also learn about the importance of assessing the sustainability of resources when evaluating materials for given functions.

Students develop further their knowledge of organic Chemistry including the study of biological molecules such as DNA. Finally, they complete the content by looking at equilibria and the importance of the Haber process & fertilisers. Students continue to develop their practical skills and will also revise content from Years 9 and 10 and develop their exam technique and hone their revision strategies prior to the exam.

AQA GCSE Biology

In Year 11, students will begin by studying the new specification content of health and disease, including plant disease. We will look at differences between communicable and non-communicable disease and identifying symptoms and spread of disease. We will then move onto coordination of plants and animals including the nervous system in animals and hormones in plants and animals and how they work to control organisms growth and responses. Students will also look at the new content of the eye and the brain and be able to label parts and describe the role of each part. They will then have the opportunity to link this to the other parts of the body, including the kidney and reproductive organs and how they communicate to respond appropriately to the environment.

Humanities

Edexcel GCSE History

Year 11 study GCSE Edexcel unit 'Weimar and Nazi Germany' exploring the political, social and economic issues of Weimar and the subsequent rise and control of the Nazi State with particular reference to different historical interpretations.

AQA GCSE Geography

Students will continue to student various Human and Physical themes from the AQA specification:

- River Landscapes in the UK continues from Year 10
- Glacial Landscapes in the UK
- The Living World (Ecosystems, tropical rainforests and cold environments)
- Geographical Issues Evaluation (Pre-release material)
- Fieldwork Opportunity – Impact of human activity in the Lake District

Modern Foreign Languages

AQA GCSE French/Spanish/German

Students follow the AQA GCSE specification and build upon previous years' study to broaden vocabulary and increase use of more complex grammatical structures. Students are examined in the four skills: Speaking, Listening, Reading and Writing.

The topics covered are arranged in three themes which are re-visited all through Key Stage 4:

Theme 1: Identity and Culture
Topic 1: Me, my family and friends
Topic 2: Technology in everyday life
Topic 3: Free-time activities
Topic 4: Customs and festivals in French-speaking countries/communities

Theme 2: Local, National, International and Global Areas of Interest
Topic 1: Home, town, neighbourhood and region
Topic 2: Social issues
Topic 3: Global issues Topic 4: Travel and tourism

Theme 3: Current and Future study and Employment
Topic 1: My studies
Topic 2: Life at school/college Topic 3: Education post-16
Topic 4: Jobs, career choices and ambitions

AQA GCSE Engineering

Please see Year 10 entry

AQA GCSE Business

The GCSE Business specification will give students the opportunity to explore real business issues and how businesses work. A relevant and diverse specification, students will consider the practical application of business concepts. The units provide opportunities to explore theories and concepts in the most relevant way, through the context of events in the business and economic world. Students will study the purpose of human resources, marketing and finance, their role within business and how they influence business activity.

AQA GCSE Food Preparation and Nutrition

Please see Year 10 entry

AQA GCSE Art and Design

Please see Year 10 entry

AQA GCSE Photography

Please see Year 10 entry

AQA GCSE PE

Students opt to take GCSE PE throughout Year 10/11. At SGHS we follow the AQA Syllabus and there is a mixture of both theoretical and practical learning. The course is assessed with 40% Practical and 60% theory. Within practical lessons students will be assessed on three sports. During the theory lessons a variety of topics are covered including 'Applied Anatomy and Physiology' and 'Sports Psychology' to name but a few.

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Pathway 1 = Competitive Games
Pathway 2 = Individual Activities
Pathway 3 = Mixed Games & Individual

PSHCE

Please see Year 7 entry.

A-Level

AQA History

'Unit 1H Tsarist and Communist Russia 1855- 1964' exploring the challenges facing the Tsarist regime and its eventual collapse, followed by the emergence of Communist dictatorship 1917-1941 and the rise and impact of the Stalinist system and the Great Patriotic War 1941-1964.

'Unit 2M Wars and Welfare: Britain in Transition 1905-1957' examines the Liberal Crises of 1906-1914; the Impact of World War I on the political, social and economic landscape of Britain; the political and economic issues of 1920s Britain; the Government reaction to the problems of the 1930s; and the impact of WW2 and reconstruction on Britain 1939-1957.

NEA - a coursework element worth 20% of the final mark which students individually select their own question based on the topic **'The Development of Anti-Semitism in Western Europe 1744-1884'** to answer in an independently researched and written essay of 4500 words..

AQA Politics

This AQA Politics A level course develops students' knowledge and understanding of the complexities of political systems, theories and concepts, and requires the ability to apply political principles to real life situations. It is examined in three 2 hour exams – all equally weighted. Students study three A Level modules based on 'The Government and Politics of the UK'; a comparative module 'The Government and Politics of the America'; and finally a module on 'Political Ideologies'. There is no coursework element.

AQA Geography

Students will study the AQA specification which comprises of 3 components:

- Component 1: Physical Geography (Water and Carbon Cycles/Glacial Systems and Landscapes)
- Component 2: Human Geography (Population and the Environment/Changing Places)
- Component 3: Independent Geographical Investigation (Planning Phase)
- Fieldwork opportunities in a range of human and physical settings (Hydrology study, socio-economic inequalities study, glacial evidence investigation)

In Year 13 students will continue to study the range of Human and Physical themes which are started in Year 12. They will also complete a 4000 word investigation based on a fieldwork study they have planned and conducted independently.

- Component 1: Physical Geography (Glacial Systems and Landscapes/Hazards)
- Component 2: Human Geography (Changing Places/Global Systems and Global Governance)
- Component 3: Independent Geographical Investigation (Completion)

OCR Religious Studies

Students follow the OCR Religious Studies syllabus. This has three components:

- Philosophy of Religion – e.g. philosophical language and thought, the problem of evil and soul, mind and body
- Religion and Ethics – e.g. ethical theories such as Natural Law & Situation Ethics, applied ethics such as Euthanasia and Business ethics, and topics such as conscience and meta-ethics.
- Developments in Christian thought – e.g. Christian moral principles and action, gender, pluralism and the challenges of secularism.

Business

Year 12 - AQA A Level Business

In September 2018 students will study the new AQA A Level Business course. The course is an exciting and dynamic subject that reflects the ever-changing nature of the business world. Students will study a wide range of business concepts and theories; from human resources, finance and marketing to business strategy, all of which will give them a winning edge in the employment market. The course aims to introduce students to the principles of business and how to set up a business, including researching the market and employing people. The course also aims to focus on the strategic management of larger organisations and exploring how businesses manage change. Assessment will be by examination at the end of the two year course.

Year 13 – AQA Level 3 Applied General: Extended Certificate in Applied Business

The qualification will give learners the opportunity to learn and understand a broad range of business and entrepreneurial knowledge and skills associated with working within a business enterprise. The learner will understand the way in which any venture in business (big or small) is a function of the relationship between its people, its marketing, its finance and its ability to deliver operationally upon its commitments. Students will undertake three units of work in Year 13. Two of the three units are coursework based e.g. producing a business plan and a writing a marketing communications report. Students will also study theoretical concepts related to managing and leading people this unit will assessed through an examination.

Modern Foreign Languages

Students follow the AQA specification and will develop confident, effective communication skills in French and a thorough understanding of the culture of countries and communities where French/Spanish/German is spoken. It develops an interest in, and enthusiasm for, language learning and encourages students to consider their study of the language in a broader context.

This four-unit specification requires students to develop their ability to write and speak in French/Spanish/German with accurate grammar and syntax for a range of purposes and to understand written or spoken French in a variety of contexts and genres.

AQA French

Current trends

- The changing nature of family
- The 'cyber-society'
- The place of voluntary work

Artistic culture

- A culture proud of its heritage
- Contemporary francophone music
- Cinema: the 7th art form

Current issues

- Positive features of a diverse society
- Life for the marginalised
- How criminals are treated

Political life

- Teenagers, the right to vote and political commitment
- Demonstrations, strikes – who holds the power?
- Politics and immigration

Works studied:

- Film : un long dimanche de fiançailles
- Book : Un sac de billes by Joseph Joffo

AQA Spanish

Hispanic society

- Modern and traditional values
- Cyberspace
- Equal rights

Artistic culture

- Modern day idols
- Region identity
- Cultural heritage

Multiculturalism

- Immigration
- Racism
- Integration

Political life

- Today's youth, tomorrow's citizens
- Monarchies and dictatorships
- Popular movements

Works studied:

- Film : el Laberinto del Fauno
- Book : la casa de Bernarda Alba by Federico García Lorca

AQA German

Aspects of German-Speaking society

- The changing state of the family
- The digital world
- Youth culture

Artistic culture

- Festivals and traditions
- Art and architecture
- Cultural life in Berlin-past and present

Multiculturalism

- Immigration
- Integration
- Racism

Political life

- Germany and the European Union
- Politics and Youth
- German re-unification and its consequences

Works studied:

- Film: Das Leben der Anderen
- Book: Andorra by Max Frisch

AQA English Language

Students explore introductory units on written and spoken language, developing their understanding of grammatical structures and analysis of language, aiming to become used to A Level standards of analysis and terminology.

They study a range of different topics across the two years, exploring the effect and impact on language of social groups, power relationships, ethnicity, gender, and regions, studying both spoken and written language. A further topic is language change since 1700, and how social, technological, political and cultural factors have sparked these changes.

During the two years, they produce a coursework portfolio including an investigation into an aspect of language they choose, and a piece of creative writing with accompanying commentary on their process.

PHSCE

Please see Year 7 entry.

OCR English Literature

Across the two years, students will study a range of literary texts over time, including 19th century poetry and drama, a Shakespeare play, and a conceptually-linked unit. This unit involves comparison of two novels, currently dystopian fiction, and exploring their place in a wider understanding of this genre over time.

Students also produce a coursework portfolio. This includes a comparative essay on two texts, and a further piece based on a third text. This piece can either be a close analysis, or a recreative piece writing in the author's style. The three texts cover all three genres – prose, poetry, and drama – and include at least one post-2000 text. The specific text choices vary from year to year, drawing on student and teacher interest and knowledge, which also offers flexibility for exceptional students to select their own, in negotiation with their teacher.

AQA Music (taught in collaboration with Ermysted's Grammar school)

In Year 12 students follow the AQA A Level Music course. They develop aural awareness and dictation skills as well as continuing to build on performing and composing skills acquired at GCSE level. In addition to this they analyse music from a range of styles and genres including popular music, western classical music and jazz.

OCR PE

A Level PE is taught at Ermysted's Grammar School. The OCR syllabus is followed and there are elements of both theory and practical assessments on the course. Students will focus

on their one main practical sport of which they will be assessed in worth 30%, however the majority of the weighting is in the theoretical element where 70% of the qualification is covered in areas including 'Physical factors effecting performance' and 'Psychological and socio-cultural themes in PE'.

AQA Psychology

The Psychology course focuses on many different perspectives that have been taken to the study of human behaviour, each of which offers a unique approach. We explore the six key approaches in psychology: biological psychology, behaviourism, social learning theory, cognitive psychology, psychodynamic and humanistic perspectives. There is also a strong emphasis on the growing field of biopsychology and the influence that our genetics, neurology and physiology has on thinking and behaviour.

The first year on the course aims to offer an introduction to the study of memory and forgetting, social influence, psychopathology and child development.

In the second year of study the field of enquiry broadens to give a deeper understanding of the ways in which psychological theory and research has been applied. Here, we have the opportunity to choose from such topics as: cognition and development, gender, relationships, schizophrenia, eating behaviour, stress, aggression, forensic psychology and addiction.

Alongside this, we will continue to address some of the wider debates and issues in psychology such as the gender and cultural bias that resides in psychological theory and the ethical issues concerning research. We also engage with the big philosophical questions regarding human behaviour: is behaviour inherited or learnt? Is freewill an illusion?

Underpinning all modern psychological theory is a firm foundation of rigorous research. Throughout the study of A Level Psychology, students will develop research skills and knowledge of the methodologies available for the investigation of human behaviour. These are as varied as the topics studied and range from the laboratory experiments devised by the early behavioural and cognitive psychologists to the in-depth case studies conducted by Sigmund Freud in his development of psychoanalytical theory. There is also a strong focus on the use of both quantitative and qualitative data and the implementation of descriptive and inferential statistics.

OCR Design Engineering

The content of this title is focused towards engineered and electronic products and systems; the analysis of these in respect of function, operation, components and materials, in order to understand their application and uses in engineered products/systems that have commercial viability. The course is broken down into 50% Exam and 50% Coursework. The examined weighting consists of 2 exams.

The skills and knowledge that students will learn are:

- Identifying requirements
- Learning from existing products and practice
- Implications of wider issues
- Design thinking and communication
- Material considerations
- Technical understanding
- Manufacturing processes and techniques
- Viability of design solutions
- Health and safety

AQA Art and Design

AQA Art and Design – Fine Art

The A Level qualification is split into 2 parts:

Component 1 = 60% - internally marked and externally moderated
In Component 1, students develop work based on an idea, issue, concept or theme leading to a finished outcome or a series of related finished outcomes. Practical elements should make connections with some aspect of contemporary or past practice of artist(s), designer(s), photographers or craftspeople and include written work of no less than 1000 and no more than 3000 words which supports the practical work.

Component 2 = 40% - externally set, internally marked and externally moderated
In Component 2, students respond to a stimulus, provided by AQA, to produce work which provides evidence of their ability to work independently within specified time constraints, developing a personal and meaningful response which addresses all the assessment objectives and leads to a finished outcome or a series of related finished outcomes.This culminates in a 15 hour practical exam.

Year 12

Term 1: Our Yorkshire - Trip snd Artists Workshops - Portfolio Work
Term 2: Line – Moving 2D into 3D - Portfolio Work
Term 3: Personal Investigation - Component 1

Year 13

Term 1: Personal Investigation - Component 1
Term 2 & 3: Externally Set - Component 2

OCR Computer Science

The OCR A Level Computer Science Qualification is taught in Year 12 and 12 should the students opt for the A Level Computer Science option.

The aims of this qualification are to enable learners to develop:

- an understanding of and ability to apply the fundamental principles and concepts of computer science including; abstraction, decomposition, logic, algorithms and data representation
- the ability to analyse problems in computational terms through practical experience of solving such problems including writing programs to do so
- the capacity for thinking creatively, innovatively, analytically, logically and critically
- the capacity to see relationships between different aspects of computer science
- mathematical skills
- the ability to articulate the individual (moral), social (ethical), legal and cultural opportunities and risks of digital technology

The course is made up of three main elements:

Paper 1 – Computer Systems (40%)
Paper 2 – Algorithms and Programming (40%) Programming Project (20%)

Computer Systems – Paper 1

- The characteristics of contemporary processors, input, output, and storage devices
- Software and software development
- Exchanging data
- Data types, data structures and algorithms
- Legal, moral, cultural and ethical issues

Algorithms and Programming – Paper 2

- Elements of computational thinking
- Problem solving and programming
- Algorithms to solve problems and standard algorithms

Programming project
The students choose a computing problem to work through according to the guidance in the specification.

- Analysis of the problem
- Design of the solution
- Developing and evaluating the solution

Science

AQA Biology

In Biology students study AQA which is divided into 8 units. In Year 12 they recap and build on their GCSE knowledge of cells and cell structure, biological molecules, genetic diversity and DNA and exchange. In Year 13 they expand on the Year 12 content, often making synoptic links between units and study units 5-8 including, in depth knowledge of photosynthesis and respiration, genetics/inheritance and gene technology, response, homeostasis and coordination and sampling and succession. The Paper 3 exam will also require them to complete a Biology essay on a broad topic of Biology. Throughout the course students are assessed on practical skills, such as using a range of lab equipment correctly, and competencies, such as referencing & reporting, by completing a minimum of 12 required practicals. Successful demonstration of the skills & competencies results in practical verification being awarded. There are three final exam papers on which the course is graded.

AQA Chemistry

In Chemistry students study AQA Chemistry which is divided into physical, inorganic & organic chemistry. In Year 12 they recap and build on their GCSE knowledge of atomic structure, quantitative chemistry, structure and bonding and organic chemistry in the first term. They then further develop their understanding of energetics, equilibria, organic chemistry looking at the reactions of the; alkenes, halogenoalkanes and alcohols and inorganic chemistry by looking at the reactions of groups 2 & 7.

In Year 13 all three areas of Chemistry are developed with an emphasis on how the ideas studied are relevant to the real world when studying topics such as drug manufacture and electrochemical cells. Throughout the course students are assessed on practical skills, such as using a range of lab equipment correctly, and competencies, such as referencing & reporting, by completing a minimum of 12 required practicals. Successful demonstration of the skills & competencies results in practical verification being awarded. There are three final exam papers on which course is graded.

AQA Physics

For A Level Physics, students cover the following core topics:

1. Measurements and their errors
2. Particles and radiation
3. Waves
4. Mechanics and materials
5. Electricity
6. Further mechanics and thermal physics
7. Fields and their consequences
8. Nuclear physics

The first topic is covered throughout the whole course. In Year 12 we focus on topics 2-5. Then in Year 13 we focus on topics 6-8 but incorporate Year 12 content into these new topics. Students will also complete a module looking at key turning points in Physics: crucial experiments or theories in the past that radically altered the direction of Physics.

Throughout the course, students will carry out a number of required practicals that will enable them to become confident and independent investigators of scientific questions. They will sit 3 papers at the end of Year 13.

OCR (MEI) Maths

Students will be taught a linear programme covering pure maths, mechanics and statistics with a deeper emphasis on developing and assessing reasoning, problem-solving skills and modelling. There is also a new focus on the use of technology in teaching and learning and students will have to analyse data using Excel and other programmes. The content is covered over the two years in this way:

Pure Maths - Proof, algebra and functions, coordinate geometry, sequences and series, trigonometry, exponentials and logarithms, differentiation, integration, numerical solutions to equations and vectors.

Statistics - Sampling, data presentation and interpretation, probability, statistical distributions and statistical hypothesis testing.

Mechanics - Vectors, kinematics, forces and Newton's Laws, moments.

OCR (MEI) Further Maths

Students will be taught a linear programme with the same emphases as in Maths A Level. We will complete their knowledge of the number system to include complex numbers and explore how these can be used to solve many otherwise impossible problems. We will also further their studies in statistics and mechanics, as well as introducing students to numerical methods of solving problems where algebraic and analytical methods do not hold.

Additional Maths Studies

Students where Maths forms a significant part of their course but who do not do Maths A-Level sometimes find this a particular challenge. We bridge this gap by offering students of science further assistance with their Maths. During other terms help is offered to students with statistical techniques to help those undertaking A-Level fieldwork.

Extended Project Qualification

All Year 12 students are given the opportunity to complete an EPQ on a topic of their choice. A mentor is provided to guide them through the process.