



**KEY STAGE 4  
AND  
GCSE**

**INFORMATION BOOKLET**

**2018 - 2020**

## **ART AND DESIGN**

### **GCSE ART AND DESIGN FINE ART**

The Art Department offers a GCSE in 'Art and Design' and follows the OCR specification. The Key Stage 4 syllabus builds on the knowledge, understanding and skills established at Key Stage 3, in line with the Secondary Curriculum guidelines. The syllabus has been devised to combine a breadth and depth of study with the freedom of choice to accommodate a range of interests and abilities.

#### **COURSE AIMS**

Development of visual perception and understanding.  
Development of visual literacy and appreciation of cultural heritage.  
Development of individuals' special aptitudes and interests.  
Encourage confidence, enthusiasm and a sense of achievement.

#### **COURSE CONTENT**

There are two components to the GCSE Art and Design course,  
Component 1: Portfolio worth 60% of the final grade and Component 2: OCR-set Task worth 40% of the final grade.

The portfolio of work will consist of a sustained project, theme or course of study. This will include preparatory studies, image collection, experimentation with different materials and techniques, development ideas, critical studies and a final outcome which realises intentions. Students should demonstrate an expressive and personal response in their work and will cover the majority of the following areas; drawing, painting, printmaking, mixed media, construction and sculpture. To support the project students will produce an illustrated research piece that encourages independent investigation and appreciation.

The OCR-set Task is taken in Year 11. This task will give students a choice of questions in the form of written and or visual starting points. Students select one question for which they will generate a personal response and will be given preparatory time in which to research, plan and develop their ideas. Ten hours are allocated for the independent realisation of an outcome which is taken under formal examination conditions.

#### **ASSESSMENT**

For the purpose of assessment students will provide evidence of all the assessment objectives through careful selection and presentation of their work. All work is internally assessed by the Art Department and moderated by the OCR Examination Board. The Portfolio and OCR-set Task will be assessed at their completion and will be marked to the following criteria;

Objective 1 – Develop ideas through investigations, demonstrating critical understanding of sources.

- Objective 2 – Refine work by exploring ideas, selecting and experimenting with appropriate media, materials, techniques and processes.
- Objective 3 – Record ideas, observations and insights relevant to intentions as work progresses.
- Objective 4 – Present a personal and meaningful response that realises intentions and demonstrates understanding of visual language.

## **COMPUTER SCIENCE**

GCSE Computer Science has both theoretical and practical components. It is designed to give learners an in-depth understanding of how computer technology works and develop critical thinking, analysis and problem-solving skills.

Students will be required to learn to program using Python.

The theory topics that will be covered include:

- Systems architecture
- Computer memory
- Computer storage
- Wired and wireless networks
- Network topologies, protocols and layers
- System security
- Systems software
- Ethical, legal, cultural and environmental concerns
- Algorithms
- Programming techniques
- Producing robust programs
- Computational logic
- Translators of languages
- Data representation

Programming techniques:

- Variables
- Sequence, selection, iteration
- Loops
- Data types
- String manipulation
- Files
- Arrays/Lists
- Functions

Assessment takes the form of two written examinations and a controlled assessment:

- Unit 1: Written exam paper of 1 hour 30 mins and worth 40% of the qualification
- Unit 2: Written exam paper of 1 hour 30 mins and worth 40% of the qualification
- Unit 3: Programming Project. Students will create and document programming solutions to computing tasks supplied by the examination board, worth 20% of the qualification

Successful students will need to show very good problem solving skills and resilience along with a logical mind and the determination that learning to program requires.

Students have been introduced to Computer Science during year 9. Students opting for this course should be confident of their ability to develop the programming learnt so far to a higher level.

Examination Board: OCR

## **DESIGN & TECHNOLOGY (TEXTILES)**

This course will give pupils the opportunity to build upon their Key Stage Three Design & Technology skills and use their Science and Maths skills to Design and Make products, and to solve problems. In addition it will provide opportunities for students to be creative and innovative.

This course will suit creative pupils who like a challenge, or students who wish to develop their creativity. As well as design and manufacturing skills, transferable skills such as project management, time management and working with others are key features of this course. Universities and employers value the project focus and team working aspects of this subject, and this course would be of particular value to students considering future careers in Designing, the Textiles Industry, Marketing, and Engineering.

Non Examined Assessment (formerly known as Controlled Assessment or Coursework) is a fundamental element of the course and therefore it is important that pupils choosing to study Design and Technology have the ability to organise their own work and meet deadlines.

The course will consist of the following elements:

- 1. Core technical principles – In order to make effective design choices students need to be equipped with technical knowledge including, new and emerging technologies, energy storage, smart materials, designing, and materials and their properties.
- 2. Specialist technical principles – In addition to the core principles students will need an in depth knowledge of one material area which will be textiles based.
- 3. Designing and making principles – Pupils will use knowledge and skills to demonstrate that they can design and make textiles products.

Year 10 consists of taught elements and a series of mini projects where students will find themselves working predominantly with textiles, this is in preparation for the Non Examined Assessment Project which will be carried out in Year 11. This is scheduled to take 35 hours to complete and is worth 50% of the final mark. Pupils have some flexibility to choose their project from a context set by the exam board. This is a Design and Make project which will involve Investigating, Designing, Making, Analysing and Evaluating.

The details of this course are:

Board: AQA  
Specification: Design & Technology  
Assessment: Non Examined Assessment: (35 - 40 Hours) 50%  
Written Paper (2hrs) 50%

### **DRAMA** **AQA – 8261**

An exciting course new to 2016: The Drama course aims to develop skills of **creativity, self-confidence, concentration, self-discipline and communication**. It should encourage a development of self and group awareness together with the ability to appreciate and evaluate the work of others including the ways playwrights achieve their effects.

To obtain the higher grades, it is necessary for you to be capable of expressing yourself clearly both **'on stage'** and **'on page'**

The **practical** examination is based on two components for performance:

- ❖ Devised thematic work; with an accompanying devising log.
- ❖ Text in Practice- scripted work, the study of two scripts and performance of two extracts.

**60%** - postal and externally moderated coursework

The **written** examination is based on:

- i) Multiple choice section based on knowledge and understanding of Drama
- ii) A play studied and workshopped in class
- iii) Responses to live productions seen during the course

Students will write on these for 90 minutes in a formal examination.  
The written exam is sat in the final term of Year 11

**40%** - written examination (this is externally set and marked.)

#### ASSESSMENT OBJECTIVES

The examination will assess the candidate's ability in practical drama skills necessary for the realisation of a presentation to an audience, their knowledge and understanding of plays and other types of performance from a performance perspective and their ability to analyse the effectiveness of their own and others' work with sensitivity.

## ENGLISH LANGUAGE and ENGLISH LITERATURE

**All students will sit GCSE examinations in both English Language and English Literature and they will therefore be awarded two GCSEs. We follow the AQA specifications for our courses in Key Stage 4 with all of the examinations being taken at the end of Year 11.**

### Overview

Both GCSEs develop and examine the skills needed to read, understand and analyse a wide range of different texts from the 19th, 20th and 21st centuries. They also teach and test the ability to write clearly, coherently and accurately using a range of vocabulary and sentence structures. The skills developed across both GCSEs are transferable and offer excellent preparation for A-level English, as well as equipping students with essential life-skills and the best route to future employment.

### GCSE English Language

A range of reading and writing skills are developed in this course:

- critical reading and comprehension of a wide range of texts
- the ability to summarise and synthesise information
- evaluating a writer's choice of vocabulary, form, grammatical and structural features
- comparison
- producing clear, accurate and coherent texts
- writing for impact.

### Assessment

There are two examination papers, each of which tests aspects of Reading and Writing and each of which is worth 50% of the GCSE. A separate spoken language mark will be given on the certificate for the ability to present information and ideas in a formal context and respond to questions and feedback; this is assessed internally during the course.

### GCSE English Literature

The Literature course is skills-oriented and based on the exploration of texts from the established English literary canon. It involves developing a line of argument supported by the analysis and comparison of the ways in which writers convey their ideas in their writing.

### Assessment

There are two closed-book examinations on texts studied during the course: the first is worth 40% of the overall GCSE and is on a play by Shakespeare and a nineteenth-century novel. Each question will be in two parts with the first part involving a response to an extract and the second demonstrating knowledge of the entire text.

The second examination is worth the remaining 60% and has three sections:

- an essay on a twentieth century play or novel
- a comparison of two poems from the studied anthology
- the exploration of an unseen poem and a comparison of this poem with a second unseen poem.

## **GEOGRAPHY**

### ***Do world events interest you?***

In Geography, you will study development and global issues. You will have the opportunity to question why places and societies are different and why rich and poor countries face different challenges.

### ***Do you like discovering new places?***

Geographers are interested in what cultures and places are like and why they are different.

### ***Do you care about our planet?***

In Geography, you will study ecosystems and the environment. You will learn how the environment works, the increasing human pressures placed upon it and the need for sustainability.

Throughout the course of the GCSE we encourage students to ask their own questions about the planet, and we provide them with the skills and knowledge to answer these questions, or to know how to discover the answers for themselves.

We will study the new AQA specification which highlights the critical importance of Geography for understanding the world and for stimulating an interest in places. Students will explore case studies in the United Kingdom (UK), newly emerging economies (NEEs) and lower income countries (LICs). A modern and engaging approach by the department covers key ideas and debates such as climate change, poverty, deprivation, global shifts in economic power and the challenge of sustainable resource use. Students are also encouraged to understand their role in society, by considering different viewpoints, values and attitudes.

The course consists of 3 papers:

Paper 1: Living with the physical environment

Paper 2: Challenges in the human environment.

Paper 3: Geographical Applications

### **Paper 1: Living with the physical environment**

This paper focuses upon the way in which the physical landscape and atmosphere works and how human reactions can have a positive as well as detrimental effect on our natural surroundings.

We plan to study the following topics as part of this unit:

- The challenge of natural hazards

- Physical landscapes in the UK - two from Coastal landscapes in the UK, River landscapes in the UK and Glacial landscapes in the UK
- The living world – Ecosystems, Tropical rainforests and one from Hot deserts or Cold environments
- Geographical Skills

The unit is examined through a 1 hour 30 minute examination at the end of Year 11  
The unit is worth 35% of the G.C.S.E.

### **Paper 2: Challenges in the human environment.**

This paper focuses upon the way in which man uses the world and its resources and explains the development of the human environment in a range of places at various stages of development.

We study the following topics as part of this unit:

- Urban issues and challenges
- The changing economic world
- The challenge of resource management - Resource management and one from Food or Water or Energy.
- Geographical skills

This unit is examined through a 1 hour 30 minutes examination in the summer of Year 11.  
This unit is worth 35% of the G.C.S.E.

### **Paper 3: Geographical Applications**

This examination consists of three parts:

- Issue evaluation based on a pre-release source booklet available from 15<sup>th</sup> March in every examination year. Pupils will prepare for this through research and analysis supported by their class teacher.
- Fieldwork – Pupils will undertake two geographical enquiries, each of which must include the use of primary data, collected as part of a fieldwork exercise. The two enquiries will be carried out in contrasting environments and show an understanding of both physical and human geography as well as their interaction. Understanding will be assessed through questions based on the use of fieldwork materials from an unfamiliar context and students' individual enquiry work.

### **Geographical skills**

Through studying Geography students will learn to appreciate the differences and similarities between people, places and cultures leading to an improved understanding of societies and economies. The fieldwork and skills elements will encourage questioning, investigation and critical thinking about issues affecting the world and people's lives. Pupils will use varied resources including maps and visual media as well as complex skills and technologies such statistics, GIS and remote sensing, to obtain, present and analyse information. Throughout the course pupils will develop essential skills such as problem solving, decision making, synthesising ideas, identifying issues and communicating

findings. This will be achieved through the undertaking of fieldwork investigations, in addition to varied activities within the classroom environment.

At the end of their Geography GCSE we hope that students will have enjoyed exploring, questioning and discovering the world in which they live and will have acquired the skills and grades to benefit them in the next steps of their education.

## HISTORY

**The GCSE History course is a detailed study of some of the most dramatic and troubled periods of history: in particular we focus upon the Twentieth Century.**

The History Department aims to enable all students to become successful learners who enjoy learning, make progress and achieve their potential. We encourage students to become confident individuals and responsible citizens who make a positive contribution to society. The course tackles many of the important issues facing the contemporary world and encourages students to develop into thoughtful young adults with critical and balanced views on world events.

History combines the excitement of exploration with the sense of reward earned by successfully confronting and making sense of complex and challenging problems. It is about human behaviour; real people dealing with real situations. Whether we study the actions and impact of Martin Luther King or Adolf Hitler, we try to get to grips with what makes people tick.

Every lesson should be a positive and rewarding experience.

### The Course

Students will sit two examinations at the end of Year 11, each lasting for 1 hour and 45 minutes. There is no Controlled Assessment or coursework. These are the topics that we study:

**Conflict and tension 1894 – 1918 (including the First World War).**

**Germany 1890 – 1945: democracy and dictatorship (including a focus on Nazi Germany).**

**Power and the people 1170 – present (the development of the relationship between the citizen and the state in Britain; the causes, scale, nature and consequences of protest; the journey from feudalism to democracy and equality).**

**Elizabethan England 1568 – 1603 (focusing on the major events of Elizabeth I's reign: economic, religious, political, social and cultural).**

NOTE: Students in Year 9 have already made a start on the first of these topics, allowing us to dedicate extra time to examination skills and technique at GCSE level.

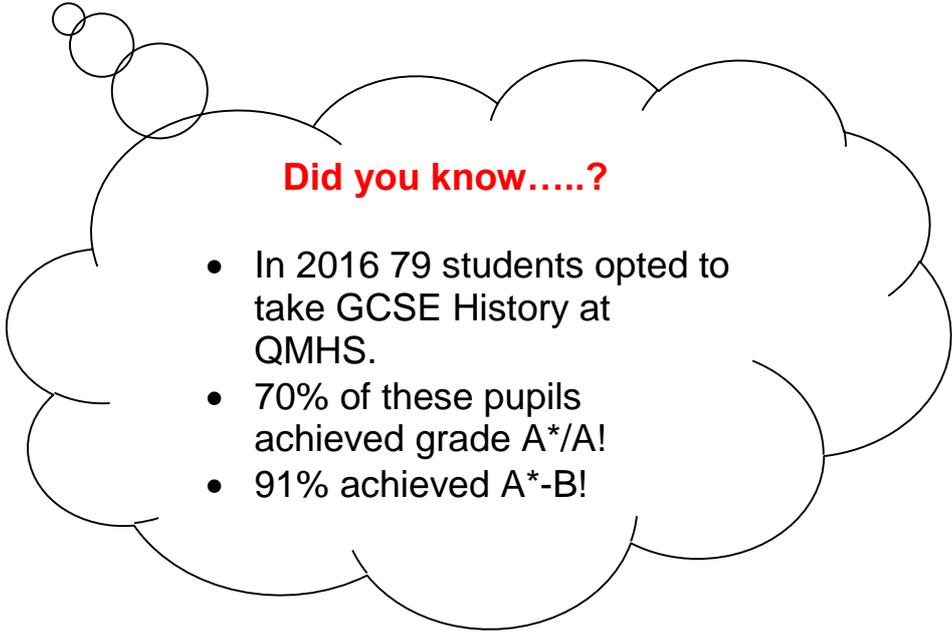


**Studying History at GCSE will enable students to**

- Understand the world today in the context of past events
- Argue a case and draw conclusions
- Develop confidence in their ability to discuss, debate and speculate on challenging issues and dilemmas.
- Think critically and evaluate the causes and consequences of events which have shaped the modern world
- Analyse and explain the actions and motivations of different groups of people and governments
- Evaluate evidence and use historical sources to understand the past and interpretations of the past

**Our future doctors, lawyers, politicians, accountants, managing directors and scientists need these skills. Above all, our students develop an open and inquisitive mind; they become critical thinkers.**

At Key Stage 4 students enjoy many different opportunities to develop their enthusiasm for, and understanding of, their studies. These include interesting lectures by eminent historians, national competitions, extra-curricular trips to incredible historical sites and activity days at schools and colleges across the Midlands.



**Did you know.....?**

- In 2016 79 students opted to take GCSE History at QMHS.
- 70% of these pupils achieved grade A\*/A!
- 91% achieved A\*-B!

# MATHEMATICS

## GCSE

At key stage 4, all students work towards the Edexcel linear qualification. This encourages students to develop confidence in, and a positive attitude towards, mathematics and to recognise the importance of mathematics in their own lives and to society.

The course requires students to:

- Develop knowledge, skills and understanding of mathematical methods and concepts, including:
  - Number
  - Algebra
  - Geometry
  - Ratio
  - Proof
  - Statistics
  - Probability
- Use their knowledge and understanding to make connections between mathematical concepts.
- Apply the functional elements of mathematics in everyday and real-life situations.

The course gives the students the opportunity to develop the ability to:

- Acquire and use problem-solving strategies
- Select and apply mathematical techniques and methods in mathematical, every day and real-world situations
- Reason mathematically, make deductions and inferences and draw conclusions
- Interpret and communicate mathematical information in a variety of forms appropriate to the information and context.

A wide range of resources are available to the students. These include:

- Past papers and mark schemes
- Questions by topic
- Key notes and helpsheets

In addition, pupils can find useful material on the “MyMaths” website. Students should be equipped with a scientific calculator, a ruler, a protractor and a pair of compasses. All of our students will sit the higher level examinations.

As part of the Key Stage 4 mathematics course elements of rigour and algebraic skill will look to support support students go “beyond GCSE”. The rationale for this will be to:

- Develop a mastery approach to the hardest GCSE content
- Prepare students to progress smoothly onto the A-level course
- Provide challenge that will further deepen understanding and passion for mathematics.

## **MODERN FOREIGN LANGUAGES**

Our aim is to offer students in all Key Stages the opportunity to learn a wide range of languages and develop skills which are increasingly in demand in the workplace.

The courses aim to develop students' ability to use foreign languages in practical, everyday situations. The linguistic skills which students develop at GCSE prepare them, should they choose, for further study up to AS/A level in the Sixth Form.

There are regular opportunities to practise speaking skills with native speakers and to access a range of ICT resources through specialist websites and the Digital Language Laboratory.

All students must study one language at GCSE and are encouraged to study two from the following languages.

### **French   German   Spanish**

As from 2016, the GCSE qualifications are linear; this means students sit all their examinations at the end of the course. Each paper (Listening, Reading, Speaking and Writing) counts for 25% of the overall marks.

Subject content: Students study the following themes. These themes apply to all four question papers.

- Theme 1 → Identity and culture
- Theme 2 → Local, national, international and global areas of interest
- Theme 3 → Current and future study and employment

GCSE Languages have a Foundation Tier (grades 1-5) and a Higher Tier (grades 4-9). Students must enter all four skills at the same tier. Grammar and vocabulary requirements are specific to the individual language.

*Exam Board:* French, German, Spanish → AQA

## MUSIC

<b>Exam Board:</b>	Edexcel (course code 1MU0)
<b>Examinations:</b>	Year 11. Unit 3. 40% of the total GCSE <u>Listening &amp; Appraising exam.</u> 1 hr 45 written paper in 2 sections <b>Section A:</b> 6 questions based on short audio extracts from the 8 set works listed below. One short melody/rhythm completion exercise. One question on an unfamiliar piece (skeleton score provided) with questions on its musical elements, musical contexts and musical language.  <b>Section B</b> Extended response comparison between one of the set works and one unfamiliar piece
<b>Controlled assessments:</b>	<u>Unit 1 – Performing (minimum standard AB grade 3)</u> 30% of total GCSE Pupils perform 1 solo piece and 1 ensemble piece (both free choice). Both are recorded, internally assessed and then sent to the board for moderation.  <u>Unit 2 - Composing</u> 30% of total GCSE 2 compositions with a combined duration of at least 3 minutes 1 piece on a brief set by the exam board & 1 free choice

### **Course Content:**

<u>Unit 1:</u>	<u>Unit 2:</u>	<u>Unit 3:</u>
<ul style="list-style-type: none"> <li>• Solo performance practice</li> <li>• Ensemble practice</li> </ul>	<ul style="list-style-type: none"> <li>• How to use Sibelius software</li> <li>• Composing techniques</li> </ul>	An in depth study of 8 set works, covering the history of music from the 18 <sup>th</sup> Century to present day.

### **Unit 3 set works:**

#### **Instrumental Music 1700–1820**

- J S Bach: 3rd Movement from Brandenburg Concerto no. 5 in D major
- L van Beethoven: 1st Movement from Piano Sonata no. 8 in C minor 'Pathétique'

#### **Vocal Music**

- H Purcell: Music for a While
- Queen: Killer Queen (from the album 'Sheer Heart Attack')

#### **Music for Stage and Screen**

- S Schwartz: Defying Gravity (from the album of the cast recording of Wicked)
- J Williams: Main title/rebel blockade runner (from the soundtrack to Star Wars Episode IV: A New Hope)

#### **Fusions**

- Afro Celt Sound System: Release (from the album 'Volume 2: Release')

- Esperanza Spalding: Samba Em Preludio (from the album 'Esperanza')

## **RELIGION, PHILOSOPHY AND ETHICS**

This AQA Full Course option will give students the opportunity to explore and reflect on questions about Religion, Existence and Morality. Students will develop their thinking and analytical skills and evaluate their own and others' ideas on philosophical and moral issues.

### **SPECIFICATION AIMS**

This specification gives students opportunities to:

- i. Adopt an enquiring, critical and reflective approach to the study of religion.
- ii. Explore religions and beliefs, reflect on fundamental questions, engage with them intellectually and respond personally.
- iii. Enhance their personal, social and cultural development, their understanding of different cultures locally, nationally and in the wider world and to contribute to social and community cohesion.
- iv. Reflect on and develop their own values, opinions and attitudes in light of their learning.
- v. Consider religious and other responses to **moral issues**.
- vi. Identify, investigate and respond to **fundamental questions of life** raised by religion and human experience, including questions about the **meaning and purpose of life**
- vii. **Study two religions- Christianity and Buddhism**
- viii. Develop transferable skills and those relevant to the study of religion.

### **CONTENT - The following topics will be covered**

Beliefs, Teachings and Practices of two religions - **Christianity and Buddhism**

**The study of *four themes* from the following Religious, Philosophical and Ethical studies in the modern world:**

**Religion and Life** ( origins and value of the universe, use and abuse of the environment, animals, evolution, euthanasia, abortion, afterlife)

**The existence of God and Revelation** (arguments for the existence of God, miracles, evil and suffering)

**Religion, Peace and Conflict** ( forgiveness, reconciliation, violence, terrorism, war)

**Religion, Human Rights and Social Justice.** (prejudice and discrimination, equality, exploitation, charity)

### **Assessment**

The above content is examined through two 1 hour 45 minute examinations.

There is no coursework.

## SCIENCE

Science stimulates and excites students' curiosity about events and phenomena in the world around them. It links direct practical experience with ideas and provides the knowledge to satisfy curiosity. Through science, students can understand how major scientific ideas contribute to technological change, developments in industry, business and medicine and improving quality of life. Balanced Science is a compulsory core subject within the National Curriculum framework. All students began working towards their Biology, Chemistry and Physics GCSE in Year 9.

Science is essential for any career in the health services

- Doctor
- Pharmacist
- Dentist
- Optometrist
- Physiotherapist

It is also essential for a career as a

- Structural engineer
- Civil engineer
- Aeronautical engineer

Many Universities offer bursaries to students studying sciences and/or engineering

Universities and employers expect a minimum of two GCSE qualifications in Science. We are offering a route to three GCSE qualifications, which we feel may be advantageous to your daughter in the future, particularly if they progress on to study at Advanced Level.

The courses currently followed are from Edexcel's Biology, Chemistry and Physics 9-1 specification and cover the following content.

<b>Biology</b>	<b>Chemistry</b>	<b>Physics</b>
<u><b>Year 9</b></u> B1 Key concepts in Biology B2 Cells and control	<u><b>Year 9</b></u> <b>Principles of Chemistry</b> States of matter Atomic structure and the Periodic Table Chemical formulae and equations Structure and bonding Methods of separating and analysing	<u><b>Year 9</b></u> Overarching concepts of physics: motion, forces and conservation of energy Forces and their effects

<u><b>Year 10</b></u> B3 Genetics B4 Natural selection and Genetic modification B5 Health Disease and Development of medicines. B6 Plant structures and their functions	<u><b>Year 10</b></u> Chemical changes (acids and salts) Rates of reaction Fuels and Earth Science  <b>Organic chemistry</b> Alkanes	<u><b>Year 10</b></u> Waves The electromagnetic spectrum Light and sound Particle model 1 Radioactivity Astronomy
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	Alkenes Ethanol and Organic acids Polymers	Electricity and circuits Static electricity
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<b>Year 11</b> B6 Continued B7 Animal Coordination, control and Homeostasis. B8 Exchange and Transport in Animals B9 Ecosystems and Material	<b>Year 11</b> Groups in the periodic table Calculations in Chemistry Energy Extracting and using metals Equilibria Electrolysis	<b>Year 11</b> Electromagnetism and the motor effect Electromagnetic induction Particle model 2 Forces and matter
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The course is a linear course and will be assessed by two written papers in the summer of the year 11. The written papers are both 1 hour 45 minutes long and are out of 100 marks. They contain a mixture of multiple choice, short answer and extended response questions. The paper assesses both higher and foundation aspects of the course. The higher tier qualification gained for each subject is graded 9 to 4.

Practical work is an integral part of science and will be built into the lesson content as the course progresses. In addition, the students will complete a total of eight core practicals in each discipline, from which the knowledge and skills gained will then be tested within the body of the exam papers.

This integration should also provide our students with better practical skills that will aid them in any further studies in the Sciences.

As the course progresses, students will be assessed internally against examination board criteria. Any students who are not deemed to be making suitable progress towards the award of three separate science GCSEs in Biology, Chemistry and Physics will be transferred to the assessment route leading to 2 GCSEs in Science graded 9 to 4.



