BEECHEN CLIFF

Science

Curriculum Booklet

2026 - 2027

Head of Faculty: Ms R Bala

Head of Biology (Mrs E Angel)

Head of Chemistry (Ms R Bala)

Head of Physics (Mr A Seal)

Subject Curriculum Intent:

"Science education is one of the keys to social mobility. Science qualifications open the doors to many rewarding and interesting careers, and scientific literacy is critically important to being an informed citizen. Science is the most powerful method humans have for understanding the world"

- Sir John Holman.

We aim to ensure that our pupils not only develop a love for learning science, but acquire the knowledge they need to become active and healthy citizens in modern society, and to enable them to reach their full potential and continue to study science should they choose to do so.

Many of our pupils have achieved highly in Key Stage 2. Therefore our curriculum is designed to be challenging and as such exceeds the requirements of the National Curriculum. However we aim to support all learners, regardless of background, to achieve their full potential. We are a boys school, and our curriculum aims to promote gender and ethnic equality and emphasises the role played by scientists from a diverse range of backgrounds.

We want our pupils to recognise that science seeks to explain the world, to learn about the differences between each science and to learn about the different ways scientists work. We break down the knowledge into key concepts which are taught in the separate disciplines of biology, chemistry and physics from year 7 onward and carefully sequence them so that knowledge is introduced in a logical order over a 5 year journey. We want our pupils to retain this knowledge long term and be able to apply it to explain the world around them.

We aim to encourage our pupils' natural curiosity and as such we ensure that they have the knowledge and skills required to learn through carrying out practical experiments and eventually to be able to design investigations which answer their own questions.

We want our pupils to become scientifically literate to be able to read and understand scientific articles in the news or in literature, to communicate their understanding effectively and with confidence and to understand and engage with scientific issues so that they can form valid opinions and make informed decisions. Reading in our school is part of the culture. We want our pupils to love reading and as such our science curriculum is designed to encourage this.

Our curriculum is also designed to ensure that our pupils develop a knowledge of how science relates to social, moral, spiritual and cultural issues as well as the scope and limitations of science in this regard.

The science curriculum is therefore more than a description of the journey towards expertise. It is also the means by which to get there.

Subject Curriculum Implementation:

Key Stage 3. Years 7-9.

We begin year 7 with a short "Introduction to science" topic. The curriculum is then broken into topics under the separate disciplines of biology, chemistry and physics. In order to help our pupils know the distinctions between these, they are taught in separate units and pupils receive a unit front sheet which highlights which science they are studying. We start with the fundamental topics of Cells, Particles and Forces which underpin the key processes in Biology, Chemistry and Physics. Subsequent topics are then carefully sequenced and revisited over the 5 year journey so that knowledge is built over time in a logical order.

To ensure that all of our pupils achieve their full potential, all pupils cover the full curriculum. We then ensure that learning is unpackaged to meet the needs of all learners by providing challenge and support through use of "challenge" tasks and by providing support materials. Experimental work, reading and extended writing tasks, and social, moral, spiritual and cultural issues are visited throughout the topics. We use regular knowledge quizzes and key homeworks, as well as less frequent formal assessments to check what pupils know and can remember and provide verbal and written feedback to ensure that they know what they have learned as well as what they need to do next.

In order to further encourage curiosity, during the national science week, year 7 and 8 pupils complete an extended research project and design and carry out a science investigation of their own, before having the chance to take part in the science fair. By the end of year 9, all pupils will have covered the full National Curriculum for science at Key Stage 3 and we begin the transition between Key Stage 3 and 4 by extending the Key Stage 3 concepts of Cells, Particles and Atoms, Elements and Compounds, to introduce Key Stage 4 knowledge.

Key Stage 4. Years 10-11.

At Key Stage 4, pupils either choose to study the AQA Separate Sciences or AQA Combined Science: Trilogy GCSEs. Classes are banded according to prior attainment in Key Stage 3 with some overlap of ability. All classes are taught by specialist teachers. As in Key Stage 3, topics are arranged under the separate disciplines of biology, chemistry and physics and these topics are carefully sequenced to ensure knowledge is built over time and concepts revisited. To ensure that all pupils reach their potential, support materials and challenge tasks are provided in lessons as well as revision materials and for year 11, after school revision classes.

We use regular knowledge quizzes and key homeworks, as well as less frequent formal assessments, to check what pupils know and provide verbal and written feedback to ensure that they know what they have learned as well as what they need to do next. In year 11 we use past exam papers infrequently in order to help pupils to apply what they have learned to exam-style questions to identify gaps in knowledge and to enable teachers to close these. We do not teach pupils to the test. We help them to be prepared for the demands of examinations and to be able to access the A levels and Vocational Courses available by ensuring they know and can remember more and therefore apply this knowledge.

Allocated Curriculum Time:

	Year 7	Year 8	Year 9	Year 10	Year 11
Fortnightly lesson allocation	6	6	6	10	10

Year 7

	Curriculum Foci Areas	Assessment
Term 1	**Introduction to Science** • Pupils learn how to work safely in a science laboratory, use scientific equipment and learn how to plan and carry out investigations. **Cells** • Pupils learn about plant and animal cells and specialised cells. **Forces** • Pupils learn about contact, non-contact forces and force diagrams, and apply this to mass, weight and gravity and the work done in machines.	**Baseline assessment**
Term 2	**Particles** • Particle theory is introduced (solids liquids and gases). Pupils learn about gas pressure, diffusion and heating. **Atoms, Elements and Compounds** • Pupils are introduced to the atom as the basic unit of chemistry before going on to learn about chemical symbols and formulae for compounds. **Energy** • Pupils learn about energy stores and the conservation of energy as well as heat transfer through conduction, convection and radiation	**Cells** **Forces**
Term 3	**Body Systems** • Pupils study breathing, the structure of the lungs and body systems. **Separating mixtures** • Pupils use the particle model to represent mixtures. • Pupils appreciate the relationship between solutes, solvents, solutions and the factors that affect solubility. • Pupils are able to apply separation techniques to include filtration, evaporation, distillation and chromatography.	**Particles** **Atoms, elements and Compounds**
Term 4	**Science Investigations and Science Fair** **Sound and Waves** • Pupils learn about how sound travels, the speed of sound and the ear before learning about wave motion, frequency and amplitude. **Reproduction** • Pupils build on their understanding of cell biology to study the human reproductive system and the menstrual cycle.	**Sound and waves**
Term 5	**Introduction to reactions** • Pupils learn about combustion, thermal decomposition and representing reactions with equations and diagrams. **Interdependence** • Exploration of food chains, webs, feeding relationships and ecosystems.	**Summer Exams**
Term 6	**Plants** • Students are introduced to the different parts of plants and how they are adapted. They also learn about how plants reproduce. **The Earth's Structure**	**Literacy assessment**

	• Pupils learn about the structure of the Earth and the rock cycle. **The Earth in Space** • Pupils explore our solar system, day/night, phases of the moon and seasons.	

Year 8

	Curriculum Foci Areas	Assessment
Term 1	**Acids and Alkalis** • Pupils learn about acids and alkalis, and neutralisation reactions. **Respiration and Photosynthesis** • Pupils learn about the reactions of photosynthesis and respiration, and their importance in the transfer of energy through food chains and webs.	**Baseline assessment**
Term 2	**Motion and Pressure** • Pupils study the measurement and calculation of speed including representing this on a graph. • Pupils investigate pressure in solids, liquids and gases. **Periodic Table** • Pupils learn about the arrangement of the Periodic Table and the properties, reactions and trends within groups of elements.	**Acids & Alkalis Respiration & photosynthesis**
Term 3	**Health and Digestion** • Pupils investigate a healthy diet and the risks of an unhealthy lifestyle. • Pupils study the structure and function of the digestive system, including roles of enzymes and bacteria. **Energy Resources** • Pupils learn about renewable and non-renewable energy resources.	**Motion & pressure**
Term 4	**Science Investigations and Science Fair** **Light** • Pupils investigate the movement of light as waves, including wave structure, reflection, refraction and splitting light into different colours. **Reactions of metals** • Pupils construct word and balanced formula equations to express the products of the reactions of metals with acids, water and oxygen. • Pupils use the reactivity series to predict the outcomes of displacement reactions.	**Health & Digestion literacy assessment**
Term 5	**Variation, Inheritance and Evolution** • Pupils learn about key interdependence concepts such as competition, variation, natural selection and evolution.	**Summer Exams**
Term 6	**Electricity and Magnets** • Pupils gain an understanding of charged particles, their interactions and magnetic fields. • Pupils investigate electricity in circuits to include current, voltage and resistance. • Pupils learn about magnets, magnetic fields and electromagnets and their applications. **Earth's resources and our Atmosphere** • Pupils study the composition of the atmosphere, the carbon cycle and the impact of human actions on the atmosphere. • Pupils investigate the limited nature of the Earth's resources, how we can extract metals and the importance of recycling.	**Literacy assessment**

Year 9

	Curriculum Foci Areas	Assessment
Term 1	**The Particle model of matter** • Pupils learn about the different states of matter and how particles behave as they are heated and as they move between these states. **Cells - part 1** • Pupils build on their knowledge by learning about new cell organelles.	**Particles**
Term 2	**Cells part 2 - transport and division** • Pupils learn about how substances enter and leave cells and how they divide and specialise. **Atomic Structure & The Periodic Table** • Pupils learn about the history of atomic models and how scientists have come to the current model of atomic structure. • Pupils learn how atomic structure is linked to the layout of the periodic table.	**Cells**
Term 3	**Organisation** • Pupils learn about the digestive system, circulatory system and respiratory system and the importance of enzymes.	**Atomic structure & Periodic Table**
Term 4	**Radioactivity** • Pupils learn about the concepts of: atoms and the nucleus, discovery of the atom, types of radiation and their properties, activity and half-life.	**Organisation**
Term 5	**Revision for Summer Exams** • Pupils revise their knowledge of Key Stage 3 Biology, Chemistry and Physics, and GCSE transition topics, as well as investigative approaches.	**Radioactivity**
Term 6	**Summer Exams** **Structure and Bonding** • Pupils learn how atoms can bond together in different ways and how each different form of bonding leads to substances with different physical properties.	**End of year 9 exams in Biology, Chemistry and Physics testing KS3 knowledge and KS4 bridging content**

Year 10

Exam Board: AQA

Specification: Combined Science: Trilogy / Separate Science: Biology

	Curriculum Foci Areas	Assessment
Term 1	**Infection & Response:** Communicable diseases • Pupils learn examples of various pathogens, the diseases they cause and how they are studied. • Pupils learn how the human immune system works to tackle infection. Preventing and treating diseases • Pupils understand how vaccinations prevent secondary infections. • Pupils learn examples of drugs and how they are developed. • *Pupils learn how monoclonal antibodies are made and used (Separate Science only).*	**Cell structure and Organisation**
Term 2	**Bioenergetics:** Photosynthesis • Pupils learn how photosynthesis occurs and its importance. • Pupils understand how the rate of photosynthesis can be affected, and how this knowledge is used to optimise farming.	**Infection & response**
Term 3	Respiration • Pupils learn how aerobic and anaerobic respiration occur. • Pupils learn how our body responds to exercise. • Pupils learn the functions of the liver and how it relates to metabolism. Plant tissues • Pupils learn about different plant tissues and transpiration.	**Bioenergetics**
Term 4	**The human nervous system** • Pupils are introduced to the concept of homeostasis. • Pupils learn how the human nervous system coordinates reflex actions. • *Pupils learn about the structure of the brain and the eye (Separate Science only).* **Hormonal coordination** • Pupils learn principles of hormonal communication with a focus on reproductive hormones and blood glucose regulation. • *Separate Science only:* Pupils learn about plant hormones.	**Biology paper 1 practice paper**
Term 5	**Homeostasis In Action** (*Separate Science only*) • Pupils learn how mammals regulate their body temperature. • Pupils learn about the process of excretion to remove waste products from the body. • Revision of all paper 1 Biology topics **End of Year 10 Biology Paper 1 mock exam** 1 hr 15 min (Combined Science); 1 hr 45 min (Separate Science)	**Biology Paper 1 mock exam**

Term 6	• Feedback and improvement work following the mock exam. **Adaptations, interdependence and competition** • Pupils learn about how living organisms are grouped in an ecosystem and the factors that affect them. • Pupils learn how organisms are adapted for competition and survival.	**Biology paper 1 practice paper**

Year 10

Exam Board: AQA
Specification: Combined Science: Trilogy / Separate Science: Chemistry

	Curriculum Foci Areas	Assessment
Term 1	**Chemical Calculations** • Pupils are introduced to the mole, and carry out calculations to determine reacting masses.	**Structure and Bonding**
Term 2	**Chemical Changes** • Pupils learn about the reactions of acids, bases and metals, as well as how electrolysis works and why it is useful.	**Chemical calculations**
Term 3	**Chemical Changes (continued)** **Energy Changes** • Students learn about exothermic and endothermic reactions.	**Chemical changes**
Term 4	**Energy Changes (continued)**	**Energy changes**
Term 5	**Rates of Reaction** • Students investigate the factors that affect the rate of chemical reactions. **Dynamic Equilibrium** • Pupils learn how reversible reactions can reach dynamic equilibrium and how to change the position of a dynamic equilibrium.	**Chemistry paper 1 practice paper**
Term 6	**End of Year 10 Assessment.** • Chemistry Paper 1 Mock Exam • Year 10 Summer Exam Week • 1 hr 15 min (Combined Science); 1 hr 45 min (Separate Science)	**Chemistry paper 1 mock exam**

Year 10

Exam Board: AQA
Specification: Combined Science: Trilogy / Separate Science: Physics

	Curriculum Foci Areas	Assessment
Term 1	**Energy dissipation and transfer by heating.** • Pupils learn about energy stores and transfer mechanisms, how to calculate the amount of energy in gravitational, kinetic and elastic energy stores, and how to calculate the efficiency of these transfers. **Energy resources** • Pupils learn about generating electricity using renewable and non-renewable supplies and explore the impact and limitation of a range of energy resources.	**Particles & Nuclear physics**
Term 2	**Electrical Circuits** • Pupils investigate the concepts of: electrical current, charge, potential difference, resistance, components, series and parallel circuits. They learn how to complete calculations with some of these concepts.	**Energy**
Term 3	**Electricity in the home** • Pupils learn about the concepts of: AC/DC, the national grid, cables and plugs and electrical safety in the home, the cost of electrical power and the need to consider electrical efficiency.	**Electricity**
Term 4	**Forces in balance** • Pupils learn about vectors and scalars, resultant forces, centre of mass, parallelogram of forces and resolution of forces. They also learn about levers, their resultant moments and equilibrium. **Motion** • Pupils learn about the concepts of: speed versus time graphs, velocity and acceleration, more on velocity time graphs and analysing graphs of motion.	**Paper 1 practice paper**
Term 5	**Force and Motion** • Pupils learn about the concepts of: force and acceleration, weight and terminal velocity, forces and braking distance (in vehicles) and forces and elasticity. **Forces & Momentum** • Pupils learn about momentum and use momentum equations.	**Paper 1 practice paper**
Term 6	**End of Year 10 Assessment.** • Year 10 Summer Exam Week • 1 hr 15 min (Combined Science); 1 hr 45 min (Separate Science) **Force and pressure - *Separate Science only:*** • *Pupils learn about the concepts of: pressure and surfaces, in a liquid, atmospheric pressure and upthrust and flotation.*	**Paper 1 Physics mock exam**

Year 11

Exam Board: AQA
Specification: Combined Science: Trilogy / Separate Science: Biology

	Curriculum Foci Areas	Assessment
Term 1	**Biodiversity and Ecosystems** • Pupils learn about the human population explosion and its impact on the environment • *Separate Science only:* Pupils learn how biomass and energy are transferred between trophic levels and also how food production can be made efficient. ***Organising an ecosystem (Separate Science only)*** • *Pupils revise how an ecosystem is structured and its interactions.* • *Pupils revise how materials are recycled in the ecosystem.* • *Pupils learn how decomposition rate is affected.*	**Homeostasis**
Term 2	**Reproduction** • Pupils learn about sexual and asexual reproduction and the role of meiosis. • Pupils learn about DNA and its role in the production of proteins. • Pupils learn about how our characteristics are inherited, including genetic disorders. **Revision and Mock exam - Biology Paper 1**	**Biology paper 1 mock exam**
Term 3	**Variation and Evolution** • Pupils learn what causes variation in living things. • Pupils learn about evolution by natural selection and also the process of artificial selection. • Pupils learn about cloning *(Separate Science only)* and gene technologies. **Genetics and Evolution** • Pupils learn about the history of our understanding of genetics and evolution. • Pupils learn how living things are classified	**Ecology**
Term 4	**Revision and Mock exam - Biology Paper 2** **Revision** • Pupils continue to revise, focusing their time on developing knowledge in areas identified in the mock exams.	**Biology paper 2 mock exam**
Term 5	**Revision and Exams** • Pupils continue a structured process of revising with a key focus on applying learned content to exam style questions.	
Term 6	**Exams**	

Year 11

Exam Board: AQA Specification: Combined Science: Trilogy/Separate Science: Chemistry

	Curriculum Foci Areas	Assessment
Term 1	**Crude oil and fuels** • Pupils learn about crude oil, fractional distillation and hydrocarbons. And how hydrocarbons are used. ***Further Organic Chemistry (Separate Science Only)*** • Pupils learn about alkenes, alcohols, carboxylic acids, esters and their chemical reactions. • Pupils learn about addition and condensation polymers.	**Crude oil & fuels**
Term 2	**Chemical Analysis** • Pupils learn how to analyse chemicals for purity, separate mixtures of chemicals in a solution and how to test for different gases • Pupils learn the tests for various cations and anions (*Separate Science only*) **Revision and Mock exam - Chemistry Paper 1**	**Chemistry paper 1 mock exam**
Term 3	**The Earth's atmosphere** • Pupils study the composition of the atmosphere as it is today, as well as how it has changed over the history of the planet. **The Earth's resources** • Pupils learn about the various rocks and minerals which are available as well as how metals and compounds are extracted using chemical processes. ***Using The Earth's Resources (Separate Science only)*** • Pupils learn about useful materials such as alloys, polymers and composite materials • Pupils learn about the Haber Process and how this is useful in the production of fertilisers.	**Atmosphere**
Term 4	**Revision and Mock exam - Chemistry Paper 2** **Revision** • Pupils continue to revise, focusing their time on developing knowledge in areas identified in the mock exams.	**Chemistry paper 2 mock exam**
Term 5	**Revision and Exams** • Pupils continue a structured process of revising with a key focus on applying learned content to exam style questions.	
Term 6	**Exams**	

Year 11

Exam Board: AQA
Specification: Combined Science: Trilogy / Separate Science: Physics

	Curriculum Foci Areas	Assessment
Term 1	**Properties of waves** • Pupils learn about transverse and longitudinal waves, and how wave speed can be measured experimentally. **Electromagnetic waves** • Pupils learn about the electromagnetic spectrum, including properties of different EM waves, their uses and associated hazards. ***Light (Separate Science only)*** • Pupils learn about lenses and how waves behave at boundaries.	**Forces**
Term 2	**Revision and Mock exam - Physics Paper 1** • 1 hr 15 min (Combined Science); 1 hr 45 min (Separate Science) **Magnetism** • Pupils learn about permanent magnets and magnetic fields. They see that electric currents create electromagnetic fields and they understand how these can be used to create motors.	**Physics paper 1 mock exam**
Term 3	**Magnetism** • Pupils investigate transformers and their value to the national grid. ***Space (Separate Science only)*** • Pupils learn about the formation and potential future of the universe. • Pupils learn about the contents of our solar system including how manmade satellites are able to operate in different orbits. • Pupils learn about the lifecycle of stars.	**Magnetism**
Term 4	**Revision and Mock exam - Physics Paper 2** • 1 hr 15 min (Combined Science); 1 hr 45 min (Separate Science) **Revision** • Pupils continue to revise, focusing their time on developing knowledge in areas identified in the mock exams.	**Physics paper 2 mock exam**
Term 5	**Revision and Exams** • Pupils continue a structured process of revising with a key focus on applying learned content to exam style questions.	
Term 6	**Exams**	

Revision and Support:

Key Stage 3

How to support your son with his learning:
Before each assessment in science, pupils will be given a personalised learning checklist (PLC) which lists what they are being assessed on and provides links to useful revision resources. Please help them to:

- Read through the PLCs and identify areas they are less confident in.
- Create flashcards for keywords
- Create a mind map for the topic.

Useful resources:
Recommended revision guide, websites, textbooks etc.

- BBC Bitesize KS3 Science: https://www.bbc.co.uk/bitesize/subjects/zng4d2p
- Seneca Learning: https://senecalearning.com/en-GB/blog/free-key-stage-3-science-revision/

Key Stage 4

How to support your son with his learning:
Before each assessment in science, pupils will be given a personalised learning checklist (PLC) which lists what they are being assessed on and provides links to useful revision resources. Please help them to:

- Read through the PLCs and identify areas they are less confident in.
- Use the free online resources BBC Bitesize, Seneca learning, GCSE Physics online, FreeScienceLessons and Cognito Science (all linked below).
- Create flashcards for keywords
- Read through the CGP revision guide and complete the practice questions after each chapter.

Useful resources:

- CGP Revision Guides https://www.cgpbooks.co.uk/secondary-books/gcse/science
- GCSE BBC Bitesize revision: https://www.bbc.co.uk/bitesize/subjects/zrkw2hv
- Seneca learning: https://senecalearning.com/en-GB/
- GCSE Physics Online: https://www.gcsephysicsonline.com/
- FreeScienceLessons (YouTube): https://www.youtube.com/channel/UCqbOeHaAUXw9Il7sBVG3_bw
- Cognitio Science (YouTube): https://www.youtube.com/c/Cognitoedu

Final Assessment Structure: AQA Combined Science: Trilogy

Component	Weighting (%)	Content	Proposed Examination Date
Biology Paper 1	16.67 %	• Cell Biology • Organisation • Infection and response • Bioenergetics.	May/June
Chemistry Paper 1	16.67 %	• Atomic structure and the periodic table • Bonding, structure, and the properties of matter • Quantitative chemistry • Chemical changes • Energy changes.	May/June
Physics Paper 1	16.67 %	• Energy • Electricity • Particle model of matter • Atomic structure.	May/June
Biology Paper 2	16.67 %	• Homeostasis and response • Inheritance, variation and evolution • Ecology	May/June
Chemistry Paper 2	16.67 %	• The rate and extent of chemical change • Organic chemistry • Chemical analysis • Chemistry of the atmosphere • Using resources. (Questions in Paper 2 may draw on fundamental concepts and principles from Paper 1)	May/June
Physics Paper 2	16.67 %	• Forces • Waves • Magnetism and electromagnetism	May/June

Please see exam board websites for up to date information:
https://www.aqa.org.uk/subjects/science/gcse/combined-science-trilogy-8464

Final Assessment Structure: AQA GCSE Biology

Component	Weighting (%)	Content	Proposed Examination Date
Biology Paper 1	50 %	• Cell Biology • Organisation • Infection and response • Bioenergetics.	May/June
Biology Paper 2	50 %	• Homeostasis and response • Inheritance, variation and evolution • Ecology	May/June

Please see exam board websites for up to date information:
https://www.aqa.org.uk/subjects/science/gcse/biology-8461

Final Assessment Structure: AQA GCSE Chemistry

Component	Weighting (%)	Content	Proposed Examination Date
Chemistry Paper 1	50 %	• Atomic structure and the periodic table • Bonding, structure, and the properties of matter • Quantitative chemistry • Chemical changes • Energy changes.	May/June
Chemistry Paper 2	50 %	• The rate and extent of chemical change • Organic chemistry • Chemical analysis • Chemistry of the atmosphere • Using resources. (Questions in Paper 2 may draw on fundamental concepts and principles from Paper 1)	May/June

Please see exam board websites for up to date information:
https://www.aqa.org.uk/subjects/science/gcse/chemistry-8462

Final Assessment Structure: AQA GCSE Physics

Component	Weighting (%)	Content	Proposed Examination Date
Physics Paper 1	50 %	• Energy • Electricity • Particle model of matter • Atomic structure.	May/June
Physics Paper 2	50 %	• Forces • Waves • Magnetism and electromagnetism • Space physics	May/June

Please see exam board websites for up to date information:
https://www.aqa.org.uk/subjects/science/gcse/physics-8463

Careers education

There are numerous examples where the content in KS3 and KS4 Science has a direct link to real-world applications, and so to potential careers. Some of these examples are listed below. Some of these activities are stand-alone, however most of these links are interwoven into our teaching of the course.

Year	Careers Education in Science
7	• All students take part in an Ignite day on careers in sustainable development, e.g. sustainability development officer, architect for sustainable building development, working for the National Grid. • All students take part in Science fair projects. These are student-driven, open-ended projects, where careers links are made, e.g. testing materials for their properties, engineering design, etc.
8	• Year 8 Science fair projects - these are the same format as with Year 7 but students typically complete their project with a higher degree of independence and depth. • As part of their Health & Digestion topic, students compose a letter from a dietician advising a patient on their diet and suggesting improvements they could make.
9	• Students learn about materials and their properties, including properties of metals and non-metals, as well as nano-technology for the development of sports equipment. • Students study the use of radioactive sources in irradiating food and medical equipment, safe-handling of radioactive sources. This topic also links to nuclear energy, and use of medical tracers.
10	• The GCSE Science Live trip gives students the opportunity to hear talks from world-renowned Scientists, broadening their ideas about where a career in Science could take them. • In the bioenergetics topic, links are made to agriculture and maximising crop production through manipulation of photosynthesis. • The Biology course has links to medical careers in many areas, including fertility treatment, cancer, treatment of infectious disease, and developing new medicines.
11	• The Biology course has links to biotechnology and food production, and how Science could help solve problems with food security. • Links are also made to medical careers including genetic testing and embryo screening.

Careers links

BBC - jobs in Science - this webpage has links to a wide variety of possible careers that are related to Science. Please click on this link to access 84 different Science career profiles.