Limavady Grammar School

GCSE Subject Choices 2018

CHOOSING OPTIONAL SUBJECTS FOR GCSE

Making a Decision

1 What subjects do you like?

2 What subjects are you good at?

3 What special skills are required for the subjects you may choose?

4 What subjects particularly interest you?

5 What subjects do you need for any career you may have considered?

6 If your career choice changes, would your subject choice change?

7 How ***balanced*** is your choice?

8 Are you planning to stay at school for 6th form studies? If you might, what A-levels would your choice permit? What careers could follow such a choice?

9 Have you consulted your parents, subject teachers, careers teachers etc?

10 Are ***you*** happy with your choice?

Career Requirements

Entry to most careers requires certain **minimum** educational qualifications, eg

- 5 GCSEs (including English and mathematics);

or

- A-levels (plus GCSEs);

or

- University degree (or other professional or technical qualification).

For many careers there are no specific subject requirements. Employers may simply require that a certain level of attainment has been achieved. For example: an advertisement may state that applicants should have a university degree. The employer can therefore assume that applicants will have a certain level of intelligence and that they will have developed certain skills which may be appropriate to the job advertised. In such cases the subject studied is irrelevant - graduates (people with a university degree) in Science/Arts etc compete on equal terms. More important is the person applying - personal qualities being more important than the subject studied.

For some careers certain subjects are **preferred** - applicants with qualifications in such subjects have therefore an advantage over others, eg it may be an advantage, though not necessary, to have studied English Literature or History if you plan a career in Law.

Many other careers require qualifications in certain **specific subjects**, eg doctors are required to have a university degree in medicine and will probably have studied Chemistry, Biology and another science at A-level. Some medical schools prefer a mix of subjects and showing a flair for modern languages or Arts subjects, such as English or History, may also prove advantageous.

CHOOSING OPTIONAL SUBJECTS FOR GCSE *continued*

Career Requirements and Choosing GCSE Subjects

Many careers require, as an important first step, a minimum number of GCSEs, usually English, Mathematics, plus two, three or four others.
In many cases there is no restriction on what the *'other'* subjects are, although for some careers, subjects may be specified.

If you have a career plan

- ensure that any required and, if possible, any preferred subjects are chosen. (Consult careers staff and carry out personal research)

If you have not yet finalised your career plan

- try to choose a balanced set of subjects, closing as few careers doors as possible.

Note on GCSE Subjects

You will have studied many of these subjects already and so you should have a good idea of what they involve. However, the nature of some subjects changes considerably in year 11 and some subjects will be new to you. To help give you some idea of what the GCSE course in each subject involves, a short note on each subject has been written by specialist teachers. **Some subjects may choose to sit a module at the end of Year 11.**

Controlled Assessment – what is it?

Controlled Assessment is an important aspect of GCSE qualifications and is used for aspects of a subject that can't be readily assessed through external examination, such as research, carrying out tasks, and performance and production skills. The amount and type of controlled assessment required varies between subjects. The marks obtained in Controlled Assessment are crucial in determining the overall grade at GCSE.

Examination Subjects will form two groups

1 Compulsory Areas of Study

In addition to the statutory requirement to study Enrichment Religious Education, Learning for Life and Work and Games/PE:

(a) All pupils *must* study English and Mathematics.
(b) RE will be taken as an enrichment period. There is also the opportunity to choose it as a full GCSE.
(c) All pupils *must* choose *one* of the following science options:

(a) Single Award (1 GCSE)
(b) Double Award Science (2 GCSEs) [1]
(c) Triple Award Science (3 GCSEs) [2]

[1] Some pupils choosing this option may be encouraged to take the GCSE Single Award Science, where this is deemed to be the most appropriate pathway. The decision will be based on their overall performance in their Year 9 and Year 10 amalgamated science tracking assessments to date.

[2]"One science class will follow the "Triple Award Specification". The class will be limited to a maximum of 24 pupils. If necessary, the pupils will be selected on the basis of their overall performance in their Year 9 and Year 10 amalgamated science tracking assessments to date." If there is sufficient and appropriate interest, then a second TAS class may be considered. This will be at the discretion of the Curriculum VP"

2 Optional Subjects

Depending on their science choice, pupils may choose four, five or six subjects from the following:

- Art & Design
- French
- Geography
- Health & Social Care
- Digital Technology (Programming)
- Digital Technology (Multimedia)
- Food & Nutrition (HE)
- Further Maths
- Religious Studies
- History
- Music
- Physical Education
- Spanish
- Technology (Systems & Control)
- Technology (Product Design)
- Business Studies
- English Literature

If they have been accepted to study "Triple Award Science" (separate Biology, Physics and Chemistry), they may choose **FOUR** of the subjects from the above list. If they are studying Double Award Science they may choose **FIVE** of the subjects from the above list. If they are studying Single Award Science they may choose **SIX** of the subjects from the above list.

It should be noted that although every effort will be made to facilitate all subject combinations; some may still not be possible because of staffing limitations or insufficient interest.

(i) **The school reserves the right to withdraw subjects if there is not sufficient uptake to create a viable class or for other curricular reasons.**

(ii) Some subjects are limited in the number of pupils that can be catered for. If such subjects are over-subscribed, evidence of ability and/or aptitude, eg as shown by year 10 assessments or CAT assessments, will be used for selection.

(iii) Late changes can only be considered if class size permits

3 Prohibited Combinations

Students may not study

- Digital Technology (Multimedia) **AND** Digital Technology (Programming)
- Technology (Systems & Control) **AND** Technology (Product Design)

Subject	Art and Design		
GCSE exam board	**CCEA**		
	% Of GCSE grade	**How is it assessed?**	**Unit Title:**
Unit 1:	60%	TEACHER ASSESSED with external moderation	Core portfolio
Unit 2:	40%	TEACHER ASSESSED with external moderation	Working to a stimulus

Career opportunities:	Students holding a GCSE in Art & Design can use their skills in many areas of design including: • Pottery • Make up • Hair • Set • Costume • Landscape • Product design • Photography • Graphic design • Museum Curator • Animator • Film

Other information:	Colour awareness and hand and eye coordination are useful in many jobs.

Subject	Biology		
GCSE exam board	CCEA		
	% Of GCSE grade	How is it assessed?	Unit Title:
Unit 1:	35%	External written exam Foundation Tier: 1 hour 15 mins Higher Tier: 1 hour 30 mins	Cells, Living Processes and Biodiversity
Unit 2:	40%	External written exam Foundation Tier: 1 hour 30 mins Higher Tier: 1 hour 30 mins	Body Systems, Genetics, Micro-organisms and Health
Unit 3:	7.5% 17.5%	Students carry out two pre-release practical tasks 1 written examination 1hr (Higher Tier) or 1hr (Foundation Tier).	Practical Skills

Career opportunities:	Study to A level leading to careers in the fields of medicine, nursing, dentistry, veterinary science, speech and language therapy, pharmacology, physiology, biomedical science, forensic science and agriculture.

Other information:	One class will follow the GCSE (triple award) specification. The class will consist of a maximum of 24 pupils who have opted to take Triple Award Science and the pupils will be selected on the basis of their overall performance in their Year 9 and Year 10 amalgamated science assessments to date. If there is sufficient and appropriate interest, then a second TAS class may be considered. This will be at the discretion of the Curriculum VP.

Subject	Business Studies		
GCSE exam board	**CCEA**		
	% of GCSE grade	**How is it assessed?**	**Unit Title**
Unit 1	40%	External Written Exam 1 hour 30 minutes	Starting a Business
Unit 2	40%	External Written Exam 1 hour 30 minutes	Developing a Business
Unit 3	20%	Controlled Assessment (Internally Assessed)	Planning a Business
Career Opportunities	Potential career opportunities include: Marketing, Finance, Accounting, Economics, Human Resources, Public Relations, International Business and starting their own business.		
Other Information	This course provides pupils with an insight into starting, developing and running a business. Topics such as Marketing, Finance and International Business are covered throughout the two year course. Candidates will also have the opportunity to plan and develop their own business plan. All of which will develop their entrepreneurial skills. In the event of the class being over-subscribed, pupils will be selected through appropriate careers guidance.		

Subject	Chemistry		
GCSE exam board	CCEA		
	% Of GCSE grade	How is it assessed?	Unit Title:
Unit 1:	35%	1hr15mins	Structures, Trends, Chemical Reactions / Quantitative Chemistry and Analysis
Unit 2:	40%	1hr45mins	Further Chemical Reactions, Rates and Equilibrium, Organic Chemistry
Unit 3:	7.5%	Booklet A No time limit Marked externally, carried out in centre in final year of course	Practical Skills
	17.5%	Booklet B 1hr	Questions based on practical context

Career opportunities	Health -Pharmaceuticals, Medicine, Dentistry, Veterinary Science, Nursing and other Healthcare Professions. Engineering – in particular chemical engineering Analytical – including Forensic Science, Toxicology, Clinical Biochemistry Food Science and Agriculture – chemistry is helping us cope with increasing pressures on food, water and other natural resources. Materials – incorporating Nanotechnology and Polymer Technology. The development of new materials is the foundation of advances in electronics, sports and many other areas.

Other information	One class will follow the GCSE (triple award) specification. The class will consist of a maximum of 24 pupils who have opted to take Triple Award Science and the pupils will be selected on the basis of their overall performance in their Year 9 and Year 10 amalgamated science assessments to date. If there is sufficient and appropriate interest, then a second TAS class may be considered. This will be at the discretion of the Curriculum VP

Subject	Digital Technology: Multimedia		
GCSE exam board	CCEA		
	% Of GCSE grade	How is it assessed?	Unit Title:
Unit 1:	30	External Written Exam (1 hour)	Unit 1: Digital Technology
Unit 2:	40	External Written Exam (1 ½ hours)	Unit 2: Digital Development Concepts
Unit 3:	30	Controlled Assessment	Unit 3: Digital Development Practice

Career Opportunities:	Opportunities for employment in the IT industry have never been better. There is an incredibly high demand in Northern Ireland, and further afield, for the skills and abilities that can be developed through this subject. Career avenues may include: Web Designer/Developer, Multimedia Designer, On-line publishing (editorial/design) and User Interface Design.

Other information:	GCSE Digital Technology: Multimedia is a great way to develop critical thinking, analysis and problem-solving skills which can be transferred to further learning and to everyday life. This is an excellent stepping-stone for future study of Computer Science or employment in the field of Computer Science.

OR

Subject	Digital Technology: Programming		
It should be noted that those pupils who wish to study Digital Technology – (**Programming must have a strong academic profile, excelling in areas such as Maths and Physics.**) Programming is a highly academic subject and will require significant determination, resilience, problem solving and perseverance. Pupils must be self-motivated and display a genuine interest in computing.			
GCSE exam board	CCEA		
	% Of GCSE grade	How is it assessed?	Unit Title:
Unit 1:	30	External Written Exam (1 hour)	Unit 1: Digital Technology
Unit 4:	40	External Written Exam (1 ½ hours)	Unit 4: Digital Development Concepts
Unit 5:	30	Controlled Assessment	Unit 5: Digital Development Practice

Career opportunities:	Career opportunities may include game design, database programmer/administrator, programmer, security analyst, software developer, software engineer, digital forensics and big data analytics.

Other information:	Pupils who have studied GCSE Digital Technology: Programming will be well-placed for further study of Computer Science or Software Systems Development at A-Level and beyond. This subject is suitable for those who have an aptitude for subjects that require structured reasoning, such as Mathematics and Physics.

Subject	English Language		
GCSE exam board	CCEA		
	% Of GCSE grade	How is it assessed?	Unit Title:
Unit 1:	30%	External written examination 1 hour 40 mins	Writing for Purpose and Audience and Reading to Access Non-Fiction and Media Texts
Unit 2:	20%	Controlled Assessment	Speaking and Listening
Unit 3:	20%	Controlled Assessment	Studying Spoken and Written Language
Unit 4:	30%	External written examination 1 hour 40 mins	Personal or Creative Writing and Reading Literary and Non- Fiction Texts

Career opportunities:	All branches of the legal profession; broadcasting; journalism; theatre; publishing; translating; education; marketing and advertising.

Other information:	You will need a good pass grade in your GCSE English Language (at least a C*) for virtually any job/career path/course of study at third level

Subject	English Literature		
GCSE exam board	CCEA		
	% Of GCSE grade	How is it assessed?	Unit Title:
Unit 1:	30%	External written examination 1 hour 45 mins	The Study of Prose
Unit 2:	50%	External written examination 2 hours	The Study of Drama and Poetry
Unit 3:	20%	Controlled Assessment	The Study of Shakespeare

Career opportunities:	All branches of the legal profession; broadcasting; journalism; theatre; publishing; translating; education; marketing and advertising.

Other information:	Pupils who choose to study GCSE English Literature will be excellently equipped for further study of literary subjects at A level, or beyond. Our GCSE in English Literature encourages students to be enthusiastic, independent, imaginative, critical and analytic readers – transferable skills considered vital in any professional career, whether it be in the Arts, Social Sciences or Science.

Subject	Food and Nutrition		
GCSE exam board	CCEA		
	% Of GCSE grade	How is it assessed?	Unit Title:
Unit 1:	50%	2 hour exam at the end of Year 12	Food and Nutrition
Unit 2:	50%	Controlled Assessment	Practical Food and Nutrition; pupils complete one task

Career opportunities:	Progression to AS Nutrition and Food Science. Human Nutrition, Dietetics, Food Design, Environmental Health, Nursing, Radiotherapy, Teaching, Food Science and Technology

Other information:	This course allows students to develop their knowledge and understanding of food and nutrition. It provides opportunities for students to develop confidence in demonstrating high level practical food skills.

Subject	Geography		
GCSE exam board	**CCEA**		
	% Of GCSE grade	**How is it assessed?**	**Unit Title:**
Unit 1:	40%	External written exam 1 hour 30 minutes	Unit 1: Understanding Our Natural World
Unit 2:	40%	External written exam 1 hour 30 minutes	Unit 2: Living in Our World
Unit 3:	20%	External written exam 1 hour	Unit 3: Fieldwork

Career opportunities:	There are a large number of careers where the study of Geography would be considered a distinct advantage, for example, Architecture, the Civil Service, Civil Engineering Marketing, Town and Country planning, Transport and Communications, Tourism, the Armed Services and Civil Aviation. Geography graduates, however, are also increasingly finding that their skills open up careers for them in Accountancy, Banking, Insurance and Law.

Other information:	The course will give you the chance to get to grips with some of the big questions which affect our world and enjoy interesting topics such as weather and climate, world development, coasts, rivers and hazards. There is also the opportunity to enjoy local fieldwork. There has never been a better time to study geography so make the choice to go places with geography by taking geography at GCSE.

Subject	Health and Social Care		
GCSE exam board	CCEA		
	% Of GCSE grade	How is it assessed?	Unit Title:
Unit 1:	50%	1 ½ hour External written examination	Personal Development, Health and Well Being
Unit 2:	50%	Controlled Assessment	Working in the Health, Social Care and Early Years Sectors

Career opportunities:	Childcare, nursing, social work, teaching, occupational therapy, speech therapy and similar careers.

Other information:	Students will gain knowledge and understanding of the health, social care and early years sectors. This course will increase awareness of the issues affecting these sectors.

Subject	History		
GCSE exam board	CCEA		
	% Of GCSE grade	How is it assessed?	Unit Title:
Unit 1:	60%	1 written exam lasting 1 hr 45 mins at the end of Yr 11/12	Study in depth: Germany 1933-45; Changing Relationships between Britain, Northern Ireland and the Republic of Ireland 1965-98
Unit 2:	40%	1 written exam lasting 1 hr 15 mins at the end of Yr 12	Outline study: The Cold War 1945-2003
Unit 3:	N/A	No longer Controlled Assessment	N/A

Career opportunities:	Jobs directly related to a history degree include: • Heritage Manager • Historic buildings inspector/conservation officer • Museum education officer • Museum/gallery curator • Museum/gallery exhibitions officer • Secondary school teacher Jobs where a History degree would be useful include: • Academic librarian • Archaeologist • Archivist • Journalist • Civil Service administrator • Information officer • Politician's assistant • Publishing • Solicitor/Barrister

Other information:	GCSE Trip to Germany (Berlin or Munich) may be offered KS3 Local history trips Law Club Support for essay competitions and Debating

Subject	Mathematics		
GCSE exam board	CCEA		
	% of GCSE grade	How is it assessed?	Unit Title:
Unit 1:	45	2 hour exam	Either M3 orM4
		1¾ hour exam	or M2
Unit 2:	55	1¼ hour exam (no calculator) and 1¼ hour exam (calculator)	Either M7 or M8
		1⅙ hour exam (no calculator) and 1⅙ hour exam (calculator)	or M6

Subject	Further Mathematics		
GCSE exam board	CCEA		
GCSE	% of GCSE grade	How is it assessed?	Unit Title:
Unit 1:	50	Written examination lasting 2 hours	**Pure Mathematics** students investigate algebra, trigonometry, differentiation, integration, logarithms, matrices and quadratic inequalities.
Unit 2:	50	Written examination lasting 2 hours	**Applications** includes exploring kinematics, vectors, forces, Newton's Laws of Motion, moments, understanding and using statistical terminology, measures of central tendency and measures of dispersion, probability, and bivariate analysis.

Career opportunities:	Further Mathematics can help students progress to other studies that require mathematical knowledge and skills, for example higher level science, geography, technology or business.

Entry requirements:	A score of 70% in the year 10 June examinations is the minimum standard. (Pupils considering this should have over 85% in Tracking tests.)

Subject	Modern Languages		
GCSE exam board	CCEA French and Spanish		
GCSE	**% Of GCSE grade**	**How is it assessed?**	**Unit Title:**
Unit 1:	25%	Exam at the end of Year 12 35 /45 minutes	Listening
Unit 2:	25%	Exam at the end of Year 12 7-12 minutes (+ 10 minutes preparation time)	Speaking
Unit 3:	25%	Exam at the end of Year 12 50 minutes / 1 hour	Reading
Unit 4:	25%	Exam at the end of Year 12 1 hour / 1 hour 15 minutes	Writing

Career opportunities:	Teaching, Travel and Tourism, Journalism, Business, Banking and Finance, Interpreting and Translation, Diplomatic Service, Law, Engineering, Politics and International Relations, Foreign Aid and Charity Work

Other information:	It is hoped that students studying one or more languages at GCSE Level will have the opportunity to spend some time in the country of the language that they are studying on either an exchange or a short visit.

Subject	Music		
GCSE exam board	CCEA		
	% Of GCSE grade	How is it assessed?	Unit Title:
Unit 1:	30%	Composition portfolio of 3 to 6 minutes, internally assessed externally moderated	Composing and Appraising
Unit 2:	35%	Solo and ensemble performance and viva voce, visiting examiner	Performing and Appraising
Unit 3:	35%	Two 45 minute tests of aural perception	Listening and Appraising

Career opportunities:	• Creative Arts: encompassing music, teaching, therapy, writing and arts administration • Education: private and public sector including schools, further and higher education • Media: expanding opportunities in television, radio, film, corporate production and interactive media

Other information:	• Pupils would usually have regular vocal or instrumental lessons, although this is not a requirement for entry

Subject	Physical Education		
GCSE exam board	CCEA		
	% Of GCSE grade	How is it assessed?	Component Title:
Component 1:	25%	External Written exam at the end of YR12 (1 hr and 15mins)	Factors Underpinning Health and Performance
Component 2:	25%	External Written exam at the end of YR12 (1 hr and 15mins)	Developing Performance
Component 3:	50%	Controlled Assessment (student performs 3 physical activities or sports) 3 x 50 = 150 marks Students are assessed on the quality of analysis and evaluation 1 x 50 = 50 marks Total = 200 marks	Individual Performances in Physical Activities and Sports

Career opportunities:	It helps students to develop a well-rounded skill set for adult life and employment. It encourages students to be inspired, motivated and challenged and enables them to make informed decisions about further learning opportunities and career pathways. It provides a good base for further study at advanced level, for example GCE Sports Science and the Active Leisure Industry.

Other information:	**Entry Requirements:** **Pupils would be expected to display a high level of performance in at least two sporting activities one of which may be outside of school. Alongside this, pupils must have a reasonable standard of fitness and must have achieved Level 6.5 in the Bleep test (Females) and Level 7.5 (Males), by June of Year 10.** Students are introduced to health, the active leisure industry, human autonomy and physiology, physical fitness and performance in a range of physical activities and sports. The three components of the specification are integrated, so what students learn for the written examinations is applied in the physical component and vice versa.

Subject	Physics		
GCSE exam board	**CCEA**		
GCSE	**% Of GCSE grade**	**How is it assessed?**	**Unit Title:**
Unit 1:	37.5 %	1 hr 30 min paper	Motion, force, Density and Kinetic Theory, Energy and Atomic and Nuclear Physics
Unit 2:	37.5 %	1 hr 30 min paper	Waves, Light, Electricity, Magnetism, Electromagnetism and Space Physics
Unit 3:	7.5%	2 hour practical exam	Practical Skills
	17.5%	1 hour 15 min written paper	Practical Skills

Career opportunities	Engineering (mechanical, civil, electrical and aerospace), medicine, sciences, research, teaching, nursing, dentistry, veterinary science, technology, forensic science, medical physics, radiography, finance, computer science and material science

Other information	One class will follow the GCSE (triple award) specification. The class will consist of a maximum of 24 pupils who have opted to take Triple Award Science and the pupils will be selected on the basis of their overall performance in their Year 9 and Year 10 amalgamated science assessments to date. If there is sufficient and appropriate interest, then a second TAS class may be considered. This will be at the discretion of the Curriculum VP.

Subject	Religious Studies		
GCSE exam board	**CCEA**		
	% Of GCSE grade	**How is it assessed?**	**Unit Title:**
Unit 1:	50%	1 written exam lasting 1hr 30mins	Christianity through a study of the Gospel of Matthew
Unit 2:	50%	1 written exam lasting 1hr 30mins	An Introduction to Christian Ethics

Career opportunities	Religious Studies teaches the skill of presenting an argument as well as listening to and understanding others point of view. It is therefore a brilliant choice for students who are interested in working with people and arguing a case. e.g. Law, Medicine, Nursing, Health Care, Journalism, Primary Teaching, Youth Work, Politics, Psychology, Counselling, Secondary Teaching, Sports Psychology, Business, Management, Digital Ethics.

Other information	Religious studies is current and relevant to issues being addressed in the news and gives pupils opportunity to develop an understanding of the world around them and why people have differing opinions and beliefs. Students study Christian beliefs and the reasons behind these, basing their study on the Gospel of Matthew. This is the first book of the New Testament and is factual and straightforward to learn focusing on areas such as: • Life of Jesus • Miracles • Parables • Application to issues today The second area pupils study is ethical issues, exploring these primarily from a Christian perspective, but also looking at different religious beliefs and practices surrounding the following areas: • Abortion • Euthanasia • Prejudice and equality • Gender issues • War • Capital punishment • Relationships and family • Human infertility and IVF • Surrogacy

Subject	Single Award Science (GCSE Only)		
GCSE exam board	CCEA		
	% Of GCSE grade	How is it assessed?	Unit Title:
Unit 1:	25%	1 written exam lasting 1hr (Higher Tier) or 1hr (Foundation Tier). Usually sat in February of Year 11.	**Biology:** Cells, Food and diet ,Chromosomes and genes, Co-ordination and control, Reproductive system, Variation and adaptation Disease and body defences, Ecological relationships
Unit 2:	25%	1 written exam lasting 1hr (Higher Tier) or 1hr (Foundation Tier). Usually sat in November of Year 12.	**Chemistry:** Acids, bases and salts, Elements, compounds and mixtures Atomic structure and Periodic Table, Bonding, Materials, Symbols, formulae and Equations, Qualitative analysis, Metals and the reactivity series, Rates of reaction, Organic chemistry
Unit 3:	25%	1 written exam lasting 1hr(Higher Tier) or 1hr (Foundation Tier). Usually sat in May/June of Year 12.	**Physics:** Electrical circuits, Household electricity, Energy, Electricity Generation, Heat transfer, Waves, Road transport and safety reducing reliance on fossil fuels, Radioactivity, Earth in space
Unit 4:	7.5% 17.5%	Students carry out two pre-release practical tasks (from two of Biology, Chemistry and Physics) 1 written examination 1hr 15 mins (Higher Tier) or 1hr (Foundation Tier).	Practical skills assessment

Career opportunities:	Careers in science, research, engineering and technology which do not require an A- level science are an option as a career.

Other information:	One class will follow this specification which is worth one GCSE. Pupils follow a modular pathway. GCSE Single Award is not a suitable method of progression to studying Biology, Chemistry, Physics or Life & Health Science to A- level, but it is considered to be a useful pathway for some students.

Subject	Double Award Science		
GCSE exam board	**CCEA**		
	% Of GCSE grade	**How is it assessed?**	**Unit Title:**
Biology Unit 1:	11%	External written exam Foundation and Higher Tiers: 1 hour	Living Processes and Biodiversity
Chemistry Unit 1:	11%	External written exam Foundation and Higher Tiers: 1 hour	Structures, Trends, Chemical Reactions, Quantitative Chemistry and Analysis
Physics Unit 1:	11%	External written exam Foundation and Higher Tiers: 1 hour	Motion, Force, Energy, Moments, Energy, Density, Kinetic Theory, Radioactivity, Nuclear Fission and Fusion
Biology Unit 2:	14%	External written exam Foundation and Higher Tiers: 1 hour	Body Systems, Genetics, Micro-organisms and Health
Chemistry Unit 2:	14%	External written exam Foundation and Higher Tiers: 1 hour	Further Chemical Reactions, Rates and Equilibrium, Calculations and Organic Chemistry
Physics Unit 2:	14%	External written exam Foundation and Higher Tiers: 1 hour	Waves, Light, Electricity, Magnetism, Electromagnetism and Space Physics
Unit7 **Practical Skills**	7.5% 17.5%	Students carry out three pre-release practical tasks (Biology, Chemistry and Physics) 1 written examination 1hr 30 mins (Higher and Foundation Tiers: 30 mins Biology, 30 mins Chemistry, 30 mins Physics)	Practical Skills

Career opportunities:	Study of Biology, Chemistry or Physics to A- level leading to careers in the fields of medicine, nursing, dentistry, veterinary science, speech and language therapy, pharmacology, physiology, biomedical science, forensic science and agriculture. Manufacturing and medical occupations to computer gaming and the finance sector. Analytical chemistry, industrial pharmaceuticals, nursing and radiography.

Other information:	Double Award Science is studied in the time allocated to two other subjects and it is worth two GCSEs. It is a suitable pathway for progression to study Biology, Chemistry, Physics or Life & Health Science at A-level provided individual subject entry criteria are met.

Subject	Technology and Design (Systems)		
You should seek advice from the Technology department and decide very carefully, which Technology & Design option you wish to study			
GCSE exam board	CCEA		
GCSE	**% Of GCSE grade**	**How is it assessed?**	**Unit Title:**
Unit 1:	20%	**Externally assessed written paper** Examination lasts **1 hour**	**Technology and Design Core**
Unit 2:	20%	**Externally assessed written paper** Examination lasts **1 hour** Element 2: Mechanical and Pneumatic Control Systems.	**Systems and Control** **Mechanical and Pneumatic Control Systems**
Unit 4:	20%	**Controlled assessment 1** Design assignment.	**Design Assignment**
Unit 5:	40%	**Controlled assessment 2** We set the project. Students take either: Element 1: Systems Design and Manufacturing; or Element 2: Product Design and Manufacturing.	**Design Project**

Career opportunities:	Technology (systems) combined with Maths and Physics is an excellent choice for all engineering based careers. With a firm background in electronics, materials, mechanisms, fluid control, Computer Numerical Control and Computer Aided Design there are many other career paths that would be assisted in our modern world by a GCSE in Technology and Design.

Other information:	Technology and Design (Systems) coursework accounts for 60% of the full GCSE. Many pupils will know before they even sit their exam that they only need a few marks to attain a pass grade. However, we set our sights very much higher than that. You can choose your own practical project title. We have a wide range each year e.g. sports score boards, electronic counters and displays, warning signs, various alarms etc... A Technology portfolio is ten A3 pages. This will average out at less than one A4 page each week. Written coursework will be the majority of homework set throughout the two years. Technology students have opportunities to: study electronic and microelectronic control systems, mechanisms, pneumatic control systems, manipulate new materials, practical work, CNC manufacture, three dimensional modelling, programming and many more. You will need: an interest in the subject, access to a computer, to be highly organised and have the ability to work independently to meet deadlines.

Subject	Technology and Design (Product Design)
GCSE exam	CCEA

You should seek advice from the Technology department and decide very carefully, which Technology & Design option you wish to study

GCSE	% Of GCSE grade	How is it assessed?	Unit Title:
Unit 1:	20%	**Externally assessed written paper** Examination lasts **1 hour**	**Technology and Design Core**
Unit 3:	20%	**Externally assessed written paper** Examination lasts **1 hour**	**Product Design**
Unit 4:	20%	**Controlled assessment 1** Design assignment.	**Design Assignment**
Unit 5:	40%	**Controlled assessment 2** We set the project. Students take either: Element 1: Systems Design and Manufacturing; or Element 2: Product Design and Manufacturing.	**Design Project**

Career opportunities:	Technology (Product Design) is an excellent choice for a wide range of careers. Pupils will have the opportunity to be innovative when designing using a wide range of materials, components, fabrication techniques and manufacturing practices. They will explore the social responsibility of product design and market influences. Product Design develops knowledge, understanding and skills in a range of situations which develop core skills and employment-related experiences that are valued by employers, professional organisations and academic institutions.
Other information:	Technology and Design (Product Design) coursework accounts for 60% of the full GCSE. Many pupils will know before they even sit their exam that they only need a few marks to attain a pass grade. However, we set our sights very much higher than that. You can choose your own practical project title. We have a wide range each year e.g., primary school learning aid, portable baby changing table, etc... A Technology portfolio is ten A3 pages. This will average out at less than one A4 page each week. Written coursework will be the majority of homework set throughout the two years. Technology students have opportunities to: analyse existing products, develop practical solutions to consumer needs, wants and opportunities, design and make quality products and understand that designing and making reflect and influence cultures and societies, understand that products have an impact on lifestyle, develop their creativity and critical analysis skills, make links between existing solutions, technological knowledge and the principles of good design, explore how aesthetic, technical, economic, environmental, ethical and social dimensions interact to shape designing and making, develop decision-making skills, consider sustainability and gain insight into related sectors such as manufacturing and engineering. You will need: an interest in the subject, access to a computer, to be highly organised and have the ability to work independently to meet deadlines.