



January, 2020.

Dear Parent,

As your son/daughter considers GCSE choices for next year, I trust that you will find the contents of this Booklet informative and helpful. It is designed to assist you to become involved with your son or daughter as he or she tackles the question of which subjects to continue or which to discontinue or whether to start a new subject in Year 11. It must, of course, be remembered that subject choices are made within the constraints of the Northern Ireland Curriculum.

Your son/daughter will have the opportunity to meet with his/her careers teacher in the coming weeks to discuss options. In June, after the Summer exams, a further meeting will take place to confirm choices, at which point you will be invited to attend with your son/daughter if you wish.

I assure you that should difficulties arise in this decision-making process now, or at a later date, I, or one of my colleagues, will be pleased to meet you and discuss your concerns.

Yours sincerely,

S.W. Black

S.W. Black (Principal)

You will soon be making important decisions about the courses to be studied for GCSE. In the Key Stage 4 Curriculum we aim to provide breadth and balance by offering access to a wide range of courses

### THE IMPORTANCE OF BREADTH AND BALANCE

In order to keep as many options open as possible it is essential to ensure that your choice is broad and balanced. Employers value and actively look for employees who have a wide range of skills. It is very important that you choose a range of subjects which provide you with a broad skills set. We strongly recommend that your Key Stage 4 programme comprises subjects from each of the learning areas. Your Careers teacher will discuss this with you and help to ensure that your choice is indeed broad and balanced.

Remember: you should aim to keep as many pathways open as possible and develop a wide range of skills which employers and universities expect to see.

### HELPING YOU TO MAKE INFORMED CHOICES

To help you make informed decisions about your choice of subjects you will have an opportunity to:-

- attend an information session during which you will hear about the choices open to you; Monday, 3<sup>rd</sup> February, 2020.
- attend a series of short talks about the 'new' subjects available at Key Stage 4; Early February.
- carry out personal research which will help to inform your choice of subjects;
- follow a programme of Careers Education which will help with your personal career planning;
- attend careers guidance interviews in which you meet with your careers teacher to discuss your options see "Preparing for Your Careers Interview". You will be asked to complete a short questionnaire in preparation for your careers guidance interview. This will provide information about your interests, aptitudes and aspirations. You will also be asked to record any questions that you want to ask during the meeting with your careers teacher;
- attend the school's annual Careers Convention; (Thursday, 6<sup>th</sup> February)
- make use of the wide range of resources available in the Careers Library.

Your parents will be invited to attend an information event at a consultation evening, **(Wednesday, 12<sup>th</sup> February)** during which they will have an opportunity to meet with your current subject teachers. Before the end of February your parents will be invited to attend your interview with your careers teacher at which your choices will be confirmed. In June you will meet with your careers teacher to review your decisions.

A Subject Choice Form will be completed when you have discussed your choices with your careers teacher. We will ask you to get your parents to sign this form. The form must be returned to your careers teacher by **Wednesday**, **26**<sup>th</sup> **February**.

At Key Stage 4 almost all pupils take:-

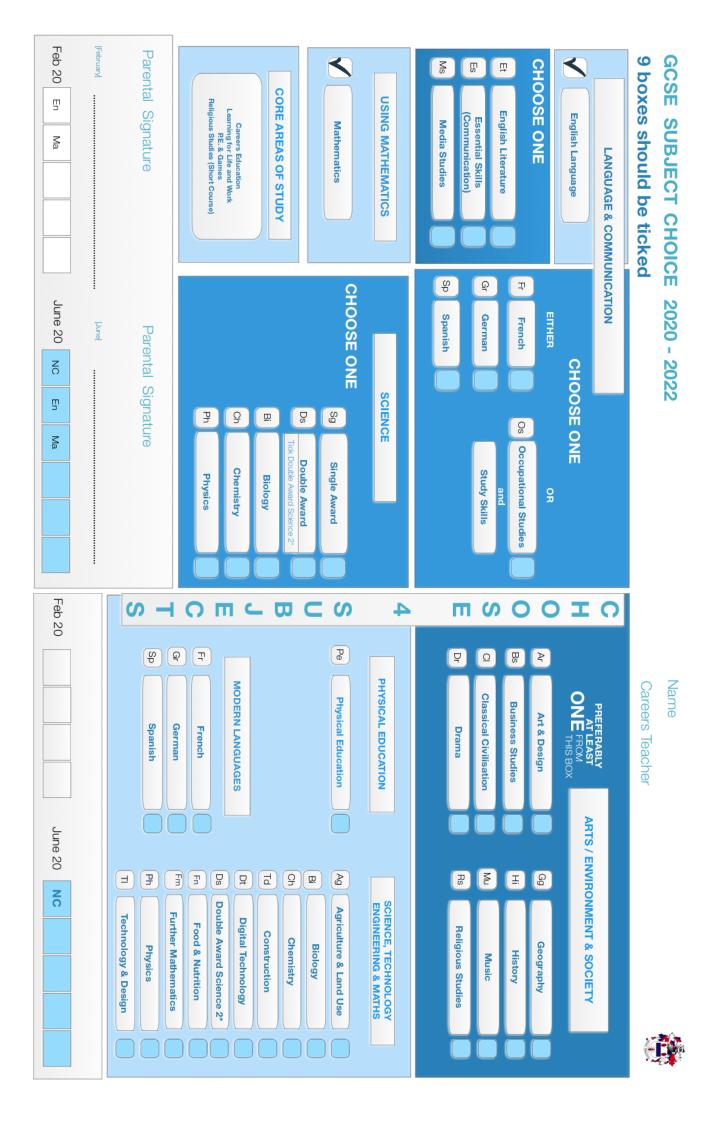
- 9 full or equivalent GCSE courses;
- A short GCSE course in Religious Studies, where Religious Studies is not taken as a full course;
- Learning for Life and Work : Local and Global Citizenship / Personal, Social and Health Education, Careers Education and Education for Employability (non-exam);
- Classes in Physical Education / Games (non-exam).

#### Please note:-

- All pupils take a GCSE in English and Mathematics
- Pupils select:-
  - Either English Literature or Media Studies or Level 2 Certificate in Essential Skills Communication\*
  - a modern language or a Level 2 course in Occupational Studies with a Study Skills Programme
  - at least one Science course
  - and 4 other courses, preferably including at least one course from the Arts/Environment & Society areas of learning

\*The Essential Skills Course provides an opportunity to consolidate and further develop skills in Communication, leading to a qualification at Level 1 or Level 2. The focus will be on Speaking and Listening, Reading and Writing skills, all of which are also important components of the G.C.S.E. English Language Course. This skills development will provide an ideal opportunity to strengthen literacy skills and support core areas which will be assessed within G.C.S.E. English Language. Pupils will be guided in relation to taking this course on the basis of their overall attainment and their attainment in English. Further information about the course can be obtained from the English Department.

- Pupils choosing only one language must select it in the Language and Communication block.
- Pupils choosing Double Award Science must select Double Award as one of their 4 other choices.
- Some GCSE courses are offered at Higher or Foundation Tier. The majority of pupils will study Higher Tier but Foundation Tier is available if appropriate. Parents will be consulted before a final decision is made to enter a pupil for Foundation Tier or an alternative qualification. It is not possible to continue study of a subject to 'A' level if it has been taken at GCSE Foundation level.
- As far as the Key Stage 4 programme is concerned, occasionally, restrictions in choices and/or courses may occur, given time-tabling constraints and/or viability of classes. Every effort is made, however, to accommodate pupils' initial choices within the framework presented.
- In the event of a course being over-subscribed, selection criteria will be applied.
- While care has been taken to ensure that the information contained in this publication was accurate at the time of going to press, changes may ensue as a result of external influences.



#### Consider the following:-

- How can you keep as many career options open as possible? It is possible to choose a combination of subjects which will allow a wide range of options. You will have an opportunity to discuss this in your careers classes. Remember it is important to choose a range of subjects which ensure that your learning programme is broad and balanced.
- What subjects do you like? You will perform best and get the best results when you are enjoying your work and when you are fully committed to it.
- Where does your ability lie?

Interest in a subject must be matched by the necessary ability. If you cannot perform to an adequate standard you are likely to lose interest and confidence. The best people to advise you are your teachers, who are able to assess your ability and are familiar with the demands of their subjects.

• What subjects do you need?

You may not need any particular subjects; but many university departments do have specific requirements - it is worth spending time gathering information about university entry requirements before making your choice of subjects. Some general information is provided later in this booklet.

Talk to your careers teacher, subject teachers, parents - gather as much information as possible, from as many sources as possible, before making any decisions.

Don't panic - there is plenty of support available and although we cannot make the choices for you, we can provide lots of valuable information and guidance.

#### Some useful websites:-

#### **Examination Boards**

Detailed specifications for each subject offered at G.C.S.E. can be viewed at these sites. All subjects offered are with CCEA except Media Studies (Eduqas) and Classical Civilisation (OCR).

- <u>www.ccea.org.uk</u> Northern Ireland Council for the Curriculum, Examinations and Assessment (CCEA)
- www.ocr.org.uk Oxford Cambridge and RSA (OCR)
- www.eduqas.co.uk The Welsh Joint Education Committee (WJEC)

#### Local Universities - Information provided about Admissions criteria for specific courses

www.qub.ac.uk Queen's University, Belfast.

www.ulster.ac.uk Ulster University

<u>www.prospects.ac.uk</u> } excellent resources - detailed information about a range of careers. <u>www.careersbox.co.uk</u> } Refers to work conditions, entry requirements, training, vacancies, related courses etc.

### PREPARING FOR YOUR CAREERS INTERVIEW

It is very important that you prepare thoroughly for your Careers Guidance interview. You will benefit most from the meeting when you come prepared, having thought about your options and carried out some research.

#### Before the interview:-

- Read the Subject Choice booklet carefully. Think about your provisional choice of subjects discuss it with your parents.
- List any questions or concerns you have in the 'Interview Notes' card. You will use this card during the interview to remind you of the questions you need answered. This should be kept in your Personal Career Plan.
- Think carefully about the next stage of your Personal Career Planning e.g. what research do you need to do? Do you need to find more information about a particular career, job category, subject?

### Remember

It is important to keep setting research targets – they don't have to be huge projects, they may simply involve seeking the answer to a question.

#### The Interview

- Your appointment time.
   Your Careers Teacher will notify you of your appointment time. The interview will take place in one of the Careers Rooms wait for your teacher in the main Careers library.
- Getting out of Class

If your interview is during class time, it is very important that you ask your teacher's permission before attending the interview. Your Careers teacher will give you a permission slip which you then give to your teacher. Make sure that you give this to your teacher <u>before</u> your careers interview. Under <u>no</u> circumstances should you miss a class test or assessment. If the interview time doesn't suit, then talk to your careers teacher as soon as possible – another appointment time can be arranged.

#### What to bring

• Your Personal Career Plan folder – make sure that it is up-to-date and includes your Research Action Plan and Interview Notes card.

#### During the Interview

Don't be shy! This is your opportunity to ask questions and gather information. It is an informal chat and you should find it very useful – so make the most of it.

#### After the Interview

Jot down the key points, e.g. advice or guidance given, further research to be undertaken, targets etc. Complete the next section of your research action plan, i.e. set yourself a research target and completion date.

Teacher Training in Scotland – Pupils who wish to follow teacher-training courses in Scotland must pass **English Literature** at GCSE.

Medicine Courses – Pupils who wish to follow a Medicine course must have **Double Award Science** OR **all three Sciences** at GCSE. (Check Entry Criteria carefully on individual university website.)

Some courses/careers require specific subjects. These are general guidelines on subjects which may be required for admission to Undergraduate Degree Courses.

It is stressed that these guidelines are very general - requirements vary slightly between institutions. They have been produced for university entrance in September 2019 and may have changed by the time you reach Year 14. It must be emphasised very forcefully that it is by no means a definitive statement of requirements and should not be treated as such. You should check individual university websites in order to gather comprehensive information about entry requirements for a particular discipline. Subjects mentioned refer to Advanced and/or 'AS' level subjects.

Accountancy/ Finance	Often no specific requirements, although some universities require or prefer Mathematics.						
Animator	An HND, Foundation degree or degree in Art and Design, Media Production or a related area is usually required.						
Architecture	A balance between arts and science subjects. Mathematics sometimes preferred. Evidence of artistic ability - either GCSE, 'AS' or 'A' level Art and Design, or a portfolio of art work is usually required.						
Art/Drama/ Music Therapist	Art, Drama or Music as a first degree or a degree in Psychology, Education or Nursing.						
Artistic/Theatre Director	Most Artistic Directors hold a relevant degree in either English or Drama etc.						
Business Studies	Normally no specific subject requirements.						
Computer Science	Mathematics is often required but one of Chemistry, Computing, ICT, or Physics may be acceptable.						
Dentistry	Chemistry and Biology.						
Economics	Mathematics is often preferred or required. Economics is sometimes desirable.						
Engineering	Mathematics and Physics is often preferred, or required, as the second subject. Some universities accept Technology, Biology, Chemistry, Geography or I.C.T. if Physics is not offered.						
Environmental Science	At least one, and preferably two, of Biology, Chemistry, Physics, Geography and Mathematics.						
Forensic Science	Biology or Chemistry. Chemistry may be required.						
Graphic Designer	The majority of entrants have a degree in a visual arts subject such as Graphic Design, Fine Art, Illustration or 3 D design.						
Image Consultant	Some entrants hold a Foundation Degree in Business Studies or Sales and Marketing.						
Interpreter	Most entrants have a degree in either a Modern Language or Translation and Interpreting.						

Interior Design	Many applicants also complete a Foundation Diploma in Art and Design.
Law	Usually no specific requirements. Some Scottish universities require at least English Literature at G.C.S.E.
Media Researcher	Many entrants have a degree or HND in a relevant subject such as English or Media Studies.
Medicine	Chemistry and one of Biology, Physics or Mathematics. Biology is often required, at least to 'AS' level.
Museum/Art Gallery Curator	A degree in either Archaeology, History of Art, Fine Art, English Literature, Modern Languages.
Nursing	Often no specific subjects although a science may be required. Some Scottish universities require English Literature at G.C.S.E.
Occupational Therapy	Sometimes no specific subjects, although some universities require a science or health related subject and some Scottish universities require English Literature at G.C.S.E.
Optometry	Normally two of Biology, Physics, Mathematics, Chemistry. Occasionally Biology or three sciences are required.
Pharmacy	Chemistry and at least one of Biology, Physics, Mathematics. Biology or Mathematics are occasionally preferred or required as the second or third subject.
Physiotherapy	Normally one science, with Biology being preferred or required. Occasionally two sciences may be required.
Psychology	Sometimes no specific subject requirements although some universities require at least one science.
Radiography	At least one science.
Speech Therapy	A range of subjects which may include English, Mathematics, Science or a Modern Language. A science may be required.
Sport and Exercise Science	Most courses require at least one science.
Teacher Training	Stranmillis University College – <b>Primary Education.</b> At least one subject required from – Art and Design, English, Geography, History, Mathematics, Music, Physical Education, Religious Studies, Science.
	Stranmillis University College – <b>Secondary Education.</b> Subjects which can be taken as main subjects – Business and Enterprise, Mathematics and Science, Religious Studies, Technology and Design – These all require subject related A-levels.
	<b>Note:</b> Teacher Training Courses in Scotland require applicants to have GCSE English Literature.
Translator	Most translators will have a relevant degree in either one or more Modern Languages, or a Modern Language combined with a specialist subject such as Business or Law.
Veterinary Medicine	Chemistry and Biology. A third science subject is occasionally required.

This list is not exhaustive – many courses not mentioned above will ask for specific subjects, but in such cases the subject requirements are obvious, e.g. to embark on a degree in Geography, 'A' level Geography.

#### 'A' level provision

2019-2020 - The school offered the following subjects at Advanced Level or equivalent level:

(All subjects are offered dependent on uptake justifying viable classes):-

- Agriculture (BTEC Subsidiary Diploma)
- Art and Design
   Biology
- Business Studies
   Chemistry
- Construction (BTEC Subsidiary Diploma)
- Classical Civilisation
   Digital Technology
- Drama and Theatre Studies
- Economics
- Engineering (BTEC Subsidiary Diploma)
- English Literature
- Environmental Technology
   French
  - **Further Mathematics**

Geography

German

- Government and Politics
- Health and Social Care
- History
   Mathematics
- Media Studies
- Music
- Nutrition and Food Science Physics
- Physical Education
- Religious Studies
   Spanish
  - Technology & Design
- Subjects marked in this way may be taken without previous GCSE study.

The above list is reviewed annually.

# GCSE : AGRICULTURE & LAND USE



### Examining Board : CCEA

## WHY STUDY AGRICULTURE & LAND USE?

Studying this course will help you to: appreciate how knowledge of science can enhance productivity in the landbased and agricultural sector; develop your awareness of complex relationships between humans and the environment in which they engage in agricultural activity; acquire core knowledge about the land-based and agricultural sector and the skills needed to work in it.

## **COURSE CONTENT**

#### Unit 1

- Composition of Soils
- Horticulture
- Plant Biology
- Crop Production
- Care and Management of the Countryside
- Renewable energy
- Climate Change
- Careers

#### Unit 2

- Livestock Farming
- Breeding and Reproduction
- Health and Welfare
- Nutrition
- Food Production and Processing
- Farm Economics
- Farm Health and Safety
- Pollution and Farm Waste

#### Unit 3 Practical Investigation:-

- Planning and Risk Assessment
- Data Collection
- Analysis and Conclusion
- Evaluation
- Research Report

External Assessments			Controlled Assessment and Practical skills	
%	Year 11 Summer 2021	Year 12 Summer 2022	%	Tasks
40%	Unit 1 (20%) <ul> <li>Soils</li> <li>Crops</li> <li>Habitats</li> <li>hour 15 mins.</li> </ul>	Unit 2 (20%) <ul> <li>Animals on the Land</li> <li>1 hour 15 mins.</li> </ul>	60%	Students complete 2 Controlled Assessment tasks based on contemporary issues in Agriculture & Land Use:- Practical Investigation Task (20%) Research Project (40%)

## CAREER OPPORTUNITIES

Northern Ireland has a strong rural tradition. Almost 75 percent of land here is used for agricultural purposes. The agri-food industry contributes hugely to the local economy, representing employment for around 50,000 people in farms and factories and the agri-food sector.

FURTHER INFORMATION: ccea.org.uk/qualifications/gcse Dr. G. Pyper

# GCSE : ART & DESIGN

### Examining Board : CCEA

# WHY STUDY ART & DESIGN?

You will explore and develop understanding of:-

- how artists, craftspeople or designers, from a range of periods, societies and cultures approach their work;
- how to communicate meanings, ideas and intentions in your artwork;
- the creative and cultural industries;
- how to develop your ideas through investigating images and artists;
- how to use different media, materials, techniques, processes and technologies to create and refine art and design.

## COURSE CONTENT

#### **Component 1 : Exploratory Portfolio**

Part A : You will experiment in some of the following disciplines and explore two of them – drawing, painting, sculpture, printmaking, textiles, ceramics, graphic design, photography, moving image or animation, digital media, 3D design. You will also learn how to use the formal visual elements of art and design, including: colour; line; shape; form; texture; tone; and pattern.

#### Component 1 : Investigating the Creative and Cultural Industries

Part B : You will learn about the different roles and work practices used in the production of art, craft and design in the creative and cultural industries. This may include practical opportunities, for example workshops, museum visits, gallery visits or collaborating on a project. You will document your research and use drawing to support the development of your work.

#### **Component 2 : Externally Set Assignment**

You will be asked to develop ideas in response to a stimulus paper. You will research the work of others and then complete a final outcome in a timed 10-hour session (over several days) under controlled exam conditions.

External Assessments			Controlled Assessment and Practical skills	
%	Year 11 Summer 2021	Year 12 Summer 2022	%	Tasks
40%	No external assessment in Year 11	Externally set assignment – 40% Stimulus paper which provides a choice of themed starting points.	60%	<ul> <li>Part A : 25% Exploratory Portfolio</li> <li>Part B : 35% Investigating the Creative and Cultural Industries.</li> </ul>

## CAREER OPPORTUNITIES

You may go on to become a practising fashion designer, architect, photographer, sculptor, graphic designer or artist and contribute to the economy as part of the fast-growing creative and cultural industries. Students of Art and Design develop valuable transferable skills, which are sought after by many colleges and universities, employers and industry leaders.

# FURTHER INFORMATION ccea.org.uk/qualifications/gcse

Head of Department: Mrs. R. Reid



# GCSE : BIOLOGY

## Examining Board : CCEA

# WHY STUDY BIOLOGY?

Biology aims to develop a knowledge and understanding of life in all its forms and inter-relationships.

It is a subject which bridges the sciences to the humanities in its investigation of behaviour, environment, health and a range of personal and social issues. It develops confidence in and a positive view of science and encourages an appreciation of the value of biology in our lives and in the wider world.

# **COURSE CONTENT**

#### Unit 1

- Cells
- Photosynthesis and Plants
- Nutrition and Food Tests
- Enzymes and Digestion
- Breathing and Respiratory System
- Nervous System and Hormones
- Ecological Relationships

#### Unit 2

- Osmosis and Plant transport
- Circulatory System
- Reproduction
- Genome and Genetics
- Variation and Natural
- Selection
- Health and Disease

#### Unit 3

- Planning an investigation
- Carrying out an experiment
- Analysing experimental data
- Drawing conclusions

External Assessments		Controlled Assessment and Practical skills	
Year 11 Summer 2021	Year 12 Summer 2022	Practical Skill	5
Unit 1: 35%	Unit 2 : 40%	Unit 3 : Booklet A	7.5%
75 minute external written examination sat in May of Year 11	90 minute external written examination sat in June of Year 12	In Term 2 of Year 12 pupils of practical tasks based on, but to, nine prescribed practical over two years. Externally set and marked.	t not identical
		Unit 3 : Booklet B	17.5%
		60 minute external Practical written examination. (Year	•

## CAREER OPPORTUNITIES

Biology provides a thorough preparation for the study of Biology and related courses at 'A' Level. It also allows you to develop transferable skills that will be of benefit in vocational training and employment. Studying Biology can lead on to a variety of careers including medicine, dentistry, agriculture, ecology, sport and fitness, along with a host of other job opportunities.

FURTHER INFORMATION ccea.org.uk/qualifications/gcse

Head of Department: Dr. G. Pyper



# GCSE : BUSINESS STUDIES



## Examining Board CCEA :

# WHY STUDY BUSINESS STUDIES?

Why do McDonald's make burgers? Subway - sandwiches? Amazon used to be an on-line Bookshop and now is one of the biggest businesses in the world. Its founder, Jeff Bezos, is one of the richest people in the world. He started his business with money borrowed from his parents.

In Business Studies you will learn about how and why businesses exist; the ideas needed and the finance required. You will also learn how businesses design products, advertise and promote them, then grow; how they find their workforce, train and motivate them; how managers lead and inspire. We will study accounts, profit and loss and discover how the rise of the Internet is changing the face of modern business. If any of the ideas above has interested you, then Business Studies is the subject for you.

## **COURSE CONTENT**

#### Unit 1

- Entrepreneurs,
- Business Resources & Ownership
- Public Sector, Social Enterprise
- Business Location , Stakeholders
- Marketing, Market Research
- Price, Product, Promotion, Place
- Competition, Customer Service
- International Business
- E- Business, M-Business
- Types of production
- Methods of Manufacturing
- Quality Assurance
- Health and Safety

#### Unit 2

- Recruitment, Selection
- Appraisal, Training
- Motivation
- Business Success or Failure
- Business Growth
- Internal & External Sources of Finance
- Cash Flow Forecasts, Financial Statements, Income Statement, Statement of Financial Position
- Ratios , Break Even

#### Unit 3

- Business Plan identify and explain reasons
- Planning propose research methods
- Develop action plan
- Carry out research
- Use research
- Evaluate research

Exteri	nal Assessments		Controlled Assessment and Practical skills	
%	Year 11 Summer 2021	Year 12 Summer 2022	%	Tasks
80%	Unit 1 : 40% • Starting a business • Creating a business • Marketing • Business Operations.	<ul> <li>Unit 2 : 40 %</li> <li>Developing a Business</li> <li>Human Resources, Business Growth, Finance.</li> </ul>	20%	Unit 3 Planning a Business – students complete booklets showing planning and communicating findings in a report.

# CAREER OPPORTUNITIES

Studying Business Studies can lead on to a career in accounting, advertising, banking, retail, management consulting, marketing, research, human resources, a small business, or self-employment as an entrepreneur.

FURTHER INFORMATION ccea.org.uk/qualifications/gcse

### Head of Department: Mr. A. McKay

# GCSE : CHEMISTRY

## Examining Board : CCEA

## WHY STUDY?

Chemistry is the study of the matter of which the world is composed whether animal, vegetable or mineral. This course aims to encourage you to: develop your knowledge and understanding of the material world; the effects of chemistry on society; the importance of scale in chemistry; the nature of chemistry and of the scientific process.

# COURSE CONTENT

#### Unit 1

- Atomic Structure
- Bonding; Structures
- Nanoparticles
- Symbols, formulae, equations
- The Periodic Table
- Quantitative Chemistry
- Acids, Bases, Salts
- Chemical Analysis
- Solubility

#### Unit 2

- Metals and Reactivity Series
- Redox, rusting and iron
- Rates of Reaction
- Equilibrium
- Organic Chemistry
- Quantitative Chemistry
- Electrochemistry
- Energy Changes in Chemistry
- Gas Chemistry

#### Unit 3

- Planning an Investigation
- Carrying out an experiment
- Analysing experimental data
- Drawing conclusions
- Prescribed practicals

External Assessments		Controlled Assessment and Practical skills	
Year 11 Summer 2021	Year 12 Summer 2022	Practical Skills	
Unit 1: 35%	Unit 2 : 40%	Unit 3 : Booklet A	7.5%
75 minute external written examination sat in May of Year 11	90 minute external written examination sat in June of Year 12	In Term 2 of Year 12 pupils ca practical tasks based on, but to, nine prescribed practicals over two years. Externally set and marked.	not identical
		Unit 3 : Booklet B	17.5%
		60 minute external Practical switten examination. (Year 1	•

## CAREER OPPORTUNITIES

A variety of careers are available if you study Chemistry e.g. Medicine, Dentistry, Veterinary, Pharmacy, Pharmacology, Biochemistry, Environmental Chemistry, Chemical Engineering, Material Science, Forensics, Metallurgy etc. Chemistry is helping us to cope with increasing pressures on energy, food, water and other natural resources. Chemistry is helping to improve and maintain human health through the development of new and improved pharmaceutical drugs and drug delivery systems.

FURTHER INFORMATION ccea.org.uk/qualifications/gcse

### Head of Department: Mr. M. Christie

# **GCSE : CLASSICAL CIVILISATION**



## Examining Board : OCR

## WHY STUDY CLASSICAL CIVILISATION?

- This is a new subject that gives you the opportunity to study the History, Archaeology, Literature and Culture of Ancient Greece and Rome.
- This course is suitable for all students and does not require any previous knowledge of this fascinating period.

It might be because you watched 'Gladiator' or '300' and want to learn more. Perhaps you want to study history, philosophy, literature, language, archaeology, politics and art all in one course. You may have had your imagination captured by something you have read in books or seen on TV, or maybe you have seen Greek or Roman ruins on your foreign travels

## COURSE CONTENT

#### Unit 1 : Myth and Religion

- This looks at the role of the **gods and heroes** in the founding of Athens and Rome and the importance of **Hercules.**
- Myth as a symbol of power will also be explored, as
   will ever-popular myths about the underworld.
- Pupils will also investigate the role of religion in the everyday lives of ancient Greeks and Romans. The study of temples, sacrifice, festivals, death and beliefs in the afterlife will give a broad overview of religion in the ancient world.
- Religion will be compared and contrasted in each society.

#### Unit 2 : Roman City Life

- In this component learners will explore everyday life in Roman cities, with a particular focus on **Rome** and **Pompeii.**
- This component comprises a study of a variety of aspects of **Roman society.**
- Examining the archaeology of these to build a picture of Roman family, education and entertainment with gladiators and chariot races.
- The literature in this topic examines poetry and prose, fiction and non-fiction texts to provide learners with an introduction to a variety of literature.

External Assessments		Controlled Assessment and Practical skills		
%	Year 11 Summer 2021	Year 12 Summer 2022	%	Tasks
100%	No external assessment in Year 11	Unit 1: 50% Myth and Religion Unit 2: 50% Roman City Life	Nil	There is no Controlled Assessment in this subject

## CAREER OPPORTUNITIES

Some people will work in the field of Classical Civilisation in teaching, higher education, archaeology or museums. Generally, they follow the same career path as other Humanities graduates ranging from law, teaching, media and journalism to jobs in the financial sector such as management accountancy.

# FURTHER INFORMATION:

Head of Department: Mr. P. Scullion

ocr.org.uk/qualifications/gcse/

# **GCSE : CONSTRUCTION**

### Examining Board : CCEA

## WHY STUDY CONSTRUCTION?

You will develop an understanding of construction and the built environment, the importance of health and safety in the construction industry, and the employment opportunities in the industry. You will learn about the construction industry, related employment and techniques used in the built environment. You will also develop a working knowledge of Computer Aided Design (CAD), which is used throughout the construction industry. Students choosing this subject will complete a woodwork project such as the manufacture of a coffee table or clock.

## **COURSE CONTENT**

#### Unit 1

- Introduction to the Built Environment
- Employment in the Construction Industry
- Resource considerations
- Health and Safety

- Unit 2
- Technical construction methods
- Sketching Skills
- Interpreting drawing
- Sustainable construction
- Renewable Energy
- Construction technology

#### **Unit 3 Craft project**

 You will complete a craft project made from wood

#### **Unit 4 Introduction to CAD**

 Design your own home using Computer Aided Design software

External Assessments			Controlled Assessment and Practical skills	
%	Year 11 Summer 2021	Year 12 Summer 2022	%	Tasks
50%	There is no external assessment in Year 11	Unit 1: 20% • Introduction to the Built Environment Unit 2 : 30% • Sustainable Construction	50%	<ul> <li>Unit 3 : 25%</li> <li>The Construction Craft Project</li> <li>Unit 4: 25%</li> <li>Computer Aided Design</li> </ul>

## CAREER OPPORTUNITIES

This subject is useful if you are considering a career in Architecture, Civil Engineering, Building Control, Architectural Technology, Computer Aided Design, Estate Management, Construction Management, Quantity Surveying or Building Services. There are also career prospects in construction crafts such as Joinery, Brickwork, Plastering, Plumbing or Electrical Installation.

With a career in construction, you'll be part of a global industry that offers lots of exciting and rewarding jobs. Around three million people work in construction in the UK, making it one of the nation's biggest and most diverse industries.

FURTHER INFORMATION: ccea.org.uk/qualifications/gcse Head of Subject: Mr. T. Heaney



# GCSE : DIGITAL TECHNOLOGY



### Examining Board : CCEA

# WHY STUDY DIGITAL TECHNOLOGY?

It's a good time to be working in IT and computing. Research by e-skills UK shows that the sector is one of the fastest-moving and most dynamic in the UK – currently employing 1 in 20 of us. It's estimated that over half a million new entrants will be needed to fill jobs in this sector over the next five years.

In GCSE Digital Technology, there may an opportunity to follow one of two pathways: Route A, Multimedia, or Route B, Programming. The Route B: Programming Option is a challenging, but exciting course, therefore, students need to demonstrate proven interest in and aptitude for the course. This will be determined on the basis of evidence of, e.g. mathematical ability, attainment in programming components of the K.S.3 Digital Technology course.

## COURSE CONTENT

- Digital Data
- Representing data, images, sound
- Software, hardware
- Database applications
- Spreadsheet applications
- Network technologies
- Cyberspace, network security and data transfer
- Cloud technology
- Ethical, legal and environmental impacts
- Digital applications

- Designing solutions
  - Digital development considerations
- Multimedia applications
- Multimedia authoring
- Database development
- Testing and Evaluation
- OR

#### Unit 4 – Digital Development Concepts (Programming)

- Contemporary trends in software development
- Digital data
- Digital design principles
- Programming constructs
- Simple error handling techniques
- Testing and Evaluation

# OR

Unit 5 – Digital Development Practice (Programming)

- Designing solutions
- Building a solution
- Testing a solution
- Evaluating a solution

				Controlled Assessment and Practical skills			
	Year 11	Year 12					
%	Summer 2021	Summer 2022	% Tasks				
70%	Unit 1: 30%	Unit 2: 40%	30% Unit 3				
	Core Theory	Digital Authoring Theory	Digital Authoring – Website and Database				
		OR		OR			
		Unit 4: 40%	Unit 5				
		Digital Development		Digital Development – Programming Solution			

## CAREER OPPORTUNITIES

There are opportunities for IT and computing graduates across all industries, including retail, financial services, telecommunications, broadcast media, digital media, manufacturing, transport, tourism, the public sector and healthcare – with strong growth and demand in cyber security, artificial intelligence, mobile development, cloud computing and the management of big data.

# FURTHER INFORMATION: ccea.org.uk/qualifications/gcse

Head of Department: Mrs. B. Smyth

# GCSE : DRAMA



# Examining Board : CCEA

# WHY STUDY DRAMA?

In studying this course you will have the opportunity to work imaginatively and creatively with others, developing a range of practical and performance skills. You will also learn how plays are constructed.

# COURSE CONTENT

#### **Unit 1 Devised Performance**

In response to pre-release stimulus material you **either** devise and present a group performance **or** devise and give a design presentation.

Design students must choose one of the following disciplines: costume, lighting, multimedia (use of image, sound, text and/or video), set or sound.

For both performance and design pathways you must maintain and complete a learning log.

#### Unit 2 – Scripted Perfomance

You choose **either** a performance **or** a design pathway. Students research and prepare a performance of their script. Those choosing the performance pathway are assessed on acting. Those choosing the design pathway are assessed on a presentation on their chosen design discipline.

Design students must choose one of the following disciplines: costume, lighting, multimedia (use of image, sound, text and/or video), set or sound.

#### Unit 3 – Knowledge and Understanding of Drama

You will study a set text. As well as developing understanding of the text and elements such as the playwright's use of language, style and genre, you consider contexts and aspects of performance, production and design.

External Assessments			Controlled Assessment and Practical skills	
%	Year 11 Summer 2021	Year 12 Summer 2022	%	Tasks
40%	No external assessment in Year 11	Unit 3 : 40% Knowledge and Understanding of Drama	60%	Unit 1 : 25% Devised Performance Unit 2 : 35% Scripted Performance

# CAREER OPPORTUNITIES

This course gives you the opportunity to explore a range of practical, creative, analytical and performance skills. The majority of careers and further study pathways increasingly require the range of skills developed through the qualification: presentation, collaboration, confidence, evaluation and innovation. Studying GCSE Drama can lead to further study in the performing arts, a career in acting or design, or a wide variety of other careers that use the skills described above. The creative arts is a healthy and growing sector in Northern Ireland and GCSE Drama is a very relevant qualification.

FURTHER INFORMATION: ccea.org.uk/qualifications/gcse Head of Department: Mrs. L. Nelson

# GCSE : ENGLISH LANGUAGE



### Examining Board : CCEA

## WHY STUDY ENGLISH LANGUAGE?

Studying English Language develops your communication skills, teaches you how to present with confidence and improves your writing skills. You will have the opportunity to read and explore a wide range of texts. This will help you to form independent views and learn how to challenge and argue your point of view.

# COURSE CONTENT

**Unit 1: Writing for Purpose and Audience and Reading to Access Non-Fiction and Media Texts** You will engage with reading and writing tasks based on texts.

Unit 2: Speaking and Listening

You will complete an individual presentation and interaction, a discussion and a role play.

Unit 3: Studying Spoken and Written Language

You will study the impact of spoken language and demonstrate knowledge of characters, themes and genres in literary texts.

#### Unite 4: Personal or Creative Writing and Reading Literary and Non-Fiction Texts

You will engage with writing and reading tasks based on non-fiction texts.

External Assessments			Controlled Assessment and Practical skills	
%	Year 11 Summer 2021	Year 12 Summer 2022	%	Tasks
60%	There is no external assessment in Year 11	Unit 1: 30% Writing for Purpose and Audience and Reading to Access Non-fiction and Media Texts. Unit 4: 30% Personal or Creative Writing and Reading Literary and Non-fiction texts.	40%	Unit 2: 20% Speaking and Listening Unit 3: 20% Studying Spoken and Written Language

## CAREER OPPORTUNITIES

The use of the English Language is beneficial to all career paths, giving you skills that can be used in many different real life situations. Studying English Language can lead to further study or a career in the media, such as journalist, editor or writer. Advertising and marketing are also options, with roles such as copywriter, public relations officer or researcher. With further study you could also consider a career in teaching or law.

FURTHER INFORMATION: ccea.org.uk/qualifications/gcse Head of Department: Mrs. R. Coulter

# GCSE : ENGLISH LITERATURE



### Examining Board : CCEA

## WHY STUDY ENGLISH LITERATURE?

English Literature enhances your ability to be critical and analytical. It opens up your mind and imagination, helping you to think independently and creatively, all of which are highly valued transferable skills that are essential in many different career paths.

The course will develop your ability to write accurately and express yourself clearly. You will learn to research, plan and prepare your responses using your own ideas and interests. You will discover how to be creative when explaining themes, characters, settings and their influences through social, cultural and historical situations.

If you enjoy exploring topical issues and ideas, analysing characters and thinking creatively, then this course is ideal for you.

## **COURSE CONTENT**

#### Unit 1 – the Study of Prose

You will study one twentieth century novel and learn how to analyse characters and themes. You will also study a selection of extracts from nineteenth-century novels and learn how to explain how the author uses narrative techniquies to present ideas.

#### Unit 2 – The Study of Drama and Poetry

You will study '*Blood Brothers*', a musical by Willy Russell, analysing how characters and themes are presented. You will also study a collection of poetry on the theme of conflict written by a variety of poets.

#### Unit 3

You will study a Shakespeare play and relate it to its social, cultural and historical contexts. You will then complete an extended writing task based on a theme.

External Assessments		Controlled Assessment and Practical skills		
%	Year 11 Summer 2021	Year 12 Summer 2022	%	Tasks
80%	Unit 1: 30% The Study of Prose	Unit 2: 50% The Study of Drama and Poetry	20%	Unit 3: The Study of Shakespeare

## CAREER OPPORTUNITIES

This specification allows you to develop your communication skills, as well as your ability to research, understand and respond to ideas imaginatively. These are skills you will need in nearly all types of employment.

The highly lucrative media industry, including print, online, TV and radio, is an area that the study of English Literature can lead to. A job in advertising, public relations or the press is also an option with a qualification in English Literature. With further study, teaching is another profession open to you, or you could work for an arts organisation. Many students of English Literature go on to study law, business, social work, politics and even medicine.

## FURTHER INFORMATION: ccea.org.uk/qualifications/gcse

Head of Department: Mrs. J. Craig

# **GCSE : FOOD AND NUTRITION**



### Examining Board : CCEA

# WHY STUDY FOOD AND NUTRITION?

The GCSE Food and Nutrition course gives you opportunities to learn about the science behind food – the nutritional content of foods, current nutritional guidelines and catering for the differing dietary needs of the people in today's society. You will also learn about the current government nutritional guidelines and you will be expected to plan, prepare and cook meals and dishes in accordance with these guidelines. You will consider food choice, food safety and managing resources.

You will gain knowledge and understanding of: the food we consume – where it comes from and how it is produced, the foods we should eat to maintain good health; prominent health issues in today's society; how to shop effectively; why people choose certain foods, and affordability when it comes to food and food choice.

**Unit 2: Practical Food and Nutrition** 

- justify a choice of dishes;

- carry out your practical, and

- evaluate all parts of the task.

materials and adhere to word counts.

plan your practical;

You will research a given task title, you will then:

You will complete the written report according to the guidance

You will also develop practical food preparation, cooking and presentation skills.

## **COURSE CONTENT**

#### **Unit 1: Food and Nutrition**

You will study:

- food provenance;
- food processing and production;
- food and nutrition for good health;
- energy and nutrients;
- macronutrients;
- micronutrients;
- fibre;
- water;
- nutritional and dietary needs;
- priority health issues;

#### - being an effective consumer when shopping for food;

- factors affecting food choice;
- food safety;
- resource management, and
- food preparation, cooking and presentation skills.

External Assessments			Controlled Assessment and Practical skills	
	Year 11	Year 12		
%	Summer 2021	Summer 2022	%	Tasks
50%	There is no external assessment in Year 11	Unit 1: Food and Nutrition	50%	Unit 2: The task is set by the Exam Board and involves research and viewpoints, justification of choice, planning practical activity and evaluation. Students present a written report on the task in the required format.

## CAREER OPPORTUNITIES

The course helps to prepare young people for adult life and independent living and also provides an excellent foundation for young people who wish to work in food-related industries and/or undertake further study in this area, for example progressing to our GCE Nutrition and Food Science or other related courses.

FURTHER INFORMATION: ccea.org.uk/qualifications/gcse

### Head of Department: Mrs. G. Douglas

# GCSE : FRENCH



## Examining Board : CCEA

## WHY STUDY FRENCH?

Studying French develops your language skills and knowledge by raising your awareness and widening your understanding of French speaking countries/communities. You will have the opportunity to use practical French and take your place as a citizen in a multilingual, global society.

French is spoken in five continents and is the official language in 30 countries. French is the working language of international organisations, including the UN, the European Union, UNESCO, NATO, the International Olympic Committee, the International Courts, the International Red Cross. Moreover this is the working language of culture – art, cuisine, dance, fashion and the largest donor of vocabulary to the English language – 50% of English vocabulary derives from French.

# **COURSE CONTENT**

Through studying French for GCSE, pupils have the opportunity to:

- develop their understanding of the French language .
- develop their ability to communicate effectively in spoken and written French
- develop their knowledge of French culture
- develop their awareness and understanding of French-speaking countries and communities
- acquire the foundation for further study of French to AS and/or A2

You will study a range of topics in three contexts for learning:-

- Identity, Lifestyle and Culture
- Local, National, International and Global Areas of Interest .
- School Life, Studies and the World of Work

The four skills of Reading, Listening, Speaking and Writing will be assessed.

In preparing for the CCEA specification, pupils will learn to communicate effectively in spoken and written French and will work on reading and listening stimulus material on the following topics:-

- Relationships Families and Friends
- Health and lifestyle ٠
- Social and global issues
- Local environment
- Travel and tourism
- ٠
- Daily routine and free time and leisure activities

Community involvement

- **Environmental issues** Social Media and new technology
- French culture, celebrations, festivals and customs
- School life
- Studies and co-curricular activities
- Part-time jobs, future plans and career choices

External Assessments			Controlled Assessment and Practical skills			
%	Year 11 Summer 2021	Year 12 Summer 2022	%	Tasks		
100%	There is no external assessment in Year 11	Unit 1: 25% Listening Unit 2: 25% Speaking Unit 3: 25% Reading Unit 4: 25% Writing	Nil	There is no Controlled Assessment in this subject		

# CAREER OPPORTUNITIES

Studying French can lead to further study or a career, for example in tourism, broadcasting, marketing, enterprise, business or teaching. There may also be opportunities for study abroad or other international programmes. By studying French pupils will acquire attractive and highly sought after linguistic skills for life and the work place and develop a wide range of communication skills attractive to university admissions.

**FURTHER INFORMATION:** ccea.org.uk/qualifications/gcse

## Head of Department: Miss R. McVea

# GCSE : GEOGRAPHY



### Examining Board : CCEA

## WHY STUDY GEOGRAPHY?

Geography is all around us. It examines topics which are varied, current, relevant and at the leading edge of technology. By studying the physical environment, human activities and the interaction of the two, Geography helps us make sense of the world in which we live and encourages us to explore it for ourselves. Geographical knowledge alongside the transferable skills which study of the subject develops, ensures that employers value geographers. In combination with other subjects up to A-Level, Geography can lead to a degree programme in a variety of areas and, in turn, a wide range of careers. In short, Geography is a vital subject in the 21<sup>st</sup> century.

## **COURSE CONTENT**

#### Unit 1: Understanding Our Natural World

<u>River Environments</u> – a river drainage basin; river features, the processes leading to their formation; river flooding and river management strategies.

<u>Coastal Environments</u> – coastal features, the processes leading to their formation; the need for coastal defences and coastal management strategies.

<u>Our Changing Weather and Climate</u> – measuring the elements of the weather; the weather of the British Isles including depressions and anticyclones; the impacts of extreme weather.

<u>The Restless Earth</u> – basic rock types; plate tectonics theory; the causes and impacts of earthquakes and management responses; the characteristics of volcanoes and the consequences of a supervolcano eruption.

#### Unit 2: Living In Our World

<u>Population and Migration</u> – changing birth and death rates; population structure of More and Less Economically Developed Countries; causes of migration and the challenges posed by the movement of refugees.

Changing Urban Areas – land use zones in cities; issues experienced in inner cities and regeneration initiatives; shanty towns.

<u>Contrasts in World Development</u> – differences in development between More and Less Economically Developed Countries; factors contributing to unequal development; solutions to deal with unequal development including the Sustainable Development Goals, appropriate technology and fair trade; globalisation.

<u>Managing Our Environment</u> – causes and impacts of climate change; renewable energy solutions; the International Climate Change Agreement; the impacts of mass tourism and the role of ecotourism in protecting the environment.

#### Unit 3: Fieldwork

Pupils will plan and carry out fieldwork needed to investigate a particular geographical issue.

External Assessments			Controlled Assessment and Practical skills	
%	Year 11 Summer 2021	Year 12 Summer 2022	%	Tasks
100%	Unit 1: 40% Understanding Our Natural World	Unit 2: 40% Living in Our World Unit 3: 20% Fieldwork	Nil	There is no Controlled Assessment in this subject

## CAREER OPPORTUNITIES

This qualification will help you gain valuable transferable skills. Studying Geography can lead to a wide range of careers such as urban planning, cartography, GIS applications, climatology, hydrography, environmental management, weather forecasting, research, journalism, landscape architecture, surveying, aerial photography and teaching.

FURTHER INFORMATION: ccea.org.uk/qualifications/gcse

### Head of Department: Miss G. Allen

# GCSE : GERMAN



## Examining Board : CCEA

## WHY STUDY GERMAN?

Studying German is extremely rewarding. It provides an insight into the culture of German speaking countries and can open the door to travel and employment opportunities. As an English speaker you are already at an advantage, since German and English share the same Germanic root. You could gain a deeper insight to a region that has a rich and cultural history.

German is the most widely used mother tongue in Europe and Germany has the largest economy in Europe. It is also the UK's largest export market in the European Union. You will want to make sure that you are equipped with the right skills for a changing workplace in the future. As we negotiate our place in Europe, it may be even more important than ever to be able to communicate effectively with our European neighbours.

## COURSE CONTENT

Through studying German for GCSE, pupils have the opportunity to:

- develop their understanding of the German language
- develop their ability to communicate effectively in spoken and written German
- devleop their knowledge of German culture
- develop their awareness and understanding of German-speaking countries and communities
- acquire the foundation for further study of German to AS and/or A2

You will study a range of topics in three contexts for learning:-

- Identity, Lifestyle and Culture
- Local, National, International and Global Areas of Interest
- School Life, Studies and the World of Work

The four skills of Reading, Listening, Speaking and Writing will be assessed. In preparing for the CCEA specification, pupils will learn to communicate effectively in spoken and written German and to reading and listening stimulus material on the following topics:-

- Relationships Families and Friends
- Health and lifestyle
- Social and global issues
  Travel and tourism
- Local environmentCommunity involvement
- Environmental issues
- Daily routine and free time and leisure activities
- Social Media and new technology
- German culture, celebrations, festivals and customs
- School life
- Studies and co-curricular activities
- Part-time jobs, future plans and career choices

External Assessments			Controlled Assessment and Practical skills	
%	Year 11 Summer 2021	Year 12 Summer 2022	%	Tasks
100%	There is no external assessment in Year 11	Unit 1: 25% Listening Unit 2: 25% Speaking Unit 3: 25% Reading Unit 4: 25% Writing	Nil	There is no Controlled Assessment in this subject

## CAREER OPPORTUNITIES

Studying German can lead to further study or a career, for example in tourism, broadcasting, marketing, enterprise, business or teaching. There may also be opportunities for study abroad or other international programmes. By studying German pupils will acquire attractive and highly sought after linguistic skills for life and the work place and develop a wide range of communication skills attractive to University admissions.

FURTHER INFORMATION: <u>ccea.org.uk/qualifications/gcse</u>

## Head of Department: Mrs. K. McCann

# GCSE : HISTORY

## Examining Board : CCEA

## WHY STUDY HISTORY?

There are many reasons why History is an excellent subject to study. The following are just a few of them:-

- You will learn about key individuals and the impact of their actions and decisions.
- You will investigate big questions, such as
  - Why did so few people try to stop Hitler?
  - What role did Northern Ireland play during World War II?
  - Why did the Cuban Missile Crisis bring the world to the brink of nuclear war?
  - What was the significance of 9/11 for international relations?
- You will appreciate that there is not simply one version of the past but many different and often competing interpretations.
- You will develop skills of working with evidence from the past to construct arguments and make informed judgements.

## **COURSE CONTENT**

#### Unit 1: Modern World Studies in depth + local study

**Life in Nazi Germany 1933-1945** – How Hitler takes control of political opponents, how the lives of women, young people and workers in Germany were affected by Hitler's politics. How Germany was affected by war including the impact of air raids, rationing and the escalation of racial persecution which resulted in ghettos and eventually the final solution.

**Northern Ireland and its Neighbours, 1920-1949** – This part of the course examines the tense relationship between Britain, Northern Ireland and Eire before and during World War Two. The Luftwaffe raids and their impact on the lives of the people in Northern Ireland. We examine the significant contribution Northern Ireland made to the war effort in terms of agriculture but also industrially through companies such as Harland and Wolff and Short and Harland.

#### Unit 2: Outline Story

**International Relations 1945-2003** – Here we deal with the clashes between Russia and America. Pupils will look at a wide range of flashpoints including the wars in Korea and Vietnam, the rise and fall of the Berlin Wall and the Cuban Missile Crisis. Pupils will then move on to examine the "War on Terror" by looking at the rise of the Taliban, the growth of Al Qaeda and the September 11<sup>th</sup> attacks on the World Trade Centre. The war in Afghanistan, the invasion of Iraq and the downfall of Saddam Hussein are all key areas of focus.

External Assessments		Controlled Assessment and Practical skills		
%	Year 11 Summer 2021	Year 12 Summer 2022	%	Tasks
100%	Unit 1: 60% Modern World in depth – Life in Nazi Germany 1933-45 and local Study – Changing relations: Northern Ireland and its Neighbours.	Unit 2: 40% Outline Study – International Relations 1945 – 3003	Nil	There is no Controlled Assessment in this subject

### CAREER OPPORTUNITIES

Studying History can lead to a diverse range of further study opportunities and careers. While many of these are not directly related to the content you learn in History, it is the skills you develop when you are 'thinking like a historian' that make History a well-respected and attractive subject to universities and employers. Law, politics, civil service, business, marketing, finance, accountancy, journalism, economics, teaching, academia, insurance, social research, crime investigation, social work, archaeology and heritage offer a snapshot of the many career avenues that studying History can lead you down.

# FURTHER INFORMATION: ccea.org.uk/qualifications/gcse

### Head of Department: Mrs. S. Shaw

# **GCSE : MATHEMATICS**

Examining Board : CCEA

# WHY STUDY MATHEMATICS?

This course aims to encourage you to:

- develop fluent knowledge, skills and understanding of mathematical methods and concepts;
- acquire, select and apply mathematical techniques to solve problems;
- reason mathematically, make deductions and inferences and draw conclusions; and
- comprehend, interpret and communicate mathematical information in a variety of forms appropriate to the information and context.

## **COURSE CONTENT**

This specification has two tiers: Foundation and Higher. Each tier offers you a choice of units suited to a wide range of abilities and enables you to demonstrate achievement.

You will study:

- Number and Algebra
- Geometry and Measures
- Statistics and Probability

Functional mathematics is embedded in the course, which provides opportunities for pupils to develop and apply mathematical skills to real-life contexts.

Pupils are allocated to G.C.S.E. classes according to mathematical ability which is assessed through class work, homework, tests and examinations. Pupils will be entered for modules which suit their ability and enable them to demonstrate achievements. Pupils' progress will be monitored throughout the course and, to ensure that the needs of every pupil are met, a reallocation of Mathematics classes will take place at the end of Year 11 based on modular results.

External Assessments		Controlled Assessment and Practical Skills		
%	Year 11 Summer 2021	Year 12 Summer 2022	%	Tasks
100%	Unit worth 45% One paper	Unit worth 55% Two papers [** Some pupils will take a Unit in January of 2021]	Nil	There is no Controlled Assessment in this subject

## **CAREER OPPORTUNITIES**

Just about everything! People with mathematics degrees and other qualifications can go into: accounting, medicine, engineering, forensic pathology, finance, business, consultancy, teaching, IT, games development, scientific research, programming, the civil service, design, construction, astrophysics and many other careers.

FURTHER INFORMATION ccea.org.uk/qualifications/gcse Head of Department: Mr. J. Donnelly



# **GCSE : FURTHER MATHEMATICS**

Examining Board : CCEA

# WHY STUDY FURTHER MATHEMATICS?

G.C.S.E. Further Mathematics, as the name suggests, is a study of the subject at a level higher than G.C.S.E. Mathematics. The course has sections on Pure Mathematics, Mechanics and Statistics and provides the opportunity for pupils to study those aspects of Mathematics which are not included in the compulsory G.C.S.E. Mathematics course but which form the framework for Mathematics at 'AS' level.

You should study Further Mathematics if you require knowledge of mathematics beyond G.C.S.E. Mathematics (Higher Tier) and you are capable of working beyond the limits of the G.C.S.E. Mathematics specification. It will broaden your mathematical knowledge and skills to a more advanced level.

Any pupil considering 'AS' or 'A' level Mathematics would benefit from studying G.C.S.E. Further Mathematics. A keen interest in Mathematics is also recommended.

## **COURSE CONTENT**

#### **Unit 1 : Pure Mathematics**

Unit 2 : Mechanics

- Algebra
- Trigonometry
- Differentiation
- Integration
- Logarithms
- Matrices
- Quadratic inequalities

- Kinematics
- Vectors
- Forces
- Moments
- Newton's Laws of Motion

#### Unit 3 : Statistics

- Statistical Terminology
- Measures of Central Tendency and Dispersion
- Binomial and Normal Distributions
- Probability
- Bivariate Analysis

External Assessments		Contro	Controlled Assessment and Practical Skills	
%	Year 11 Summer 2021	Year 12 Summer 2022	%	Tasks
100%	Unit 1 : 50% Pure Mathematics	Unit 2 : 25% Mechanics Unit 3 : 25% Statistics	Nil	There is no Controlled Assessment in this subject

## CAREER OPPORTUNITIES

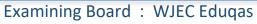
Mathematics is becoming increasingly important in both employment and higher education. Studying G.C.S.E. Further Mathematics helps you to build the knowledge and skills to progress to GCE Mathematics and GCE Further Mathematics. It also helps provide progression to other post-16 subjects such as STEM, Computing, Geography or Business Studies.

# FURTHER INFORMATION ccea.org.uk/qualifications/gcse

Head of Department: Mr. J. Donnelly



# **GCSE : MEDIA STUDIES**



# WHY STUDY MEDIA STUDIES?

The media play a central role in contemporary society and culture. They shape our perceptions of the world through the representations, viewpoints and messages they offer. The media have real relevance and importance in our lives today, providing us with ways to communicate, with forms of cultural expression and the ability to participate in key aspects of society. The economic importance of the media is also unquestionable.

This course offers learners the opportunity to develop knowledge and understanding of these key issues and the ability to debate important questions about the media. It introduces them to a theoretical framework for analysing the media, which also underpins study of the media at 'AS' and 'A' Level.

**Unit 2 : Understanding Media Forms** 

### **COURSE CONTENT**

### Unit 1 : Exploring the Media

Section A

Media Language and Representation

- Print advertisement
- Film posters
- Magazine front covers
- Newspaper front pages

Section B

Section A

•

• Music Video and online Media

**Television : Crime Drama** 

• Create a media product for an intended audience

**Unit 3 : Creating Media Products** 

 Apply knowledge and understanding of media language and representations in order to communicate meaning

**Controlled Assessment and Practical Skills** 

#### Section B

Exploring Media Audiences and Industries

- Film
- Newspapers
- Radio
- Video Games

#### External Assessments

%	Year 11	Year 12	%	Tasks
	Summer 2021	Summer 2022		
70%	There is no external	Unit 1: 40%	30%	Unit 3
	assessment in	Exploring the Media		Creating Media Products
	Year 11	Unit 2: 30%		
		Understanding Media Forms		

## **CAREER OPPORTUNITIES**

The media industries employ large numbers of people worldwide and operate as commercial industries on a global scale. The global nature of the contemporary media, coupled with ongoing technological developments and more opportunities to interact with the media, suggest that their centrality in contemporary life can only increase.

## FURTHER INFORMATION

Head of Department: Mrs. R. Coulter

eduqas.co.uk/qualifications/media-studies/gcse/

**N** 

# GCSE : MUSIC

## Examining Board : CCEA

## WHY STUDY MUSIC?

Music is a Creative and Expressive subject and, apart from the enjoyment of studying music in its own right, it complements and enhances the study of Arts and Sciences. Skills such as 'problem solving' from a creative perspective are highly valued by universities and employers and numerous studies show Music benefits all-round academic achievement.

Skills acquired in communication, performance and presentation (including Music technology) build confidence and key interpersonal skills, and are easily transferable and complementary to other subject areas; indeed, many former pupils regard them as essential life-skills. A good pass at Grade 3 level, or above, in Practical and Theory Exams of the Associated Board, Trinity College or Rock School is desirable. It is helpful to note that Grade 3 is sufficient for the GCSE performance exam in Year 12.

## **COURSE CONTENT**

### Unit 1 : Performing and Appraising

You will complete **one** solo and **one** ensemble performance and you will discuss your performance with the visiting examiner.

#### Unit 2 : Composing

You will create **two original** compositions – one in response to a pre-release stimulus and one free choice.

#### **Unit 3 : Listening and Appraising**

You will study four compulsory Areas of Study:-

- Western Classical Music 1600-1910
- Film Music
- Musical Traditions of Ireland
- Popular Music 1980 present day

Within each area you will study set works. You will develop your understanding of the relationship between music and its contexts and you will listen to and appraise familiar and unfamiliar music by a range of composers.

External Assessments		Controlled Assessment and Practical Skills		
%	Year 11 Summer 2021	Year 12 Summer 2022	%	Tasks
70%	No external assessment in Year 11	Unit 1: 35% Performing and Appraising Unit 3: 35% Listening and Appraising	30%	Unit 2: Composing Pupils create two compositions - one in response to pre-release stimulus and one free choice.

### CAREER OPPORTUNITIES

In recent years, Northern Ireland and the U.K. have seen revenue, new careers and employment opportunities in the creative sector outstrip other industries. It is forecast that there will be a 29% increase in job creation in this sector. The Northern Ireland Assembly has produced a strategy for growth of the Music and Film industries, aware that this is a key area of opportunity and expansion.

Music is closely related to the fields of acoustics, electronics and creative digital technologies so many pupils combine Music at 'A' Level with Maths and Physics with the hope of entering these fields at university level.

Music is now favoured by many universities as a highly regarded contrasting subject to sciences, and evidence of high level personal discipline, skill and life enrichment. It has been advantageous to many of our pupils gaining places in degrees such as Medicine and Dentistry, amongst others. Others have gone on to study Law, Acoustic Design, Sound and Music Technology and Engineering, Pure Music, Performance, Teaching, Physiotherapy, Civil Engineering and a host of other diverse courses. Primary School teachers have always been advantaged by Musical Study.



# **OCCUPATIONAL STUDIES IN TECHNOLOGY & INNOVATION**



(Level 2 qualification, equivalent to a GCSE in the National Qualifications Framework)

### Examining Board : CCEA

## WHY STUDY OCCUPATIONAL STUDIES?

Occupational Studies is intended to provide a coherent and flexible programme of study, which is rooted in a practical and occupational context.

- Assessment focuses on work-related tasks.
- Suited to learners who are better at developing their skills in a more practical, occupationally orientated environment.
- Prepares learners to make informed decisions about progression opportunities and career choices.
- Develops an awareness of health and safety in the work place and an appreciation of environmental impacts.
- Allows learners to reflect on their learning.

## **COURSE CONTENT**

#### Unit 1 Computer Aided Design

This unit introduces pupils to basic skills in the use of an industry standard Computer Aided Design (AutoCAD) Pupils will also have the option of creating drawings in the disciplines of:

• engineering (manufacturing) or

• construction (architecture or interior design)

#### Unit 2 Craft Manufacturing

This unit introduces pupils to processes using wood and the use of hand tools.

Pupils will also have the option to craft a table, clock or similar project from wood.

Pupils will develop skills in reading drawings, marking out and cutting joints.

Externally Moderated Assessments (No external exam)	
Year 11 (50%) Summer 2021	Year 12 (50%) Summer 2022
Unit 1 60% practical / 40% knowledge	Unit 2 60% practical / 40% knowledge

Along with Occupational Studies pupils will have an opportunity to devote a period to Study Skills.

# CAREER OPPORTUNITIES

Pupils will develop a clear understanding of the career opportunities available in each vocational area, also health and safety and environmental issues will be considered.

FURTHER INFORMATION:Head of Subject:Mr. T. Heaneyhttps://www.rewardinglearning.org.uk/microsites/Occupational Studies/

# **GCSE : PHYSICAL EDUCATION**

Examining Board : CCEA

# WHY STUDY PHYSICAL EDUCATION?

Taking part in physical activities or sports helps achieve and maintain a healthy body and lifestyle.

GCSE Physical Education gives you the opportunity to learn about how your body works, how to plan and lead a healthier lifestyle, and the factors that can affect your health. You will perform in three physical activities or sports.

### **COURSE CONTENT**

#### Unit 1 : Factors Underpinning Health and Performance

You will study how your body systems work, how to maintain good health and how lifestyle decision can affect health. You will also study the active leisure industry.

#### **Unit 2 : Developing Performance**

You will study physical fitness and its importance for health and for efficient and effective performances in your physical activities and sports. You will learn how to plan effective training programmes to develop physical fitness.

#### Unit 3 : Individual Performances in Physical Activities and Sport

You must perform three physical activities or sports.

In order to show that you will be able to meet this requirement, pupils must:

- Represent the school in at least one sport, preferably at 'A' team standard, and be competent in at least one other, either within school or a club outside school.
- Meet a minimum level of performance in 3 activities, including fitness assessed through P.E. and Games lessons.
- Have a good participation record in P.E. classes and Games lessons from Years 8-10.
- Meet with the Head of P.E., prior to subject selection, to discuss suitability for this course.

External Assessments			Controlled Assessment and Practical Skills		
%	Year 11 Summer 2021	Year 12 Summer 2022	%	Tasks	
50%	No external assessment in Year 11	Unit 1: 25% Factors Underpinning Health and Performance Unit 2: 25% Developing Performance	50%	Unit 3 Individual Performances in Physical Activities and Sports	

## **CAREER OPPORTUNITIES**

Studying Physical Education can lead to careers in leisure or recreation management, sports management, podiatry, physiotherapy, dietetics, sports coaching, professional sports, gym instruction, fitness instruction, personal training, lifeguarding, P.E. teacher, sports consultant, sports policy adviser, sports development officer, sports agent, sports journalism, sports marketing, events management, sports scientist, sports psychologist.

## FURTHER INFORMATION ccea.org.uk/qualifications/gcse

Head of Department: Miss D. McNeill



# GCSE : PHYSICS

## Examining Board : CCEA

## WHY STUDY PHYSICS?

Physics is a study of the laws of nature and describes the forces and energies that govern these laws. It deals with how and why things behave in the way they do. This course aims to encourage you to: develop your knowledge and understanding of physics; the effects of physics on society; the importance of scale in physics; the nature of physics and of the scientific process.

## COURSE CONTENT

#### Unit 1

- Forces and Moments
- Density and Kinetic Theory
- Energy
- Energy Resources and Heat
- Motion
- Radioactivity
- Nuclear Fission and Fusion

### Unit 2

- Waves and EM Spectrum
- Reflection and Refraction of Light
- Lenses and T.I.R.
- Electricity
- Magnetism
- Electromagnetism
- Space Physics

#### Unit 3 (Practical Skills)

- Planning and Investigation
- Carrying out an experiment
- Analysing experimental data
- Drawing conclusions
- Prescribed practicals

External Assessments		Controlled Assessment and Practical Skills	
Year 11	Year 12		
Summer 2021	Summer 2022	Tasks	
Unit 1: 37.5%	Unit 2: 37.5%	Unit 3: Booklet A 7.5%	
90-minute external written examination sat in May of Year 11.	90-minute external written examination sat in June of Year 12.	In Term 2 of Year 12, pupils carry out two practical tasks based on, but not identical to, nine prescribed practicals carried out over two years. Externally set and marked. <b>Unit 3: Booklet B 17.5%</b> 60-minute external "Practical Skills Theory" written examination sat in Term 3 of Year 12.	

## **CAREER OPPORTUNITIES**

Physics opens doors to a wide variety of careers due, in part, to the transferable skills gained through its study.

A list of careers available to you if you study Physics would fill a book – here are just a few of them: Medicine, Dentistry, Pharmacy, Opthalmics, Nursing, Physiotherapy, Radiography, Law, Teaching, Geology, Meteorology, Pilot, Environmental Science, Engineering (Mechanical, Production, Electrical, Electronic, Civil, Chemical, Aeronautical), Computing, Design, Architecture, Industrial or Scientific Research, Marketing, Army, Air Force, Navy.

FURTHER INFORMATION ccea.org.uk/qualifications/gcse Head of Department: Mr. W. Kerr



# GCSE : RELIGIOUS STUDIES (Full Course and Short Course)



Examining Board : CCEA

# WHY STUDY RELIGIOUS STUDIES?

In Ballymena Academy every student studies Religious Studies to public examination level. DependEnt on subject choice a student will study either full course or short course. It is recommended that those students wishing to study Religious Studies to 'AS' or A2 should take full course.

The GCSE specification has been designed to help you as a learner to develop:

- Your interest in and enthusiasm for the study of religion, being inspired by a broad, clear, satisfying and worthwhile course of study that will challenge and equip you to lead a constructive life in the modern world;
- An enquiring, critical and reflective approach to the study of religion, relating it to the wider world;
- Your own values, opinions and attitudes in light of your learning;
- The ability to explore religions and beliefs, having opportunities to reflect on fundamental questions related to belief, engage intellectually and respond personally;
- Your spiritual and moral development, contributing to your health and wellbeing; and
- Your personal, social and cultural development, along with your understanding of different cultures locally, nationally and in the wider worlds, so you may contribute to social and community cohesion.

## **COURSE CONTENT**

Students taking the full GCSE course take **two** units – Christianity through a Study of the Gospel of Matthew; An introduction to Christian Ethics.

Students taking the short course take a unit on An introduction to Christian Ethics.

#### **Gospel of Matthew**

- The identity of Jesus
- Jesus the miracle worker
- The Kingdom of God
- The death and resurrection of Jesus
- The role and nature of Christian discipleship

#### An Introduction to Christian Ethics

- Personal and family issues
- Matters of life and death
- Developments in bioethics
- Contemporary issues in Christianity
- Modern warfare

External Assessments			Controlled Assessment and Practical Skills	
%	Year 11 Summer 2021	Year 12 Summer 2022	%	Tasks
Full Course 100%	Unit 6: 50% An Introduction to Christian Ethics	Unit 4: 50% Christianity through a Study of the Gospel of Matthew	Nil	There is no Controlled Assessment in this subject
Short Course 100%	Unit 6: 100% - An introduction to Christian Ethics No external assessment In Year 11		Nil	There is no Controlled Assessment in this subject

## **CAREER OPPORTUNITIES**

By undertaking this subject, you will be well prepared to study Religious Studies at Advanced level. Studying Religious Studies can lead on to a variety of careers, for example in teaching, medicine, public service, advice work, counselling, journalism, sales and marketing companies, ministry, social work, charity organisations, youth work, community work, libraries and museums.

FURTHER INFORMATION ccea.org.uk/qualifications/gcse

### Head of Department: Miss E. Greer

# **GCSE SCIENCE: DOUBLE AWARD**

Examining Board : CCEA

# WHY STUDY SCIENCE: DOUBLE AWARD?

The GCSE Double Award Science course provides a broad, coherent and practical course that develops confidence in and a positive view of science. It encourages you to appreciate the value of science in your life and in the wider world around you. The course will develop your knowledge and understanding of the material, physical and living worlds and the effects of science on society.

## **COURSE CONTENT**

This option leads to the award of two GCSEs and in content consists of two-thirds of each of the full GCSE specification in Biology, Chemistry and Physics. Pupils will be awarded two grades, on an eight grade scale from A\*A\* being the highest. The Biology component will be taught by a Biology teacher, Chemistry by a Chemistry teacher, and Physics by a Physics teacher.

#### Biology

### Unit 1

- Cells
- Photosynthesis and Plants •
- Nutrition and Food Tests •
- **Enzymes and Digestion** •
- **Breathing and Respiratory** System
- Nervous System and Hormones •
- **Ecological Relationships** •

#### Unit 2

- Osmosis and Plant transport
- **Circulatory System** •
- Reproduction •
- Genome and Genetics •
- Variation and Natural Selection
- Health and Disease •

**Unit 3 Practical Skills (including Prescribed Practicals)** Planning an investigation, carrying out an experiment, analysing experimental data and drawing conclusions.

External Assessments		<b>Controlled Assessment and Pract</b>	ical Skills
Year 11	Year 12	Tasks	
Summer 2021	Summer 2022	Year 12 (2022)	
Biology Unit 1 - 11% Chemistry Unit 1 - 11% Physics Unit 1 - 11% (Each Unit 1: 60 minutes)	Biology Unit 2 - 14% Chemistry Unit 2 - 14% Physics Unit 2 - 14% (Each Unit 2: 75 minutes)	<ul> <li>Practical Skills task – 7.5%</li> <li>Biology Unit 3 Booklet A</li> <li>Chemistry Unit 3 Booklet A</li> <li>Physics Unit 3 Booklet A</li> </ul>	<ul> <li>Term 2</li> <li>Externally set and marked</li> <li>60 minutes for each</li> </ul>
<b>Please note:</b> One of the above Units is taken in November – Year 12.		<ul> <li>Practical Skills Theory – 17.5%</li> <li>Biology Unit 3 Booklet B</li> <li>Chemistry Unit 3 Booklet B</li> <li>Physics Unit 3 Booklet B</li> </ul>	<ul> <li>Term 3</li> <li>Externally set and marked</li> <li>30 minutes for each</li> </ul>

### **CAREER OPPORTUNITIES**

It provides a thorough preparation for the study of sciences and related courses at GCE Advanced Subsidiary level and Advanced level. It also allows you to develop transferable skills that will benefit you in vocational training and employment. See careers sections - Biology, Chemistry and Physics.

### FURTHER INFORMATION

### Science Co-ordinator: Mr. M. Christie

ccea.org.uk/qualifications/gcse

### Chemistry

### Unit 1

- Atomic structure; Nanoparticles
- **Bonding and Structures** •
- Symbols, formulae, equations •
- Periodic Table •
- **Quantitative Chemistry** •
- Acids, bases; salts; Chemical analysis

#### Unit 2

- Metals and the reactivity series •
- Redox, rusting and iron
- Rates of reaction; Equilibrium •
- **Organic Chemistry** •
- **Quantitative Chemistry**
- Electrochemistry
- Energy Changes; Gas Chemistry •

#### **Physics**

#### Unit 1

- Forces and Moments
- **Density and Kinetic Theory**
- Motion
- **Energy and Energy Resources** •
- Radioactivity .
- **Nuclear Fission and Fusion**

#### Unit 2

- Waves and EM Spectrum •
- **Reflection and Refraction of** • Light
- Lenses
- Electricity
- Magnetism
- **Space Physics** •

# **GCSE SCIENCE: Single Award**

Examining Board : CCEA

# WHY STUDY SCIENCE: Single Award?

The GCSE Single Award Science course provides a broad, coherent and practical course that develops confidence in and a positive view of science. It encourages you to appreciate the value of science in your life and in the wider world around you. The course will develop your knowledge and understanding of the material, physical and living worlds and the effects of science on society.

## **COURSE CONTENT**

This option leads to the award of one GCSE and in content consists of one-third of each of the full GCSE specification in Biology, Chemistry and Physics. Normally, one teacher will teach all three components. It is not normally possible to study 'A' Level Biology, Chemistry and Physics if this option is chosen.

#### Unit 1 : Biology

- Cells
- Food and diet
- Chromosomes and genes
- Co-ordination and control
- Reproductive system
- Variation and adaptation
- Disease and body defences

**Unit 4: Practical Skills (including Prescribed Practicals)** 

Ecological relationships

#### Unit 2 : Chemistry

- Acids, bases and salts
- Elements, compounds, mixtures
- Atomic structure; periodic table
- Bonding
- Materials
- Symbols, formulae, equations
- Quantitative analysis
- Metals and reactivity series
- Rates of reaction
- Organic chemistry

### Physics

- Electrical circuits
- Household electricity
- Energy
- Electricity generation
- Heat transfer
- Waves
- Road transport and safety
- Radioactivity
- Earth in space
- Planning an investigation; carrying out an experiment; analysing experimental data; drawing conclusions.

External Assessments		Controlled Assessment and Practical Skills
Year 11	Year 12	Tasks
2020-2021	2021-2022	
February 2021	November 2021	Unit 4: Booklet A 7.5% (120 minutes)
Unit 1 Biology – 25% 60 minutes	Unit 2 Chemistry – 25% May 2022 Unit 3 Physics – 25% Each Unit: 60 minutes	In Term 2 of Year 12 pupils carry out two practical tasks based on, but not identical to, nine prescribed practicals carried out over two years. Externally set and marked.
		Unit 3: Booklet B 17.5% (75 minutes) 60 minute external Practical Skills theory written examination. (Year 12 Term 3)

## **CAREER OPPORTUNITIES**

This course provides a broad overview of key aspects of Chemistry, Biology and Physics and an introduction to scientific methodology and key practical skills. It allows you to develop transferable skills that will benefit you in vocational training and employment.

FURTHER INFORMATION ccea.org.uk/qualifications/gcse Science Co-ordinator: Mr. M. Christie



# **GCSE: SPANISH**

## Examining Board : CCEA

## WHY STUDY SPANISH?

Spanish is one of the most widely-spoken languages in the world. Approximately 500 million people, in 22 countries, have Spanish as their mother tongue, and in the U.S.A. there are over 40 million Spanish speakers. It is one of the five official languages of the United Nations and is extremely useful in the field of international relations. Spanish offers many transferable skills for careers in Maths, International Finance, the Software Industry, Medicine, Engineering and Law. Latin America is a growing market for U.K. companies and Spain is one of the most popular destinations for British holidaymakers.

# COURSE CONTENT

Through studying Spanish for GCSE, pupils have the opportunity to:

- develop their understanding of the Spanish language
- develop their ability to communicate effectively in spoken and written Spanish
- devleop their knowledge of Spanish culture •
- develop their awareness and understanding of Spanish-speaking countries and communities
- acquire the foundation for further study of Spanish to AS and/or A2 •

You will study a range of topics in three contexts for learning:-

- Identity, Lifestyle and Culture •
- Local, National, International and Global Areas of Interest
- School Life, Studies and the World of Work

The four skills of Reading, Listening, Speaking and Writing will be assessed. In preparing for the CCEA specification, pupils will learn to communicate effectively in spoken and written Spanish and to reading and listening stimulus material on the following topics:-

- Relationships Families and • Friends
- Health and lifestyle
- Social and global issues
- Travel and tourism •
  - **Environmental issues** .
  - Social Media and new technology
- Daily routine and free time and leisure activities

Community involvement

Local environment

- Spanish culture, celebrations, festivals and customs
- School life
- Studies and co-curricular activities
- Part-time jobs, future plans and career choices

External Assessments			Controlled Assessment and Practical skills	
%	Year 11 Summer 2021	Year 12 Summer 2022	%	Tasks
100%	No external assessment	Unit 1: 25% Listening Unit 2: 25% Speaking Unit 3: 25% Reading Unit 4: 25% Writing	Nil	There is no Controlled Assessment in this subject

# CAREER OPPORTUNITIES

Studying Spanish can lead to further study or a career, for example in tourism, broadcasting, marketing, enterprise, business, law or teaching. There may also be opportunities for study abroad or other international programmes. By studying Spanish pupils will acquire attractive and highly sought after linguistic skills for life and the work place and develop a wide range of communication skills attractive to University admissions.

## **FURTHER INFORMATION:** ccea.org.uk/qualifications/gcse

## Head of Department: Mrs. R. Hamill





# GCSE : TECHNOLOGY AND DESIGN



## Examining Board : CCEA

# WHY STUDY TECHNOLOGY AND DESIGN?

- It provides you with knowledge and understanding in engineering design and manufacturing disciplines.
- It makes you aware of creative design as applied in industry.
- It incorporates Produce Design, and Systems and Control.
- It encourages you to be creative, innovative and prepared to take design risks.
- It makes you aware that high quality design and technology are important.
- It provides you with experience in practical skills and problem-solving skills.

## **COURSE CONTENT**

Unit 1 : Technology and Design Core Unit 2 : Electronic and Content Microelectronic Control Systems

- Designing
- Materials
- Manufacturing, using tools and processes
- Electronic Control Systems
- Mechanical Control Systems
- Pneumatic Systems and Control
- Computer Control Systems
- Systems and controls
- Electronic concepts
- Printed Circuit Boards
- Electronic components, including resistors, diodes, thyristors, NPN transistor
- Inputs, Outputs, Potential dividers
- Relays
- Integrated Circuits, e.g. 555 Timer
- Timing circuits
- Time constants
- Digital and Analogue signals
- Flowchart programming
- Microcontrollers, robotics

#### Unit 3 : Design and Manufacturing Project

- Design and Innovation
- Manufacturing practices
- Materials, Components and Fabrication
- Market Influences
- Social Responsibility of Product Design

Students complete a design project comprising a design portfolio and an associated manufacturing task. The project will use the theory taught in Units 1 and 2.

External Assessments		Controlled Assessment and Practical Skills		
%	Year 11	Year 12	%	Task: Design project in Year 12
	Summer 2021	Summer 2022		
50%	No external assessment in Year 11	Unit 1: 25% Technology and Design Core content. Unit 2: 25% Electronic and Microelectronic Control systems.	50%	Design project comprising a design portfolio and associated manufacturing task.

## **CAREER OPPORTUNITIES**

With this qualification you can progress to a GCE in Technology and Design or on to higher and further education, where you can complete many qualifications ranging from product design to mechanical, electrical, civil and aeronautical engineering. Other career areas include software engineering, graphics design, telecommunications, prosthetics, architecture and teaching.

This qualification will provide you with the understanding and concepts you need for the world of work, and students who follow post-GCSE vocational courses, including apprenticeships, will find this GCSE subject very useful.

Head of Department: Mr. J. Turtle