STRATHEARN SCHOOL

A LEVEL SUBJECT CHOICE BOOKLET 2018

INTRODUCTION

This booklet contains information about each of the 24 AS/A-level subjects from which you may choose. You will spend a long time studying each of your subjects, so it is well worth taking time to find out all you can about them, before you make your choices. You should:

- find out all you can about the kinds of career you might be interested in,
- read the relevant pages in this booklet,
- talk to pupils already doing the subjects at AS/A-level,
- talk to your teachers,
- talk to your parents,
- talk to the Careers Advisor or any member of the Careers Department in School,
- talk to the Careers Advisor from the Department of Economy who you have already met this year.

No matter what subjects you choose, you will find AS/A-level work very different to GCSE.
Here are some of the differences which sixth form pupils have told us about:

- There is more work in 3 or 4 AS/A-levels than in 9 GCSEs.
- You have to do more work on your own initiative and independently.
- You have to apply your knowledge to a greater extent, not just learn facts.
- There is a lot more extra reading 'around the subject'.
- You will not succeed if you have too many commitments outside schoolwork, for example a part-time job which takes up a lot of your time.

Some of the questions which pupils ask themselves when choosing AS/A-levels are:

1. Do I enjoy the subject?

This is a very important question, since you will spend a long time studying each of your AS/A-level subjects.

2. Am I good at the subject?

Look at your test and exam results and the feedback from homework. Also ask your teacher. This may be done during the school day and/or at the form 5 Parents' Evening. You should normally expect to achieve at least grade B at GCSE in any subject which you hope to study at AS or A-level.

3. Do I need the subject for the university course/career which I want to do?

This question is considered in detail later in the booklet.

AS and A Level Courses

Pupils study either 3 or 4 subjects in Lower Sixth and must study at least 3 in Upper Sixth.

Most subjects comprise of 4 units with the exception of Science and Mathematics. The first 2 units (or in the case of Science and Mathematics, 3 units) represent **AS**. The second 2 units (or in the case of Science and Mathematics, 3 units) represent the second year **A2**.

Pupils will not necessarily have the same teacher(s) in U6 as you had in L6.

How many AS subjects should you do in Lower Sixth?

In the first instance pupils are asked to choose 4 courses they would prefer to follow in Sixth Form. Following the issue of GCSE results, Form 5 pupils entering Lower Sixth will have an opportunity to meet with a careers advisor or member of the Senior Management Team on **Friday 31 August** to discuss the most suitable options, considering the pupil's GCSE results and career plans.

4 AS levels are required for some of most competitive universities and courses. However if your GCSE grades suggest that you would find 4 AS subjects too much, then you should do 3 and concentrate your efforts on these to get the best possible grades.

If you are not sure what to do at any stage, you should consult Mrs Quinn or Mrs Hearst.

Can you repeat exams at the end of Upper Sixth?

Yes. If you receive a disappointing result at the end of L6, you can repeat one or more AS module exams at the end of U6.

Feasibility of classes

It may not be possible for us to provide every subject combination, as some may lead to classes which are too small or do not allow the maximum choice for all pupils.

If this happens, you will be advised of this and the possible options will be discussed.

Collaboration Subjects

If you opt for one of our collaborative courses hosted by; Ashfield Boys', Bloomfield Collegiate or Campbell College, this will necessitate travelling by taxi between the school sites. Collaboration occurs on a Monday and Thursday morning and on a Thursday and Friday afternoon. Where collaboration occurs for period 1 or finishes period 9, a pupil is expected to make their own way to or from the 'host' school. Strathearn use the reputable company Value Cabs for this purpose and we ensure that they have the necessary insurance details to transport our pupils.

NB

- **You may select only one collaboration subject**
- **Places in collaboration subjects are dependent on availability in the other schools and cannot be confirmed until August 2018. If a course is oversubscribed, we will examine GCSE course profile to see if it allows progression into a collaborative subject**

Subject Choice and University Courses/Careers

You should bear the following points in mind:

- For many university courses/careers, any 'AS'/'A' level subjects are suitable.
- For some university courses/careers, certain 'AS'/'A' level subjects are desirable but not essential.
- For other university courses/careers, certain 'AS'/'A' level subjects may be necessary.

How do you find out what applies to the university course/career which you want to do?

First of all, it is ***your*** responsibility to find out! You should do some or all of the following:

1 Talk to someone who is currently doing, or has ***recently*** done the course, or is ***recently*** qualified in the career. (Things can change from year to year, so make sure the information is up to date!)

2 Talk to a member of the Careers staff — Mrs Hearst, Mr Anderson, Mr Atkinson, Mrs Millar, Mrs Staples, Miss Kimber, Miss Griffith, Miss Grier, Mrs McCracken or Mrs Quinn. This may be done during the school day and/or at the Form 5 Parents' Evening.

3 Study the information available in the Careers Room, which is open before Registration in the morning, at break, lunch time and after school. The following are useful information sources which may be found there.

(i) 'Career Starter' and 'Career Ideas' can be accessed on the computers in school and Careers ServiceNI (www.nidirect.gov.uk/careers), and www.investigatecareers.com (password amazon) can be accessed on the internet. These resources will help you to find out about careers which may interest you.

(ii) The Russell Group of Universities has lots of very relevant information on its website

http://www.russellgroup.ac.uk/informed-choices.aspx

(iii) There is also a lot of very useful information regarding subject choices and university courses on the 'Useful Careers Websites' section on our School Website.

A wide range of books, journals and reference material is always available in the Careers Department, providing general and specific information about careers and courses.

Criteria for Entry in Sixth Form

Strathearn will give preference to pupils on the basis of academic achievement. Academic achievement will be judged with reference to:

- the grades achieved in GCSEs*
- the relevance of the subjects taken
- information from recent school reports.

The minimum required for entry into the Sixth Form will be seven passes in relevant GCSE subjects at grades A to C with at least four passes at grade B or better. Relevant subjects will include no more than one short course GCSE and exclude Learning for Life and Work.

If there are more girls who are eligible than there are places available, places shall be awarded in the following order:

1. Applicants with the highest GCSE point score in relevant subjects – an applicant's GCSE point score will be calculated on the basis of grades in full course GCSEs as follows:

   A* = 4 points, A = 3 points, B = 2 points, and C = 1 point

   with half the relevant points awarded to a short course GCSE.

2. In the event of a tie, priority will be given to the girl whose home is closer to the School. Distance will be measured in a straight line using an Ordnance Survey web distance measurement tool from the front door of the girl's home to the front entrance of the School's main administrative building. Home will be taken to mean the girl's address appearing on the Application Form.

Applicants applying from outside Northern Ireland and who are seeking a Boarding Place at Campbell College must satisfy the School that their academic achievement is equivalent to the standard set out above.

Criteria for any extra places made available by the Department of Education for admission into Sixth Form (Year 13).

The Department of Education may, at the School's request, increase the number of pupils that the School can admit to its Year 13. Places that become available in this way shall be allocated only to pupils who meet the basic eligibility criteria for sixth form study (as above) and shall be allocated in the order determined by the criteria to be applied in the following order:

1. Pupils who have most recently completed Year 12 in Strathearn.
2. Pupils who are applying from outside NI and who are seeking a Boarding place at Campbell College.
3. Pupils from other schools where admission to an extra place at Strathearn has been agreed by the Department of Education.**

**Parents should note how the Department of Education (DE) will, in response to a school's request, increase the school's enrolment number in order to allow an extra post -16 pupil to enrol. DE will first check whether there is another school or schools of a type suitable for that pupil within an hour's journey of where the pupil lives. If there is, DE will then check whether this other school or schools may provide all of the post-16 courses that the pupil wishes to pursue. If these checks find that no other suitable school may provide all of the post-16 courses that the pupil wishes to pursue - then DE will agree a school's request for an extra place.

What is a school of a type that is suitable for a pupil? To determine this, DE first considers all schools to be one of 4 types: (1) denominational (2) non-denominational (3) Integrated and (4) Irish-Medium. A school requesting an extra place for a post-16 pupil will belong to one of these 4 types and DE will consider any other school or school from this same type as suitable for the pupil. DE will also consider as suitable for the pupil any school from the same type as the type of school that the child attended in Year 12.

ART AND DESIGN

The AS and A Level specification in Art and Design progresses naturally from GCSE Art and Design. The course is suitable for any student who has enthusiasm and aptitude for the subject.
A passion for creative learning is essential, and working independently outside of allocated class time is the key to success.
Studio periods, a lunch time and after school Art Club and organised gallery visits are provided by the department to support our young artists, but a commitment to expanding one's own knowledge of Art and Design is also important.
Advice on portfolio preparation is also given to those students who wish to apply for Higher Education courses in the subject after Sixth Form.

Specification Overview

The course is usually team taught, so students can benefit from the ideas and input of two members of staff.

Students are given project briefs which fulfil the exam board requirements but which will allow for personal development. Skills from GCSE will be revised and developed further.

Exciting new approaches introduced are in painting, print-making, ICT, ceramics, photography, drawing and textiles. Students have a choice of four pathways in; Combined Studies, Photography & Lens-based Media, Three Dimensional Design and Textiles.

During the course you will:

- Demonstrate skilful use of the visual elements: line, tone, texture, pattern, form and colour.
- Build on your recording skills of drawing in a wide range of media and application of photography.
- Experiment with a broad range of media, techniques and processes in fine art & design.
- Develop, analyse and communicate ideas to give your work personal meaning.
- Undertake self-review of your progress.
- Gain insights into the work of other artists who will inspire your art.
- Produce final outcomes that reflect your skills and creative investigations.

AS Course

September – February:
Experimental Portfolio Coursework; the theme is set by the Examination Board (CCEA).
February- May:
Personal Response; production of a final outcome as a result of the experimentation undertaken.

During both the experimental portfolio coursework and personal response components, work is carried out in class and also independently in the student's own time.

- For the **experimental portfolio**, a **sketchbook** is produced along with preparatory work for display.
- **The Personal Response** (final outcome) will be in a media of the student's choice and is accompanied by evidence of planning and a range of trials.

The Personal Response concludes with a timed, controlled **exam of 10 hours.**

A2 Course

The structure, timing and requirements of the course are similar to Lower Sixth, but the final, controlled exam is **15 hours**. The coursework element also contains an **illustrated dissertation (**which is externally marked by CCEA). Students will identify and study the work of contemporary and historical artists & designers and write about them. This, in turn, will inform and inspire their practical work. Staff work closely with each pupil to help them identify a topic and structure their dissertation.

During both the **Personal & Critical Investigation** coursework and **Thematic Outcome** components, work is carried out in class and also independently in the student's own time.

- For the **Personal & Critical Investigation**, a **sketchbook** is produced along with experimental work for display.
- **The Thematic Outcome** will be in a media of the student's choice and is accompanied by evidence of planning and a range of trials.

How is the subject assessed?

L6 Assessment (AS)

AS 1	Experimental Portfolio	50% of 'AS'	(20% of 'A' Level)
AS 2	Personal Response	50% of 'AS'	(20% of 'A' Level)

U6 Assessment (A2)

A2 1	Personal & Critical Investigation	60% of A2	(36% of 'A' Level)

Incorporating 2 linked elements:

(1)	Practical work – sketchbooks and experimentation in chosen mediums	40% of A2	(24% of A Level)
(2)	Written element – an illustrated dissertation of 1000 – 3000 words	20% of A2	(12% of A Level)

A2 2	Thematic Outcome	40% of A2	(24% of 'A' Level)

Student work is internally marked by the school, and externally moderated by the examinations board (except the written investigation at A2).

Students are asked to present an exhibition of their work for assessment purposes at the end of both years.

Who can I get more information from?

All of the Art staff in the department are involved in teaching Sixth Form Art and Design and will be happy to advise.

BIOLOGY

Biology is the study of living things. The AS/A2 course is a continuation from GCSE and so you will recognise some of the topic titles below but of course they will be studied in much greater depth. It is important that you have an enquiring mind and want to develop your scientific skills, whilst enjoying the challenge of increasing your knowledge about the natural world.

Specification Overview

The course studies organisms at different levels of organisation. This starts with how the cell works, including some biochemistry.

Ecology is a topic studied at both AS and A2 ensuring that organisms are considered in their natural habitats, not just in isolation. The specification includes Northern Ireland perspectives, particularly with respect to biodiversity. There is a residential field trip in the AS year. Most pupils thoroughly enjoy this section of the course, as do the staff!

Some pupils choose to study biology because it links to their current career aspirations but it is good to choose it simply because you enjoyed the subject at GCSE.

Pupils who have completed GCSE Double Award Science or GCSE Biology are able to carry on to AS study in this subject.

Moving on from GCSE, you will find that there is a lot to do and to learn. You will be taught study skills to help you achieve success.

AS Course

AS1 Molecules and Cells
In this module you will learn about Molecules, Enzymes, Viruses, Cell Structure, Cell Physiology, Cell Division and Tissues and Organs.

AS2 Organisms and Biodiversity
In this unit you will learn about Transport and Exchange Mechanisms in Plants and Mammals, Adaptations of Organisms and Biodiversity.

AS3 Practical Skills
There are a large number of practical classes which will allow you to develop a high degree of skill in the lab. The field course allows you to apply the theory of ecology to real habitats in. Assessment of practical skills takes place both in the classroom and by a written exam and is worth 25% of the final AS score.

A2 Course

A2 1 Physiology and Ecosystems
In this unit you will learn about Homeostasis, Immunity, Co-Ordination and Control in plants and animals and Ecosystems.

A2 2 Biochemistry, Genetics and Evolutionary Trends
In this unit you will learn about the Biochemistry of Respiration and Photosynthesis, DNA as the Genetic Code, Gene Technology and Plant and Animal Kingdoms.

A2 3 Practical Skills
The development of practical skills continues at A2. The focus is on the analysis of data and the evaluation of methods.

These topics are written to stretch and challenge you as your knowledge increases and there will be opportunities to discuss ethical issues related to science.

How is the subject assessed?

CCEA exam board is used.

AS
There are 3 written exam papers at the end of the year. Modules AS 1 and AS 2 are primarily used to assess knowledge, understanding and scientific skills. Practical skills are assessed both in class by carrying out a series of experiments and by a written exam (Module AS 3).

A2 is similar to AS with further assessment of skills and knowledge by 3 written papers. Modules A2 1 and A2 2 cover the course content. Module A2 3 is an external exam assessing practical skills added to the result of internal assessment of practical skills carried out in class.

Where can I get more information?

The teachers for A level Biology are Miss Grier, Mrs Dalzell and Mrs Gray. Any of the science teachers can give extra information or visit the biology section of the school library, browse the books and see if you want to learn more.

BUSINESS STUDIES

Specification Overview

The Business Studies course at AS and A2 Level encourages students to:

- develop a lifelong interest in business;
- gain a holistic understanding of business and the international marketplace;
- develop a critical understanding of organisations and their relationship with key stakeholders;
- evaluate the role of technology in business communication, business operation and decision making;
- generate enterprising and creative solutions to business problems and issues;
- understand the ethical dilemmas and responsibilities faced by organisations and business decision makers;
- develop advanced study skills that help them prepare for third level education; and
- acquire a range of relevant business and generic skills including decision making, problem solving and interpretation of management information.

AS Course

AS1: Introduction to Business

This unit introduces students to the business world. It begins, as many businesses do, with the entrepreneur and what motivates individuals to develop business enterprises. Students become familiar with different business ownership structures and the key stakeholder groups that may have an interest in how a business is managed.

Students acquire a critical understanding of the importance of quality and its significance in the competitive marketplace, including recruiting and training a quality labour force and the production process. Students should appreciate the impact of management and leadership styles on employee motivation and business operations.

Students may use a calculator in the examination for this unit.

AS2: Growing the Business

Students explore the role of technology in growing a business and how it helps with decision making. They also understand the impact of competition on a business.
Students develop a critical understanding of the marketing process, marketing strategy and the use of e-business.

Students also develop an appreciation of the role of accounting and financial information in business decision making and financial control.

Students may use a calculator in the examination for this unit.

A2 Course

A2: 1 Strategic Decision Making

Students identify business objectives and the potential for these to conflict with those of various stakeholder groups. Students analyse and evaluate stakeholder management strategies.

Students gain an insight into business planning and the need to manage risk and uncertainty when developing business strategies. They also analyse the importance of accounting and financial information in making strategic business decisions.

Students demonstrate quantitative skills **without** the use of given formulae. They may use a calculator in the examination for this unit.

A2: 2 The Competitive Business Environment

In this unit, students examine the macroeconomic framework that businesses operate in. They evaluate the impact of globalisation on business activities. Students develop an appreciation of the importance of ethics and sustainability on business decision making and culture. They also evaluate the influence of stakeholders on business operations.

Students examine how businesses are affected by and react to change in the dynamic and technology-driven business environment.

Students demonstrate quantitative skills **without** the use of given formulae. They may use a calculator in the examination for this unit.

How is the subject assessed?

The examination board is CCEA

- **AS1 (Introduction to Business)**
  2 compulsory structured data responses (80 marks)
  1 examination (1 hour 30 minutes)
  50% of AS and 20% of A Level

- **AS2 (Growing the Business)**
  2 compulsory structured data responses (80 marks)
  1 examination (1 hour 30 minutes)
  50% of AS and 20% of A Level

- **A2: 1 (Strategic Decision Making)**
  5 compulsory structured data response (90 marks)
  1 examination (2 hours)
  30% of A level

- **A2. 2 (The Competitive Business Environment)**
  6 compulsory structured data responses (90 marks)
  1 examination (2 hours)
  30% of A Level

Who can I get more information from?

You can obtain more information from Mrs White or http:/www.ccea.org.uk/businesstudies.

CHEMISTRY

This course is most suited to those interested in understanding how Chemistry impacts on and underlies virtually everything from the global community to the basis of life itself. It is open to those who have successfully completed either GCSE Chemistry or GCSE Double Award Science.

Specification Overview

GCE Chemistry is the study of elements and the compounds they form. It involves the study of Physical, Organic, Inorganic Chemistry as well as periodic trends, analytical, transition metals and electrochemistry.
This course is suitable if you wish to further your education in chemistry. You can take this course as a one year AS level course which would be beneficial for use with many subjects you may wish to study in the future and it would also be beneficial for a variety of careers. If you go on to study the full GCE (i.e. both the AS and A2 course) then it provides a good foundation for further study at university e.g. medicine, dentistry, chemical engineering etc or for students going into the world of work.

If you have:-

- an interest in and enthusiasm for Chemistry, the further study of Chemistry and careers in the subject area.

If you want to develop:-

- an appreciation of how scientific decisions are made and how the sciences contribute to the success of the economy and society;
- A deeper understanding of how science works and the knowledge and understanding of different areas of the subject and how they relate to each other.

Then you should consider this course.

AS Course

There are three units in the AS course

AS 1: Basic Concepts in Physical and Inorganic Chemistry
In this module you will learn about atomic structure and bonding as well as the shapes adopted by molecules and ions and the intermolecular forces existing between them. There is a general introduction to the Periodic Table with an in-depth study of Group VII. Redox reactions are introduced while analytical chemistry consists of acid-base titrations.
Basic calculations and equations are an integral part of this module.

AS 2: Further Physical and Inorganic Chemistry and Introduction to Organic Chemistry
Organic chemistry forms a major part of this unit with work on the chemistry of alkanes, alkenes, haloalkanes and alcohols. There is an introduction to equilibrium and kinetics while thermochemistry is covered in some depth. The analytical chemistry aspects are covered by IR spectroscopy and qualitative analysis. There is also further work on basic calculations.

AS 3: Practical Assessment
In this module you will complete practical booklet A lasting 1 hour, consisting of a variety of practical tasks which are worth 25 marks and practical booklet B lasting 1 hour 15 minutes consisting of questions relating to practical techniques which is worth 55 marks. Practical booklet A is completed in a laboratory, practical booklet B is completed in the examination hall.

A2 Course

There are three units in the A2 course.

A2 1: Periodic Trends and Further Organic, Physical and Inorganic Chemistry
In this module there is further development of equilibrium and kinetics you will also learn about Lattice Enthalpy and Entropy. The study of organic chemistry is continued with units on isomerism, aldehydes and ketones, carboxylic acids and esters, fats and oils. Periodic Trends and environmental chemistry complete this module.

A2 2: Analytical, Transition Metals, Electrochemistry and Further Organic Chemistry
In this module you will learn about analytical chemistry through units on mass spectrometry, spectroscopy, volumetric analysis, colorimetry and chromatography. The inorganic chemistry studied is based mainly on Transition metals with specific reference to Cr and V. Organic nitrogen compounds form the backbone of the work on organic chemistry and there is a final unit on polymer chemistry.

A2 3: Practical Assessment
In this module you will complete practical booklet A, consisting of practical tasks and practical booklet B consisting of questions relating to practical techniques. Practical booklet A is completed in a laboratory, practical booklet B is completed in the examination hall.

How is the subject assessed?

The examinations board is CCEA and the course is assessed by written examination and practical coursework.
Each of units AS 1 and AS 2 are worth 40% of the AS course and 16% of A Level. The exam consists of a 1 hour 30 minute written paper containing multiple choice and structured questions.
The AS 3 Practical Assessment unit is worth 20% of the AS course and 8% of A Level. It consists of a 1 hour 15 minute practical examination (laboratory based) and a 1 hour 15 minute written paper on practical techniques (completed in the examination hall).
Each of units A2 1 and A2 2 is worth 40% of the A2 course and 24% of A Level. It consists of a 2 hour written paper containing multiple choice and structured questions.
The A2 3 Practical Assessment unit is worth 20% of the A2 course and 12% of A Level. It consists of a 1 ¼ hour practical examination (laboratory based) and a 1 ¼ hour written paper on practical techniques.

Who can I get more information from?

If you would like any more information about the Chemistry A' Level course, please speak to Miss Stewart, Mrs McCracken or Miss Griffith.

COMPUTER STUDIES

(Please note this subject is at present offered through collaboration, in Campbell College.)

Note: It is not possible to select A Level Digital Technology with this course.

WHY CHOOSE COMPUTER SCIENCE?

Computers are widely used in all aspects of business, industry, government, education, leisure and the home. In this increasingly technological age, a study of computer science, and particularly how computers are used in the solution of a variety of problems, is not only valuable to the learners but also essential to the future well-being of society

PRIOR ATTAINMENT

- Grade B in GCSE Computing and a grade B in GCSE Mathematics, plus a grade C in GCSE English.
- **OR** Grade A in GCSE Mathematics and a minimum of grade C in GCSE English.

Specification Overview

The WJEC AS and A Level in Computer Science encourages learners to develop:

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

AS Course

Unit 1: Fundamentals of Computer Science

The main areas to be covered in this unit of work are:

- **Hardware and communication**
- **Logical operations**
- **Data transmission and representation**
- **Data structures and data organisation**
- **Database systems**
- **Operating Systems** environments.

Unit 2: Practical Programming to Solve Problems

The main areas to be covered in this unit of work are:

- **Algorithms and programs**
- **Systems Analysis**
- **Software engineering and practical programming**).
- **Data Security and data integrity**
- **Economic, moral, legal, ethical and cultural issues relating to computer science**

A2 Course

Unit 3: Programming and System Development

This unit builds on the topics covered previously in unit 2. Students will look in more technical detail at each of the topic areas previously studied.

In addition they will look at the use of recursion in algorithms and programs and consider the potential elegance of this approach. They will also learn how to follow search and sort algorithms and programs and make alterations to such algorithms in addition to being able to write their search and sort algorithms and programs by the end to the unit of study.

Unit 4: Computer Architecture, Data, Communication and Applications

This unit builds on the topics covered previously in unit 1. Students will look in more technical detail at each of the topic areas previously studied.

In addition they will look at the need for a range of types of software including safety related, control, expert, wide and local area information exchange systems. They will also look closely the need for and the purpose of cryptography and biometrics and their role in protecting data and computer systems.

Unit 5: Programmed Solution to a Problem

This unit requires the learners to investigate, design, prototype, implement, test and evaluate a computer solution to a substantial problem of their own choice.

An investigation into the existing problem must be documented before students go on to design and then eventually develop, test and evaluate a solution to their proposed problem. The solution developed and the documentation produced will be based upon the skills and knowledge of the Python programming language developed in Unit 2 and 3 of this qualification.

How is the subject assessed?

UNIT NAME	ASSESSMENT METHOD	WEIGHTING
Unit 1: Fundamentals of Computer Science	Written examination: 2 hours	25% of A Level (62.5% of AS)
Unit 2: Practical Programming to Solve Problems	On-screen examination: 2 hours	15% of A Level (37.5% of AS)
Unit 3: Programming and System Development	Written examination: 2 hours	20% of A Level
Unit 4: Computer Architecture, Data, Communication and Applications	Written examination: 2 hours	20% of A level
Unit 5: Programmed Solution to a Problem	Internal assessment Students compile a portfolio showing evidence of the analysis, design, development, testing and programmed solution to a problem of their choice	20% of A level

Who can I get more information from?

Please talk Mrs Quinn

DIGITAL TECHNOLOGY

Note: It is not possible to select A Level Computer Studies with this course.

If you wish to learn more about the latest technological developments in the world of ICT, this is the subject for you. With the increasing dependence on ICT in every walk of life it is essential that you gain a qualification which prepares you for the world of work and demonstrates your ability in this area. Equally, undertaking the full A level qualification gives you the opportunity to progress to higher education leading to professional IT management careers.
The specification builds upon but does not depend on the knowledge and skills acquired at KS3 and GCSE. It is therefore possible for academically stronger pupils to embark on this course without having studied GCSE ICT.

Specification Overview

This specification encourages pupils to: -

- develop a genuine interest in digital technology
- understand the system development process through the development of an application
- appreciate the impact and consequences of the use of technology on individuals, organisations and society as a whole
- understand the social, legal and ethical implications of using digital technology
- apply their skills to work-related scenarios
- develop advanced study skills to prepare them for 3rd level education

AS Course

AS1: Approaches to System Development (1 hour 30 minutes examination)
50% of AS
20% of A level
In this unit, pupils develop knowledge and understanding of the various approaches to the development of complex systems, the key stages in the development process and the outputs produced at each stage.

AS2: Fundamentals of Digital Technology (1 hour 30 minutes examination)
50% of AS
20% of A level
In this unit, pupils develop knowledge and understanding of the fundamentals of any system such as data representation, computer architecture, software and the user interface.

A2 Course

A2 1: Information Systems (2 hours 30 minutes examination)
40% of A level
In this unit, pupils build on the material learned in AS2 to extend their knowledge and understanding of information systems.

A2 2: Internal Assessment
20% of A level
In this unit pupils have the opportunity to become involved in a real-world situation where they can apply their skills, knowledge and understanding of digital technology to solve a problem for a specified client. Pupils have approximately 60 hours to compile a portfolio showing evidence of the analysis, design, development, testing and evaluation of their application.

More information is available from:

Mrs D Martin HOD ICT (dmartin927@c2kni.net)
Miss R Mallon (rmallon376@c2kni.net)

DRAMA & THEATRE STUDIES

EDEXCEL DRAMA & THEATRE STUDIES A-LEVEL

Specification Overview

Drama and Theatre Studies A' level is designed to provide a balance across a range of learning activities. This subject combines the activities of exploring plays, creating theatre, the performing of plays, the analysis of live theatre and the critical evaluation of these elements. Students completing the course successfully will have a thorough understanding of drama and theatre, highly toned analytical and creative skills and an ability to communicate effectively with others.

We offer regular theatre trips locally and a trip to London to expose our students to carefully selected productions.

The course is 60% practical work carried out over two years and 40% final examination in the summer of Upper Sixth.

The Drama Department in Strathearn includes experienced examiners from this board and has maintained an outstanding performance of 100% A*- B grade at A level for the last three years.

A LEVEL COURSE – Please note that this subject is a two year, linear course with no AS level or subsequent AS grade or examination.

- Component 1 – Devising – Pupils prepare their own piece based on a practitioner and a key extract from a published play. They complete a 3000-word portfolio based on the process.

- Component 2 – Text in Performance – Pupils perform a scripted group piece and a monologue/ duologue to an external examiner.

- Component 3 – Theatre makers in Practice – Pupils complete an examination based on: A) A live theatre review, B) 'Machinal' By S. Treadwell and C) 'Lysistrata' by Aristophanes.

How is the subject assessed?

Component 1: Coursework – internally assessed. 40% of qualification. Lower Sixth.

Component 2: Coursework – externally assessed. 20% of qualification. Upper Sixth.

Component 3: Examination – externally assessed. 40% of qualification. Throughout course.

Who can I get more information from?

Ms Ferris

ENGLISH LITERATURE

Specification Overview

English Literature in all its forms asks us to consider what it means to be human: to think about life, death, happiness, sadness, how we live and how we create meaning. It invites us to consider characters like ourselves but also people whose views and behaviour might be very different.
As an A Level, English Literature is regarded as a 'facilitating' subject: it provides you with the opportunity to display your ability to cope with complex, demanding material; it allows you to develop powers of analysis; and it tests whether you can think independently. It is certainly a demanding A Level but it is one which we consider very rewarding.
In this subject you will study poetry, plays and novels. We'll be interested in how stories are constructed and how writers present their themes and ideas. We'll be looking at how literary texts have been shaped by contexts in which they were written. You will use all the skills that you have developed in GCSE English Literature. You'll be expected to have ideas and opinions: this subject is delivered mainly through class discussion.

AS Course

AS Course

AS 1: The Study of Poetry 1900–Present and Drama 1900–Present

You will study paired poets, such as Ted Hughes and Sylvia Plath, and a play such as *A Streetcar Named Desire* by Tennessee Williams.

AS 2: The Study of Prose Pre 1900

You will study a novel such as *Frankenstein* by Mary Shelley.

A2 Course

A2 2: The Study of Poetry Pre 1900 and Unseen Poetry

You will study a poet such as Emily Dickinson and you will study a range of poems in preparation for the unseen poetry essay.

A2 3: Internal Assessment

Internal assessment. Students complete a 2500-word essay. In this essay you will compare and contrast two novels, one of which must have been written in the twenty-first century. You will have the freedom to choose your own novel, focus and question.

How is the subject assessed?

AS1: 2 hour exam	60% of AS (24% of A Level)
AS2: 1 hour exam	40% of AS (16% of A Level)
A21: 1 hour exam	20% of A Level
A22: 1 hour 30 min exam	20% of A Level
A23: Internal assessment	20% of A Level

Who can I get more information from?

Any members of the English Department

GEOGRAPHY

The Geography Department of Strathearn School is dedicated to every student and our motto is.....

"Inspiring the next generation to understand and engage with the world around them."

At A-Level, it is our goal to strive for academic excellence and prepare the world's decision makers of tomorrow with the knowledge and skills that will enable them to contribute positively and sustainably in our changing world.

Specification Overview

A-Level Geography (CCEA) encourages students to explore the world around them and how people interact with it. Geography is the study of the earth: its landscapes, people, places and environments. It encompasses both its physical features and its political and cultural characteristics.

This specification aims to encourage students to:

- ➔ develop a lifelong interest in Geography;
- ➔ draw together different areas of knowledge, skills and understanding;
- ➔ develop higher order thinking skills, for example independent learning, creative thinking and problem-solving, where appropriate;
- ➔ apply their knowledge and skills to real world situations;
- ➔ work with others in groups;
- ➔ carry out research and present their findings in different formats;
- ➔ develop advanced study skills that help them prepare for third level education;
- ➔ provide extended responses and evidence of quality of written communication; and
- ➔ demonstrate through challenging external assessments, that they understand and can apply key concepts.

AS Course (40% of the A Level)

In the AS units, students have the opportunity to study fundamental aspects of both physical and human geography through three core modules. Pupils can normally expect to be taught by two specialist teachers.

AS 1: Physical Geography

In AS 1, students investigate human interaction in fluvial environments, human impact on ecosystems and weather and climate, including global weather issues such as El Niño and hurricanes. This will involve studying a range of local and global case studies.

AS 2: Human Geography

In AS 2, they study aspects of natural population change including the need for fertility policies, planning in rural areas and the challenges posed in urban areas both in MEDCs and LEDCs. Again, local and global case studies will be integrated into all topics.

AS 3: Fieldwork Skills and Techniques in Geography

In this unit students become actively involved in first-hand collecting of geographical data through fieldwork which normally involves a residential based activity at Magilligan Field Centre. Students identify geographical questions and issues, select appropriate sources and methods and establish effective approaches to inquiry in their geographical studies.

There are opportunities for students to use a range of technologies, including GIS.

A2 Course

Students who continue to A2 will study three more modules and will normally be taught by two specialist Geography teachers.

A2 1: Physical Processes, Landforms and Management

Students will explore key themes, including the processes responsible for and challenges posed by earthquakes and volcanoes, the processes shaping our coastline, global climate change and the need for sustainable planning policies to manage global climate change. They will study two options from four available. We will choose from:

Option A: Plate Tectonics: Theory and Outcomes
Option B: Tropical Ecosystems: Nature and Sustainability
Option C: Dynamic Coastal Environments
Option D: Climate Change: Past and Present

A2 2: Processes and Issues in Human Geography

In A2 2, students have the opportunity to study contemporary themes such as cultural geography and the need for sustainability in both settlements and tourism. They will study two options from four available. We will choose from:

Option A: Cultural Geography
Option B: Planning for Sustainable Settlements
Option C: Ethnic Diversity
Option D: Tourism

A2 3: Decision Making in Geography

In A2 3, students investigate real-life issues in a decision-making exercise. This takes the form of a case study whereby students analyse a range of resources, use particular skills and techniques and evaluate the results of analysis. Students are asked to take on a particular role and examine conflicting views.

How is the subject assessed?

All CCEA AS modules are examined at the end of the academic year in which they are taught. External written examinations as follows:

AS 1 – 1 hour 15 minutes (40% of AS, 16% of A-Level)
AS 2 – 1 hour 15 minutes (40% of AS, 16% of A-Level)
AS 3 – 1 hour (20% of AS, 8% of A-Level)

The CCEA A2 modules are examined at the end of the academic year in which they are taught. Details of the external written examinations are as follows:

A2 1 – 1 hour 30 minutes (24% of A-Level)
A2 2 – 1 hour 30 minutes (24% of A-Level)
A2 3 – 1 hour 30 minutes (12% of A-Level)

*Note – there is **no coursework / controlled assessment** element at A-Level. Module AS 3 assesses fieldwork skills but through the final examination process.*

Who can I get more information from?

For further information, contact Mr Stevenson (Head of Geography).

GOVERNMENT & POLITICS

(Please note this subject is at present offered through collaboration, in Bloomfield Collegiate.)

Specification Overview

Government is the act of exercising authority or ruling. Politics is the process by which a community makes and changes the general rules, under which people live. It regulates competition for positions of leadership and helps to resolve conflicts. Government and Politics is a challenging subject which will suit students interested in people, power and fairness in society. Recent developments in our country of Northern Ireland and the challenges facing President Barack Obama in the USA make this a very interesting time to study politics. This is a relevant and stimulating subject designed to develop the students' skills and critical awareness of political ideas, institutions and processes within the United Kingdom, the United States of America and Europe. It provides an excellent foundation for higher education courses in a wide range of subject areas and interesting careers including law, business, finance, government services and, of course, politics itself.

AS Course

AS1 The Government & Politics of Northern Ireland

This module looks at political developments in Northern Ireland since 1994 including the NI Assembly, local Political Parties and the Northern Irish electoral systems.

AS2 The British Political Process

This looks at the UK's system of government – the Prime Minister and Cabinet; House of Commons and House of Lords; the Judiciary; and the European Union.

A2 Course

A2 1 Comparative Government (Option A)

Students will study the American Constitution as well as comparing the Legislatures (Parliament and Congress) and Executives (Prime Minister and Cabinet and President and Cabinet) of the UK and USA.

A2 2 Political Power and Political Ideas (Option B)

Students will study three political ideologies and associated texts: Conservatism and Burke's 'Reflections on the Revolution in France', Liberalism and Mill's 'On Liberty' and Socialism and Marx's 'The Communist Manifesto'.

How is the subject assessed?

Students will follow the CCEA (NI) specification on Government & Politics. There is no coursework in this subject. Assessment is through four written papers (two at AS level at the end of Lower Sixth and two at A2 level at the end of Upper Sixth). Questions are a mixture of short-answer questions and essay questions (the 'stretch and challenge' element of the examination).

Who can I get more information from?

Visit www.ccea.org.uk/government or www.rewardinglearning/org.uk or speak to Mrs Quinn

HISTORY

At A Level students will, through the study of British, Irish and aspects of European history:

- develop their interest in and enthusiasm for history
- understand its value and significance for today's society
- build on their understanding of the past
- improve as effective and independent learners.

A range of skills targeted include:

- the ability to ask relevant and significant questions about the past
- to carry out research and evaluate conclusions
- argue a case and reach substantiated judgements
- to organise and communicate historical understanding in an efficient and convincing way.

Specification Overview

The subject content is organised into four units. There are two assessment units for AS qualification and two at A2. Students should complete the four units for the full A Level.
The AS course provides an opportunity to broaden students' education and encourages them to become reflective thinkers with curious and enquiring minds.

A2 students will extend their learning at AS by evaluating a greater depth and range of more sophisticated content and evidence and by demonstrating a more complex understanding of historical concepts. They will produce responses that have greater depth of analysis and show understanding over a period of time.

AS Course

AS 1: Historical Investigations and Interpretations
Italy and Germany 1815-1871
The study is divided into four sections:
1. Italy 1815–48
2. Italian Unification 1849–70
3. Germany 1815–48
4. German Unification 1849–71

Students analyse the growth of liberalism, nationalism and cultural movements in the period 1815–48, concentrating, in particular, on the causes and reasons for the failure of the revolutions that broke out in Italy and Germany in 1848. Thereafter in the period 1889-1871 the main focus is on the unification process in both countries. Students examine the contribution of individuals such as Bismarck and Cavour, economic developments and the favourable international situation.

AS 2: Conflict and Change in Europe
France 1815-1870:

- The Bourbon Monarchy – a road to disaster?
- The Monarchy of Louis Philippe 1830-1848 – the final effort for compromise.
- The Second Republic and Second Empire 1848-1871 – dictatorship returns.

To generate organised, critical and reflective thinkers with curious and enquiring minds. Weighing up acquired evidence to make balanced and substantiated judgements.

A2 Course

A2 1 : Change Over Time
Ireland under the Union 100 - 1900
Constitutional, economic and cultural perspectives of *Nationalism* across the century.
Economic, political, religious and cultural perspectives of *Unionism* across the century.

Through the study of this unit, students should be given the opportunity to identify and investigate the main themes running through nineteenth century Irish History. The synoptic essay question tests the candidate's ability to assess change and/or development over a 100 year period.

A2 2 : Historical Investigations and Interpretations
Partition of Ireland 1900-1925
Home Rule crisis 1900-1914
Political events 1914-1918
Events in Ireland 1919-1925

As part of the historical enquiry in this module students will critically analyse and substantially evaluate a range of appropriate source material with discrimination. They will appreciate how aspects of the past are interpreted and represented in different ways.

How is the subject assessed?

CCEA
AS1:1 hr 30 min external examination paper
50% of AS [20% of A Level]
Use of source material along with background knowledge.
AS2: 1 hr 30 min external examination paper
50% of AS [20% of A Level]
Choice of questions for brief and extended writing tasks

A2 1: 1 hr external examination paper
1 essay question [20% of A Level]
A2 2: 2 hr 30 min external examination paper
1 question set in the context of an historical enquiry which includes the use of sources and one essay question [40% of A Level]

Where can I get more information from?

This specification addresses and builds upon the broad curriculum objectives for Northern Ireland, England and Wales. In particular, it allows students to: develop as individuals and in their roles as contributors to society, the economy and the environment by investigating aspects of the past and relating them to the world they live in today.

Further information can be found at:
https://successatschool.org/advicedetails/210/Why-Study-History%3F
http://www.ccea.org.uk/history/
http://www.thecompleteuniversityguide.co.uk/courses/history/7-reasons-to-study-history/
http://strathearn.org.uk/studying/history.php

MATHEMATICS

The programme of study for GCE Mathematics builds on work completed in Forms 5 Further Maths GCSE. (There is practically no overlap between the A level and ordinary GCSE courses). This programme provides an excellent foundation for further study of many degrees with Mathematical content. Pupils who have studied GCSE Further Mathematics are best suited to this course but pupils who have achieved high grades in GCSE Mathematics and who have very strong Algebra skills may also wish to consider this as an option. Girls in this position will be offered one catch up class per week to help them bridge the gaps in their knowledge, the Maths Help Desk is available weekly also, but such pupils must expect to devote much of their time to independent study. A level Mathematics is not suitable for pupils with T3/T6 background.

AS Course (Revised Specification)

Pure 1: has a strong emphasis on Algebra skills. Topics include indices, surds, quadratic functions and their graphs, solution of quadratic equations and inequations, polynomials, the Factor and Remainder theorems, curve sketching, graph transformations, co-ordinate geometry and the straight line, and the calculus topic of differentiation and its application to gradients, tangents, normals, maxima and minima, co-ordinate geometry and the circle, sequences including arithmetic and geometric series, trigonometry including sine and cosine rules, radian measure, simple trig identities and trig equations, the laws of logarithms and log equations, the calculus topic of integration and its application to area under a curve and vectors

Mechanics A: topics are kinematics – displacement, velocity and acceleration, s-t and v-t graphs, equations of uniform motion, forces, friction, Newton's Laws

Statistics B: Sampling, Critiquing sampling methods, Locations and dispersion of data, Probability and Relative Frequency, Probability Functions, Discrete and continuous probability distributions, Uniform, Normal and Poisson Distributions

A2 Course (Revised Specification)

Pure 1: Algebra fractions and algebraic division, partial fractions, the modulus function, combinations of graph transformations, parametric equations of curves, binomial series, further trig functions, their graphs and identities, the functions e^x and ln*x*, exponential growth and decay, further differentiation of trig functions and e^x and ln*x*, product and quotient rules, the chain rule, further integration, approximate solution of equations, further trig graphs, double angle formulae, parametric and implicit differentiation, differential equations, integration - using substitution, parts or partial fractions - , volume of revolution, vector theory.

Mechanics A: Variable acceleration in a straight line, projectiles, moments, impulse and momentum

Statistics B: Probability including conditional probability and Venn diagrams, Statistical distribution and Statistical Hypothesis testing

What exams will I take?

Strathearn follow CCEA: AS Pure (1 hour 45mins); AS Mech and Stats (1 hour 15 mins);
A2 Pure (2hours 30 mins); A2 Mech and Stats (1 hour 30 mins)

Who can I get more information from?

- Maths teacher
- CCEA website

FURTHER MATHEMATICS

The GCE Further Maths course again provides challenge and extension for pupils with a greater level of mathematical ability and those likely to pursue a career involving high level Mathematics. Through the completion of this programme we aim to develop in our pupils a love and fascination for Mathematics. It is strongly recommended that pupils who wish to study GCE Further Mathematics have achieved the highest grades at both GCSE Maths and Further Maths.

What will I study?

In Lower 6th pupils will complete AS and A2 courses as described above.

In Upper 6th the revised specification for Further Mathematics will be covered:
AS Pure : Further Algebra and functions, Matrices, Complex numbers and Vectors.
AS Mechanics A: Hooke's LAW, Work and Energy, Power and Circular Motion
AS Statistics C: Sampling, Probability, Statistical Distributions, Bivariate Distributions
A2 Pure: Proof, Complex numbers, Further Calculus, Polar co-ordinates, Hyperbolic Functions, Differential Equations
A2 Mechanics A: Simple Harmonic Motion, damped oscillations, Centre of Mass, Frameworks, Further Circular Motion
A2 Mechanics B: Further Kinematics, Further Centre of Mass, Force Systems in 2 dimensions, Restitution

Coursework / Practical

There is **no** coursework or controlled assessment in GCE Further Mathematics.

What exams will I take?

Strathearn follow CCEA and each of the 6 modules contributes equally to the final grade. Modules are examined by a 1hr 30min paper where calculators are permitted

Who can I get more information from?

- Maths teacher
- CCEA Website

MEDIA STUDIES

Specification Overview

In Media Studies you will learn skills which will allow you to produce your own media texts, such as web sites and sections of magazines. You will be shown how to investigate media texts in order to understand how they have been created. You will also develop an understanding of the influential role played by the media in today's society. The subject will provide you with an enjoyable experience of a wide variety of media texts across the broadcast, e-media and print platforms. You will also be shown how to think critically and work independently to develop your knowledge of the subject.

AS Course

Exam

In preparation for this exam you will learn how to analyse a wide range of media texts.

Non-exam assessment (coursework)

This module will take you through the production process of a media text. You will research the codes and conventions of professionally produced media products and you will have the opportunity to create a media product of your own.

A2 Course

Exams

You will be encouraged to widen your understanding of the media by referring to wider contexts (social, political, historical and economic) which affect media production, distribution and exhibition. You will have the opportunity to write about major contemporary media debates and issues.

Non-exam assessment (coursework)

This section requires you to produce two connected media texts.

How is the subject assessed?

The exam board AQA is responsible for the external assessment of this subject. The AS Level is a separate qualification from the A Level. You will begin the course as an AS student. At a later stage you will decide if you want to keep the AS Level, or if you want to progress to do the full A Level.

AS Level

Exam: 2 hours 30 minutes, 70% of the AS Level.
Non-exam assessment: internally assessed coursework, 30% of the AS Level

A Level

2 written exams: 2 hours each, 35% each.
Non-exam assessment: internally assessed coursework, 30% of the A Level.

Who can I get more information from?

Dr McBride, Ms Erskine, Mr Heaney, Mrs Ingram or Mr Scott

MODERN LANGUAGES: French, Spanish & German

The A level specification aims to make language learning an enjoyable and intellectually stimulating experience, teaching the girls to understand, speak and write a European foreign language and also offering insights into the contemporary culture and the heritage of the relevant countries. Ultimately the girls will have the skills and confidence to communicate confidently in a foreign language, an essential skill in today's multilingual and global society.

Specification Overview

The Modern Language Department will be preparing students for CCEA examinations in French, Spanish and German. The study of an A level language will enable students to achieve oral and written proficiency in French, Spanish or German and will give them a cultural understanding of the countries where the language is spoken. The course is a basis for further study of languages at university but is also an excellent complement to other subjects and a respected academic discipline.

AS Course

You will have two teachers, one who will teach grammar, translation and literature text/film and another who will teach the topics outlined below for listening, reading and speaking. Students practise their oral skills in small groups with the Language Assistant for an additional two periods per week.

Contexts for Learning:

Relationships

Students have the opportunity to understand and explore these issues in French:

- different family structures;
- roles, responsibilities and relationships within families;
- challenges for families;
- intergenerational issues; and
- influences on young people, for example peers, family and friends.

Culture and Lifestyle

- physical well-being, for example diet or exercise;
- risk-taking behaviour, for example smoking, alcohol and drugs or extreme sports;
- dealing with stress and challenges, for example school or examinations;
- hobbies and interests, for example sport or music;
- the arts, film, fashion and design;
- social media and new technology;
- holidays, festivals and tourism.

A2 Course

Young People in Society

Students have the opportunity to understand and explore these issues in French:

- part-time jobs;
- education and employment;
- career planning – aspirations or intentions;
- young people and democracy;
- European citizenship – advantages, disadvantages and opportunities; and
- globalisation – how it affects us and others in the world.

Our Place in a Changing World

- equality/inequality and discrimination/prejudice;
- poverty at home and abroad – causes, consequences and measures to combat it;
- immigration and emigration – causes, benefits and related issues;

- multicultural society and cultural identity – benefits and challenges;
- causes, consequences and resolution of conflict; and sustainable living and environmental issues.

Students will also study a set literary text at A2 level and either a cultural aspect, a historical period or a region for the oral exam.

How is the subject assessed?

AS 1: Speaking

Question 1: Students give a presentation based on an AS level theme related to an aspect of a country or a community where Target Language is spoken. (3 minutes)
Question 2: Conversation (8 minutes) about yourself, home, family, hobbies, future hopes, plans and ambitions with a visiting examiner. Total time: 11 minutes

AS 2: Section A – Listening

Students answer two sets of questions based on two discrete passages recorded on disk.
Recording 1: Students answer in Target Language.
Recording 2: Students answer in English. (40 minutes)

AS 2: Section B – Reading

Question 1: Students answer one set of questions in Target Language based on one passage.
Question 2: Students translate a passage from Target Language into English.(50 minutes)

AS 2: Section C – Use of Language

Questions 1, 2, 3 and 4: students complete a series of short grammatical and lexical exercises.
Question 5: students translate short sentences from English into Target Language.(30 minutes)
Total time: 2 hours

AS 3: Extended Writing

Students write one essay of at least 250 words in Target Language in response to a set film or literary text.
Total time: 1 hour

A2 1: Speaking

Question 1: students summarise and discuss one individual research project based on either: a cultural aspect, a historical period or a region.(6 minutes)
Question 2: Conversation focussing on A2 themes(9 minutes) Total time: 15 minutes

A2 2: Section A – Listening

Students answer two sets of questions based on two passages recorded on disk.
Recording 1: students answer in Target Language.
Recording 2: students answer in English.(40 minutes)

A2 2: Section B – Reading

Students answer two sets of questions based on two passages, a summary exercise and a translation.
Question 1: students complete a gap-filling exercise in Target Language.
Question 2: students answer a set of questions in Target Language based on one passage.
Question 3: students read a passage in Target Language and summarise it in English.
Question 4: students translate a passage from English into Target Language.(1 hour 20 minutes)
Total time: 2 hours

A2 3: Section C – Extended Writing

Students write one essay of at least 300 words in Target Language in response to a set literary text. Total time: 1 hour

Who can I get more information from?

If you are interested in Languages and communication and you enjoy learning about other cultures and ways of life, then this course could be suitable for you. Improving your language skills at AS or A2 can increase opportunities in a number of careers such as Law, Accountancy, Banking, Marketing, Sales, Journalism, the Media, Tourism, PR, the Service Industry etc. Please speak to Mrs Eakin or your language teachers if you have any questions. More information is also available at www.ccea.org.uk/French www.ccea.org.uk/German www.ccea.org.uk/Spanish

MOVING IMAGE ART

(Please note this subject is at present offered through collaboration, in Ashfield Boys'.)

Moving Image Arts is an exciting A level that incorporates two key moving image art forms: *Film* (Live action fictional narrative films); and *Animation* (Rostrum, stop motion and CGI animated narrative films).

Specification Overview

By studying Moving Image Arts you will:

- develop the skills of a screen writer, director, production designer, cinematographer and editor with full creative ownership of your own filmmaking process;
- explore a wide range of moving image styles and movements, broadening your critical understanding and enjoyment of a rich history of film culture;
- learn how to experiment and innovate confidently with digital technologies, applying techniques, skilfully and purposefully; and
- use an impressive range of skills for employment, including working from your own initiative, planning and managing schedules, equipment and human resources, providing leadership and creative direction and demonstrating innovative problem solving abilities and strategic thinking.

GCE Moving Image Arts is made up of two levels: AS and A2. The AS course will make up 40% of your overall A level and the A2 course will make up 60% of the overall A level

AS Course

AS 1: **Realist and Formalist Techniques and the Classical Hollywood Style: Foundation Portfolio; 60% of AS**

You will produce a **Foundation Portfolio** exploring the Classical Hollywood Style, Realism and/or Formalism, including:

• a statement of intention (including a synopsis and an evaluation);
• pre-production materials; and
• one 3–4 minute narrative film sequence (or 1½ – 2 minute sequence if animated) produced in response to stimulus provided by CCEA.

The porfolio will be marked by teachers and moderated by CCEA.

AS 2: Critical Response (EXAM) 40% of AS

You will sit an **Online Examination** (**1 hour 30 minutes)** requiring shorter recall and longer analytical answers in response to unseen film clips taken from the set study areas.

A2 Course

A2 1: Creative Production and Research: Advanced Portfolio 60% of A2

You will produce an **Advanced Portfolio** exploring your own original creative idea and researching the techniques of a chosen film practitioner, including:

• an illustrated essay (including a synopsis and evaluation);
• pre-production materials; and
• one complete 4–7 minute narrative film (or 2–3½ minute film if animated).

A2 2: A2 2 Advanced Critical Response (EXAM) 40% of A2

You will sit an **Online Examination** (**2 hours 15 minutes)** requiring analytical answers in response to unseen film clips taken from the set study areas. You will also draft director's notes in response to an unseen script stimulus.

Who can I get more information from?

*S*peak to Mrs Quinn

MUSIC

Music at Advanced Level involves the development of a wide and interesting range of skills such as communication, self-management, problem-solving, performing under pressure, critical thinking, creativity and dexterity, which are essential for further musical study and highly transferable to other areas of learning. The course builds on the practical and analytical techniques used at GCSE level and also introduces more extended writing and score reading skills.

Specification Overview

At both AS and A2, students compose, perform, develop their aural perception skills and study music history topics.

AS Course

- **Composing:** specific skills are developed at the start of the year before students create a final coursework project.
- **Performing:** it is essential that students are continuing instrumental or vocal lessons and practising regularly for this element. It will not be possible to undertake this component without specialised tuition for the candidate. Grade 6 is the standard required in order for full marks to be possible in the assessment, although Grades 4 and 5 are also acceptable.
- **Aural perception:** general listening skills are developed and a number of set pieces are studied in greater detail.
- **Areas of study:** three topics (orchestral music from 1700 to 1900, musicals and sacred vocal music) are studied in depth. Analysis of written scores is an important new skill.

A2 Course

- **Composing:** skills continue to develop, with a particular emphasis on harmonic techniques. Again, a final coursework project is undertaken.
- **Performing:** lessons and practice must continue in the A2 year. Grade 7 is the required standard for full marks, although Grades 5 and 6 are also acceptable.
- **Aural perception:** again, general skills are developed and a number of new pieces are studied.
- **Areas of study:** the topics for in-depth study are orchestral music in the twentieth century, the mass and secular vocal music. Analysis of written scores continues at a higher level.

How is the subject assessed?

The Music Department currently uses the CCEA specification.
The course is assessed as follows at both AS and A2 levels:

- **Composing:** a coursework project is submitted in March.
- **Performing:** a solo performance is assessed by a visiting external examiner; an assessed discussion is included in this element.
- **Aural perception:** this is assessed in a listening examination.
- **Areas of study:** this is assessed in a written examination which includes score-reading questions and extended writing.

Who can I get more information from?

Please contact Ms Kimber for further information.

NUTRITION & FOOD SCIENCE

Specification Overview

Nutrition and Food Science are high in the public's perception and there could not be a better time to develop knowledge and understanding of this subject, given the current global and national food issues. Each day, food choices affect health − how people feel today, tomorrow and in the future. Good nutrition is an important part of leading a healthy lifestyle and can help to reduce the risk of chronic illness and promote overall health.

Nutrition is a fast-moving discipline that focuses on understanding the role of diet in maintaining a healthy human body and preventing disease.

There are many career opportunities within this field of work as scientific knowledge and research develops. The subject can open up a range of possibilities in the world of work, both at home and worldwide, with opportunities for further and higher education.

AS Course

In the AS units, students will explore:

Unit AS 1: Principles of Nutrition

This unit requires the study of macronutrients and micronutrients and other dietary constituents. Nutritional requirements and current dietary recommendations across the life span are also studied.

Unit AS 2: Diet, Lifestyle and Health

This unit requires the study of current research in relation to diet, lifestyle and health. Students will have the opportunity to explore dietary-related disorders and how they impact on health.

A2 Course

Students who continue to A2 will choose between Option 1 and Option 2 as their area of study:
Either:

Unit A2 1 Option 1: Food Security and Sustainability

This unit requires the study of consumer behaviour in relation to food purchasing decisions. Students will develop a critical appreciation of the issues affecting our food supply, how they impact upon the environment, and the ethical implications of their choices.

Or:

Unit A2 1 Option 2: Food Safety and Quality

This unit requires the study of issues related to securing a safe food supply from the primary producer to the consumer. The importance of food safety and quality will be explored as well as the steps taken to ensure safe food provision.

Unit A2 2: Research Project

For this unit all students will select an area of personal interest to study for a research project. The report should not exceed 4000 words. The student should choose their research area from AS 1, AS 2 or A2 1. This will provide the opportunity to develop a wide range of transferable skills and capabilities relevant to higher education and the world of work such as critical and creative thinking, decision-making, problem-solving, designing a research tool, analytical skills and target-setting.

The project will require the student to:

- identify and discuss issues associated with their chosen research area;
- select and interpret appropriate and relevant information;
- analyse information and judge its relevance to their chosen research area;
- plan and conduct primary research;
- present and interpret findings from research they have undertaken;
- draw conclusions using reasoned arguments; and
- make recommendations for future study.

How is the subject assessed?

The examination board used is CCEA.

- There are four assessment units: three externally assessed and one internally assessed.
- Students will take a written exam in the following units:

AS 1: <u>Principles of Nutrition</u> – One written examination that includes both short answer and extended writing questions (1 hour 30mins)

AS 2: <u>Diet, Lifestyle and Health</u> - One written examination that includes both short answer and extended writing questions (1 hour 30mins)

A2 1: Option 1: <u>Food Security and Sustainability</u> or Option 2: <u>Food Safety and Quality.</u>

For either option **–** one written examination that includes both structured and extended writing questions (2 hours and 30mins).

Who can I get more information form?

Additional information on Home Economics provision at Strathearn can be obtained from Mrs Blayney, Head of Department.

Further details on specification content are available from any teacher in the Home Economics Department and also on the CCEA website.

PHYSICAL EDUCATION

(Please note this subject is at present offered through collaboration, in Bloomfield Collegiate.)

INTRODUCTION: WJEC AS/A Level

Pupils must be aware of the 40% practical content which requires them to be highly competent in two roles, at least one as a performer and an adopted role. In addition pupils must be participating in sporting activity on a regular basis at a high level in a competitive structured setting

SPECIFICATION - WJEC

AS Physical Education consists of two units. One examination based unit and one practical based unit – 40% of A Level qualification.

Unit 1 Exploring physical education (60% of AS qualification)
Unit 2 Improving personal performance in physical education (40% of AS qualification)

A2 Physical Education consists of two units. One examination based unit and one practical based unit – 60% of A Level qualification.

Unit 3 Evaluating physical education 36% of qualification)
Unit 4 Refining personal performance in physical education (24% of qualification)

EXAMINATION SUMMARY

UNIT 1 Exploring Physical Education: Externally assessed by a 1 3/4 hour written paper exploring many topics including exercise physiology, performance, analysis and training, sport psychology, skill acquisition and sport and society. The specification enables learners to understand the interrelationships between the areas of study and apply them in a variety of contexts.

UNIT 2 Improving Personal Performance in Physical Education: Coursework - candidates are assessed on their ability in a practical performance in **one** activity as a player/performer and as a coach **or** official**.** Pupil also complete a Personal Performance Profile which is an analysis of their own performance in their chosen activity.

UNIT 3 Evaluating Physical Education: Externally assessed by a 2 hour written paper exploring many topics including exercise physiology, performance, analysis and training, sport psychology, skill acquisition and sport and society

UNIT 4 Refining Personal Performance in Physical Education: Coursework - candidates are assessed in a practical performance in one activity as a player/performer, coach or official. Pupils also must complete an investigative research project which should help the learner to improve personal performance as a player/performer, coach or official.

CAREER PATHWAYS

Very diverse – Some examples include – Teacher, Instructor, Trainer, Sports and Events Marketing, Sports Journalism, Sports Medicine, Fitness and Lifestyle Courses, Health Promotion, Sports Development and Coaching courses, Public Relations, Marketing and Sales.

PHYSICS

By studying physics you will gain a better understanding of how the world works. The aim of A Level physics is to develop the student's interest in and enthusiasm for physics, including developing an interest in further study and careers in the subject.

Specification Overview

AS Physics is comprised of 3 modules. AS 1: Forces, Energy and Electricity, AS 2: Waves, Photons and Astronomy, AS 3: Practical Techniques and Data Analysis.
A2 Physics comprises 3 modules. A2 1: Deformation of Solids, Thermal Physics, Circular Motion, Oscillations and Atomic and Nuclear Physics, A2 2: Fields, Capacitors and Particle Physics A2 3: Practical Techniques and Data Analysis.

AS Course

Module 1: This unit teaches students to deal with physical quantities and scalars and vectors, which are required in all branches of this subject. Students will build on their knowledge and understanding of Newtonian mechanics and electricity to explain many economic and social applications of physics.

Module 2: The ideas about waves in this topic provide vital links to the study of light and how defective vision is corrected. The section on photons introduces the quantum theory and the concept of wave-particle duality. A section on Astronomy is now included.

Module 3: In this unit students will acquire essential practical techniques, including planning, implementing, analysis, evaluation design and communication. Formal preparation for the practical examination begins here but there are many opportunities for practical work in modules 1 and 2. Our resources allow students to carry out many experiments individually.

A2 Course

Module 1: The work on circular motion and oscillations extends the mechanics foundation included in AS. Thermal physics connects the properties of gases to the basic principles of kinetic theory. The section on atomic and nuclear physics has important social and economic applications and leads to an introduction to particle physics.

Module 2: This is a fundamental area of physics which has numerous applications in everyday life. Students will study action-at-a-distance forces that arise between bodies that are separated from each other. An idea of the work carried out at CERN is studied.

Module 3: In this unit, students will build on the essential practical techniques that they acquired in AS module 3 Independent study is required to support the work carried out in the classroom. The pupils are provided with an A2 CCEA textbook to assist them with this.

How is the subject assessed?

Students are assessed by regular homework and tests. There is a mock examination for each module. CCEA assess each of the AS and A2 modules 1 and 2 in a written examination. Module 3 at AS and A2 is assessed in a practical examination and a Data Analysis examination.
There is no coursework in A level physics. The A2 module examinations require knowledge of the AS specification.

Who can I get more information from?

Dr. K. Ross (Teacher in charge of physics)

RELIGIOUS STUDIES

AS/A2 Religious Studies aims to encourage students to:

- develop higher order thinking skills, for example analysis, evaluation, independent learning, critical thinking and problem-solving;
- reflect on and develop their own values, opinions and attitudes in the light of their learning;
- develop the ability to make responsible judgements on significant textual, theological, philosophical and moral issues;
- develop advanced study skills that help them prepare for third level education and the world of work.

Why Study Religious Studies?

Religious Studies encourages pupils to develop a wide range of skills and personal qualities including critical thinking, extended writing, empathy, enquiry and scholarly debate. Pupils who have studied Religious Studies at A-level have gone on to undertake a wide range of undergraduate courses including law, primary/secondary education, nursing, psychology and business management.

Specification Overview

Students will study 2 units at AS level and a further 2 units at A2 as follows:

AS Course

AS 1 – An Introduction to the Gospel of Luke

This unit explores the content of the Gospel of Luke, starting with an understanding of how and why the Gospel was written. It explores key narratives from the Gospel taking into account the religious and political context of Palestine at the time of Jesus and the Roman world at the time of Luke's writing. Students will consider key religious themes (such as Salvation History, Discipleship and the Kingdom of God) within the context of contemporary scholarship.

AS 4 – The Origins and Development of the Early Christian Church to AD 325

This unit explores the beginning, growth and development of the Christian Church in the first three centuries. Students will consider the reasons for the expansion of the Church within the Roman Empire, the causes and course of Roman persecution of the Church, the development of early Christian doctrine and practice and the influence of the Emperor Constantine. Students will engage with primary and secondary historical sources alongside contemporary scholarship.

A2 Course

A2 1 – Themes in the Synoptic Gospels

This unit builds on the study of Luke's Gospel completed at AS level, but widens to include the other Synoptic Gospels of Matthew and Mark. Students examine issues surrounding the authority of religious texts, fundamentalism, liberalism, religious leadership and diversity within religious communities.

A2 4 – Themes in the Early Church and the Church Today

In this unit students will consider the challenge of heresy in the early Church period alongside the development of early Christian literature and Church government. Students will explore the relationship between religious faith and state authority, making consideration of historical and contemporary examples, including the role of religion in issues of reconciliation.

How is the subject assessed?

The progress of students will be assessed by their teachers through regular essays.

At the end of each year of study (AS and A2) students will sit two written examinations (one on each of the units). These examinations will take the form of extended essay responses.

The examining board for this course of study is CCEA.

Where can I get more information?

Mr A. Anderson (Head of Religious Studies)

Technology and Design

Specification Overview

This course appeals to students interested in engineering, design in general or product design and development in particular. In the course, students will study technology and design in a range of different contexts and scenarios, ranging from the home to community and business through to the world of industry. This course appeals to those who have an enquiring mind, a desire to solve problems and a sense of how the modern world deals with changing trends and demands.

AS Course

AS unit 1- Product Design and Systems and Control: In this unit you will learn about product design including materials and their processing with an area of systems and control you will also learn about electronic systems and their uses.

AS unit 2-Coursework: Product Development: In this unit you will investigate and analyse an existing product, re-design, manufacture, test and evaluate the product. You will produce a 3 dimensional model or proto type which represents the practical outcome of the product analysis and development. You will also produce a folio containing both written and graphical information.

A2 Course

A2 1: Systems and Control: This unit is an in depth study of Systems and Control. You will have the opportunity to further the knowledge and understanding which you have gained in the electronic and microelectronic systems sections in AS unit1.

A2 2:Coursework: Product – System, Design and Manufacture: In this unit you will manufacture a technological product or system which provides a solution to an identified problem or need. You will also produce a folio containing both written and graphical information.

How is the subject assessed?

AS 1:Product Design and Systems and Control- Worth 50% of AS
Paper 1: Common Core (1 hour) Paper 2: Electronic Systems (1 hour)

AS 2: Coursework: Product Development-. Worth 50% of AS
Internally Assessed and externally moderated design portfolio and manufactured product.

A2 1: Systems and Control: Worth 50% of A2
Paper: Electronic and Microelectronic Systems (2 hours)

A2 2:Coursework: Product – System, Design and Manufacture: Worth 50% of A2
Internally Assessed and externally moderated design portfolio and manufactured product.

Who can I get more information from?

Mr Atkinson/Miss Newburn

UK Labour market Information:
From the Careers of the Future Publication (Dec 2014)

We have included the following information which we hope you may find useful.

A full copy of the document can be viewed on:
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/391911/15.01.05._UKCES_Career_Brochure_V13_reduced.pdf

About the data

For each job we have included an 'at a glance' panel that details vital statistics about each job. We have also included a table of background data on the 100 jobs.

- How many work in this job? The number of jobs, employment or size in 2012, the base year of the 2012-2022 employment projections.
- Job openings 2012 – 22: The projected number of job openings that we expect to see taking into account net growth/decline in the number but also the projected number of workers leaving the occupation due to retirement and other reasons.
- Employment change 2012-22: The projected net change in the number of jobs from 2012 to 2022.
- Starting salary: The estimated salary level that one can expect to receive when starting a job. The information is taken from the National Careers Service website and is **intended as a guideline only.**
- Average gross salary: For the job profiles this is the median annual gross pay for the job earned by employees, taken from the 2013 results of the Annual Survey of Hours and Earnings, published by the Office for National Statistics. For the table of background data the mean figure is used.
- Weekly gross pay: The median weekly gross pay for the job earned by employees, source as per average gross salary figure.
- Average hours (full time): The mean weekly paid hours worked by employees in full-time jobs, source as per average gross salary figure. This figure does not include unpaid overtime, which is a common feature of some jobs.

Background Data

Title	Current Employment (000s)	Projected net change in employment (000s)	Projected job openings (000s)	Mean Earnings (£)*
Actuaries, economists and statisticians	35	7	22	61,584
Advertising accounts managers and creative directors	33	7	21	37,636
Air-conditioning and refrigeration engineers	17	-1	4	28,770
Aircraft maintenance and related trades	33	-3	8	34,511
Aircraft pilots and flight engineers	18	3	10	78,482
Architects	57	11	36	44,024
Arts officers, producers and directors	63	9	36	35,825
Barristers and judges	26	5	17	45,571
Biological scientists and biochemists	87	18	46	37,627
Boat and ship builders and repairers	14	-1	3	28,032
Book-keepers, payroll managers and wages clerks	446	-25	161	20,646
Brokers	47	8	26	37,139
Business and financial project management professionals	217	43	137	50,038
Business sales executives	163	28	90	32,880
Buyers and procurement officers	66	11	36	31,454
Care workers and home carers	729	196	530	12,804
Carpenters and joiners	235	15	94	24,029
Chartered and certified accountants	221	44	140	37,850
Chartered surveyors	71	14	45	35,480
Chemical scientists	32	7	17	35,492
Childminders and related occupations	125	34	91	12,949
Civil engineers	81	17	43	38,236
Cleaners and domestics	594	-9	206	8,067
Conservation professionals	16	3	8	28,956
Construction and building trades supervisors	60	4	24	33,036
Construction project managers and related professionals	64	13	41	42,066
Customer service managers and supervisors	155	32	87	28,718
Dental practitioners	40	10	27	53,567
Design and development engineers	76	15	40	39,890
Educational support assistants	132	36	96	11,569
Electrical engineers	47	10	25	44,439
Electricians and electrical fitters	297	-23	70	30,055
Electronics engineers	40	8	21	36,751
Elementary storage occupations	429	-7	149	18,430
Environment professionals	40	8	21	33,220
Estimators, valuers and assessors	71	12	39	32,185
Farmers	162	-16	66	24,520
Finance and investment analysts and advisers	188	32	104	46,797
Financial accounts managers	133	23	74	40,952
Financial and accounting technicians	31	5	17	44,038
Gardeners and landscape gardeners	172	-17	70	17,595
Hairdressers and barbers	192	16	108	10,174
Health and safety officers	51	9	28	33,445
Higher education teaching professionals	135	14	73	39,076
Human resources and industrial relations officers	132	23	73	28,999
Insurance underwriters	34	6	19	40,723
IT business analysts, architects and systems designers	113	23	60	43,848
IT engineers	39	-3	9	27,064
IT operations technicians	111	10	45	29,815
IT project and programme managers	72	15	38	49,128
IT specialist managers	210	43	111	48,384

Title	Current Employment (000s)	Projected net change in employment (000s)	Projected job openings (000s)	Mean Earnings (£)*
Journalists, newspaper and periodical editors	74	15	47	35,117
Large goods vehicle drivers	319	-1	136	25,602
Legal associate professionals	66	11	37	29,492
Management consultants and business analysts	174	34	110	42,811
Marketing associate professionals	168	29	93	30,051
Mechanical engineers	94	19	50	44,176
Medical practitioners	253	63	172	70,648
Medical radiographers	30	7	20	31,505
Metal machining setters and setter-operators	64	-5	15	27,223
Metal working production and maintenance fitters	214	-16	50	29,173
Midwives	44	11	30	30,020
NCOs and other ranks	76	-7	12	35,082
Nursery nurses and assistants	194	52	141	11,580
Nurses	628	157	427	26,158
Nursing auxiliaries and assistants	314	84	228	15,618
Pharmacists	58	15	40	36,739
Physical scientists	25	5	13	52,470
Physiotherapists	51	13	35	27,814
Pipe fitters	11	-1	3	36,637
Plumbers and heating and ventilating engineers	181	12	73	27,832
Police officers	193	-17	31	39,346
Precision instrument makers and repairers	30	-2	7	29,334
Primary and nursery education teaching professionals	409	41	222	29,268
Production and process engineers	53	11	28	38,475
Programmers and software development professionals	277	56	146	40,165
Psychologists	33	8	22	34,174
Public services associate professionals	98	17	54	28,430
Quality assurance and regulatory professionals	77	15	48	42,898
Quantity surveyors	43	8	27	38,855
Research and development managers	42	9	22	49,590
Sales accounts and business development managers	436	74	241	47,862
Secondary education teaching professionals	420	42	228	33,407
Senior professionals of educational establishments	103	10	56	49,495
Ship and hovercraft officers	17	3	9	44,283
Skilled metal, electrical and electronic trades supervisors	47	-4	11	35,316
Social and humanities scientists	17	3	9	29,984
Social workers	102	20	65	28,182
Solicitors	135	27	85	44,787
Taxation experts	29	5	16	45,360
Taxi and cab drivers and chauffeurs	230	-1	98	16,416
Teaching assistants	364	98	265	11,796
Telecommunications engineers	68	-5	16	32,253
Train and tram drivers	29	0	12	45,489
Van drivers	213	-1	90	18,744
Vehicle technicians, mechanics and electricians	231	-18	54	25,238
Veterinarians	18	5	12	32,374
Vocational and industrial trainers and instructors	167	28	92	26,490
Web design and development professionals	70	14	37	29,870
Welding trades	70	-5	17	26,735