



S4 Handbook

For entry September 2023

**STRONGER
TOGETHER**

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Welcome to S4

Dear Parents

The two years of preparation for GCSE examinations are the most significant and important to date, and GCSE grades are a key element in admission to university. Indeed, they will be an important component of objective evidence of academic potential available to universities at the normal point of application in the Upper Sixth year.

At Birkdale we always try to answer the question "What is in the best interest of individuals?", not forgetting that the ultimate academic goal is to prepare members of the school for university and beyond.

I hope you will find this handbook helpful as you discuss with your child the choices which they have to make. Staff are very ready to help in this, and the Parents Evening in March is designed to give any guidance necessary.

For School rules and many other points, please refer to the "General Information for Parents" booklet, a copy of which you should already have. A copy is available on the school's website and parent portal.

You will know of the emphasis in the school on the education of the whole person, and I hope you will find details of the General Studies and Outdoor Pursuits programmes of interest. The S4 camp is part of this wider plan, in which opportunities are given for pupils to develop as individuals. This programme of Outdoor Pursuits is an integral part of the curriculum at Birkdale, and all pupils are expected to participate.

Peter Harris
Head



Birkdale's S4 & S5 Curriculum

We believe in ensuring that all our pupils study a broad and balanced curriculum. To this end, the S4 and S5 curriculum has two parts to it - a compulsory core and a choice of optional subjects.

COMPULSORY (CORE) SUBJECTS

All pupils study the following subjects to GCSE:

- English Language
- English Literature
- Mathematics
- Science
(all pupils will initially study separate Sciences; some may move to GCSE Trilogy Science in S5 (two GCSEs))
- One of the Humanities subjects
(Classical Civilisation, Geography, History or Religious Education)
- A Modern Foreign Language
(French, German or Spanish)

In addition, the following non-examined subjects are taken:

- General Studies, including Careers, Economic Awareness, Health Education, Religious Education, Substance Abuse and Political Systems.
- Physical Education
- Games

OPTIONAL SUBJECTS

In addition pupils may select any **two** of the following subjects to study to GCSE:

- Art
- Classical Civilisation
- Computer Science
- Design & Technology (Electronic Products) or Design & Technology (Resistant Materials)
- Drama
- Geography

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- History
- Latin
- Music
- Physical Education
- Religious Studies
- Second Foreign Language (French, German or Spanish)
- Additional Support

The option subjects are arranged into blocks to accommodate as many of the wishes of the particular year-group as possible. Nine or ten subjects are thus studied by pupils to GCSE. Additionally, pupils who have studied Greek in S3 may continue this lunchtime study to GCSE.

CHOOSING THE OPTIONAL SUBJECTS

During their third year at Birkdale, pupils must decide which of the optional subjects they will study in S4 and S5. These are very important decisions, which can affect career choice at a later stage, and therefore require some serious thought. There is much advice available through published sources and from subject teachers, form tutors and senior members of staff. The following suggestions may be useful as general pointers:

1. Most pupils will want to study subjects which they enjoy.
2. Most will opt for subjects which they are good at.
3. Pupils should not generally allow themselves to be influenced by:
 - a) whether they like or dislike their present teacher in a particular subject. They might have a different teacher in the subject next year.
 - b) what their friends are deciding, since their interests and plans for the future may be quite different.
4. Pupils should think carefully about the effect that the choices they make now will have upon their freedom to choose a career later on. It is often sensible at this stage to keep as many career options open as possible.
5. Pupils should strike a sensible balance between the Humanities (subjects especially concerned with human development), Languages and Creative subjects.
6. Pupils should not be too heavily swayed by parental opinion.

TIMETABLE FOR S3 TO S4 OPTION CHOICES

Friday 20 January	Handbook sent home with pupils
Thursday 26 January	Information Evening
Tuesday 31 January	Straw Poll – for timetabling purposes, pupils are asked to indicate which subjects they are considering studying
6 – 24 February	Form Tutors conduct preliminary interviews with pupils
Thursday 2 March	Parents Evening
6 – 24 March	Each pupil has an interview with Mr Morton (Senior Master, Middle School) or Mr Becks (Deputy Head - Academic)
w/b 27 March	Letter sent home to parents giving details of their child's proposed option choice
By Friday 28 April	Parents either agree with choices or arrange an interview with Mr Morton or Mr Becks
June	School Examinations



Academic Work

Class work, homework and coursework are all essential elements of the education programme at Birkdale. We monitor progress by assessing homework and class work and report to parents and pupils on grade cards, at Parents Evenings and in end-of-term reports. There are examinations at the end of each school year.

GRADE CARDS

Grades are issued once or twice per term on the dates indicated in the school calendar. Grades are given for attainment and effort. High effort grades can be achieved by any pupil; attainment grades relate to achievement. As pupils move into S4 and S5 the grades begin to reflect the GCSE standard that is being achieved.

A summary of the effort grade criteria is given below:

EFFORT

Grade	Comment
O	Outstanding Pupil gives of their best all the time.
V	Very Good Pupil does all they should and more.
G	Good Concentrates and works well most of the time.
S	Satisfactory Applies sufficient effort to complete work.
U	Unsatisfactory Pupil is seriously underachieving.

Pupils are interviewed by Form Tutors and/or Senior Staff after each set of grades and targets are set for improvement where necessary. U grades for effort are treated seriously and a range of sanctions, which includes a daily report card, is used to focus attention on a pupil's making improvements.

HOMEWORK

Homework is set as indicated in the homework timetable issued at the start of the school year. Some teachers may set a piece of work to be completed over a period of time.

All homework should be recorded in the pupil planner. These are issued to all pupils.

If homework is incomplete, late or unsatisfactory then the following sanctions may be employed:

1. Repetition of unsatisfactory work.
2. Detention after school on a Tuesday evening.

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The Wider Curriculum

Staff can also choose to give an academic detention at lunchtime.

The importance of homework cannot be exaggerated; pupils are learning the patterns of self-discipline which will serve them well in A levels, at university and employment. Parents can help by:

1. Checking the pupil planner. In S1 and S2 pupils are asked to obtain a parent's signature each week. This measure is relaxed in later years but parents are encouraged to maintain an interest in the work set; pupils who find organisation difficult may be asked to re-adopt the "sign each week" procedure.
2. Supporting the disciplinary procedures applied to pupils who fall below the standards expected.

REPORTS & PARENTS EVENINGS

There is a written report at the end of each term, unless there has been a Parents Evening during the course of the term. The current programme of reports and Parents Evenings is:

	Christmas	Easter	Summer
S1	Parents Evening	Parents Evening	Report
S2	Report	Grades	Parents Evening
S3	Grades	Parents Evening	Report
S4	Parents Evening	Report	Parents Evening
S5	Report	Parents Evening	
L6	Parents Evening	Report	Parents Evening
U6	Parents Evening	Parents Evening	

Parents concerned about the progress of their child may contact their Form Tutor or the Senior Master responsible for their child at any stage. This especially applies after a report from the School.

ACADEMIC STUDY TRIPS

A number of trips are regularly arranged by certain departments to enrich and enhance the work studied at GCSE. All of these trips happen during non-school time, and some form part of a subject's coursework. A list of trips can be found on the school's website.

GENERAL STUDIES

The General Studies course is a modular course which takes place in S4 and aims to provide information/skills relevant to coping with, and taking part in, school life and contemporary society. There are six modules in the course with the staff involved providing a balanced programme of units. The subjects studied include Economic Awareness, Health Education, Religious Education, Careers, Substance Abuse and Political Systems.

ECONOMIC AWARENESS

Young people's experiences of the economic system emerge via many activities such as shopping, working, selling and allocating time and resources. Some experience this more effectively than others. The idea of this course is to give pupils the opportunity and knowledge to operate in the economic system with more confidence, competence and understanding.

We investigate the basic roles of economic aspects with the wider economy:

- Consumer
- Product
- Citizen

Economic Awareness		
Young Person as a Consumer	Young Person as a Producer	Young Person as a Citizen
eg Demand Banking Budgeting Credit and Debt	eg Supply Business Organisation Business Finance	eg Taxes and Public Spending

We explore these themes via business games and role-play.

HEALTH EDUCATION

All aspects of Health Education are set within a clear, moral framework, rooted in Biblical teaching. Therefore, the emphasis that the School gives to the general care and well-being of pupils in fostering their social skills, self-esteem and sense of responsibility is based within the overall Christian ethos of the School.

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Our Health Education...

- I. presents facts in an objective and balanced manner so as to enable pupils to comprehend the range of sexual attitudes and behaviour in present day society.
- II. teaches about the physical aspects of sexual behaviour, and this teaching is set within a clear moral framework in which pupils are encouraged to consider the importance of self-restraint, dignity, respect for themselves and for others. They are helped to recognise the physical, emotional and moral risk of casual and promiscuous sexual behaviour.
- III. helps pupils to appreciate the benefits of stable married and family life, and the responsibilities of parenthood.
- IV. recognises that it is required by law that young people are made aware of the nature of marriage and its importance for family life and the raising of children.

A closely integrated and cohesive course is taught including the following units:

Lifestyle and health issues. After a revision of earlier work – sex organs, puberty, sexual intercourse, the menstrual cycle, pregnancy and birth – pupils are told about sex and its consequences before moving on to the problem of sexually transmitted diseases:

Sex and consequences: legal aspects of sex
high-risk sex
sex before marriage
personal relationships
STIs and their spread
unwanted pregnancy
contraception

An introduction to STIs: what STIs are
what HIV is and how the virus is spread
about treatments, cures and vaccines for STIs
about body fluids – how they mix

Spread of STIs: sections of the community at risk
avoiding AIDS, Chlamydia, HPV and other
common sexually transmitted infections

As part of this course the pupils will also be taught about healthy living. The positive ways of achieving this goal – exercise, the right diet, low blood pressure, caring for one's body etc – are contrasted with the abuse of the body – smoking, excess alcohol, drugs and drug abuse – in a programme which involves practical Biology, videos, discussion and contributions from outside speakers.

RELIGIOUS EDUCATION

This is an enquiry into certain philosophical themes significant to either the Philosophy of Religion or Religious Ethics.

Philosophy 1: 'Values'

A course examining the different values held by people in our society, contrasting specifically Christian and non-Christian values and attitudes towards others. Areas covered include:

1. The Value of Human Life
2. Materialism
3. Power
4. Gender

Philosophy 2: 'Questioning Belief 1'

1. The Psychology of Perception – how belief is necessary for knowledge.
2. Naturally Good or Naturally Evil – looking at beliefs about human behaviour and their consequences.
3. Sacrifice – the beliefs that lead to self-sacrifice.

Philosophy 3: 'Philosophy of Science'

This course seeks to challenge assumptions about the nature of the Scientific Quest. We deal with:

1. Progress in Science
2. Cosmology
3. Evolution
4. Philosophy of Knowledge

Philosophy 4: 'Questioning Belief 2'

1. Objectification – the consequences of treating humans as objects. War; Human Rights and the 3rd World
2. Free Will or Determinism? – models of human nature and their ethical consequences.
3. Utilitarianism – can we ever sacrifice some for the majority?

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CAREERS

At the start of our formal careers programme, many pupils still fall into one of two categories. Either they have been set on a specific career from an early age, or they have simply no idea for which occupation to steer. Our aim in S4 is to bring them somewhere between these two extremes. Pupils are helped to identify their strengths and abilities, match these against a wide range of opportunities and draw up a short-list of suitable careers.

Clearly the computer is a powerful tool here and each pupil answers detailed interactive questionnaires, which suggest an initial selection of occupations in S4 and also in S5 possible university courses, with several screens of information on each. These and other ideas can be further researched in school with help from the careers team.

Personal advice and guidance is also crucial. We aim to maintain regular discussion of current career goals between parents, staff and your child. Pupils put together the results of their research each year in an action plan. These form the basis of individual discussions with the Careers team, their Form Tutor and a copy is taken home to parents. In S5, Senior Staff also interview each pupil to help to ensure the most appropriate A level choices are made. Pupils for whom A levels may not be the best way forward have the opportunity of an interview with the school's Careers Adviser to consider alternative options.

In March, we hold our biennial Careers Convention in partnership with Sheffield Girls' to which parents and pupils are invited to talk with representatives of a large number of professions, universities and colleges. Through this and work experience placements in the Lower Sixth form, links have been forged with many local companies and establishments and pupils are encouraged to use these contacts or their own to arrange workplace observation in the holidays.

Career choice is a long process. We encourage your child to continue to research. The computer software is always available throughout the school network. Careers library books can be borrowed on overnight loan and 1-1 appointments with our school Careers Adviser are widely available. Parents are welcome to come in to discuss their child's career plans at any point.

SUBSTANCE ABUSE AND CAREFUL USE OF THE INTERNET

In this module we look at the use and misuse of alcohol, tobacco and illegal drugs including "legal highs". We also think about the dangers of misuse of social media and the internet.

POLITICAL SYSTEMS

The aim of the module is to raise awareness of the democratic system of government operating in the UK today. Each pupil should develop a greater understanding of local government, Westminster, devolved power and the EU through discussion work.

OUTDOOR EDUCATION

One of the significant features of S4 is the residential which takes place in the Summer term. The trip is an integral part of the outdoor education programme and seeks to provide opportunities for character development and leadership training outside the classroom. Alongside skills development through activities, such as ghyll scrambling, kayaking and mountain adventures, it is also an important staging post in our students' social development, learning to live cooperatively in a residential setting.

There are often additional activities available to participate in that are on offer to those that are interested. In previous years students have engaged well with an adventure photography competition, with the reward of a day out in the Peak District working with a professional photographer. In addition our motivated staff team plan extra adventures like a Summer holiday mountain biking trip to Scotland. Due to limited spaces on these adventures, students will need to keep an eye out, as and when they arise.

Many students in S4 choose to join in with the Silver Duke of Edinburgh Award scheme, which is on offer during the S4 year, with expeditions in the Easter and Summer terms. The Silver award aims to take students to either the North York Moors or the Yorkshire Dales as a way of expanding their knowledge of the wonderful landscapes of the United Kingdom and encouraging a sense of exploration and adventure.

Finally, in S4 our students are able to join the rock climbing team, as a Games option. A longstanding Birkdale sporting activity, synonymous with our city, we aim to develop the skills of of a climber and embed the culture of climbing into those that join the team. It is much more than a sport and is a grounding activity, which opens up an array of new horizons.

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PHYSICAL EDUCATION AND GAMES

In accordance with the National Curriculum, pupils in S4 and S5 tackle more complex and demanding activities whereby they can apply their knowledge of skills, techniques and cognitive understanding in working towards effective performance.

Pupils in S4 continue to experience a variety of activities as in previous years, along with the introduction of new areas of sport and recreation. They will participate in the team games of Rugby, Football, Cricket, Hockey, Softball, Basketball and Volleyball. They will also participate in the individual activities of Cross-Country, Athletics, Badminton, Health-Related fitness and Table Tennis.

In S5 pupils will participate in Basketball, Volleyball, Health-Related Fitness, and Badminton during their compulsory Physical Education lessons. In addition the S5 and Sixth Form Games afternoon affords those pupils not selected for Team Squads the opportunity to participate in Hockey, Climbing, Golf, Weight-Training, Swimming, Tennis, Badminton and Basketball, dependent on staff supervision/parental consent.

Squad members are expected to attend all practice sessions and matches.

The Senior School Physical Education programme is designed not only to teach more advanced techniques and strategies in the pupil's chosen activity, but to encourage pupils to acquire the necessary skills and enthusiasm to pursue their sport on leaving school.

The extra-curricular programme is viewed as an important extension of the departmental curricular programme. A comprehensive and varied range of activities and team practices are provided and these are intended to develop those skills, attitudes and behavioural patterns necessary for both individual and team success. School teams compete against other schools in Rugby, Football, Cricket, Basketball, Tennis, Cross-Country and Hockey. There are also clubs for Badminton, Weight/Fitness-Training and Table Tennis.

Inter-House Competitions are held in all the major and minor school sports and pupils are expected to play a full and active part in representing their Houses.



Details of GCSE Courses





GCSE COURSES

ART AND DESIGN (Fine Art)

Qualification Overview

AQA Art and Design (Fine Art), specification code: 8202/C and 8202/X

- **Component One - NEA/Coursework**

- ⇒ Component one is worth 60%.
- ⇒ This work is done over four terms.
- ⇒ Two projects are undertaken. One project is done with a foundational beginning studying a series of material techniques leading to a final outcome. The second project is done in the form of a mock exam in the first term of the S5 year between September and December.
- ⇒ The work is internally marked and then moderated by an external AQA moderator.

- **Component Two - Examination**

- ⇒ Component two is an externally set assignment (10 hours).
- ⇒ Component two is worth 40%.
- ⇒ Students choose one of 7 questions as a starting point for the exam.
- ⇒ The work is internally marked and then moderated by an external AQA moderator.

- The students are taken to London at the beginning of S5 and they visit the National Gallery, The Tate Modern and the Tate Britain. This acts both as a stimulus for their impending mock exam and looking retrospectively at subjects they've dealt with in their first project.

Content and Skills

This course is designed to include two pieces of coursework and one exam project. The second piece of coursework is in the form of a mock exam. This should fully prepare the pupils for the external exam which begins in the following term. The demands and expectations of the course are immediately made known to the students through the Art pages in the student sketchbooks. The Assessment Objectives are studied and referred to throughout the course. Students regularly receive verbal and written feedback.

Subject Information

The pupils are given opportunity to use a wide range of materials and techniques. They have access to two printing presses, a trolley bank of laptops with Photoshop and internet access. The department has a store of natural and man-made objects to use as inspiration for observational drawing and painting. The department has a wide range of books on artists and textbooks regarding art education. It is adjoined to the school library which staff and students often access.

BIOLOGY

There are two routes available through GCSE Science:

- **Triple Science:** Biology, Chemistry and Physics are taken as separate subjects leading to the award of 3 GCSEs
- **Trilogy Science:** A combined science course where all 3 subjects are still studied, with reduced content, leading to the award of 2 GCSEs

A large proportion of the content is common to both courses, therefore all pupils will study the same topics until taking their mock exams at the beginning of the Easter term in S5. At this point, science department staff will consider the results of all exams and topic tests, as well as the general work of the pupils from S3 to S5, in making a decision between Triple Science and Trilogy Science that is in the best interests of each individual pupil.

Please be aware that Triple Science is a demanding course, with significant additional content to be taught, leaving little time at the end of the course for revision in class. Therefore it is crucial that pupils are well-organised and self-motivated in order to achieve the best results.

The advantages of the Trilogy course for some of our students is that there is less material to learn and to revise, they will be working in a smaller group so will receive more one-to-one support, and there will be more time available at the end of the course for revision in class.

The information below contains more detail about the topics covered and the methods of assessment: pages contains more detail about the topics covered and the methods of assessment for both courses.

Qualification Overview

AQA BIOLOGY, SPECIFICATION CODE: 8461

- The course is a linear course: 2 exam papers will be taken at the end of the course.
 - ⇒ Each paper is 1 hr 45 min (100 marks)
 - ⇒ Each paper is 50% of the GCSE grade.
 - ⇒ Paper 1 covers Cell structure; Organisation; Infection and response and Bioenergetics
 - ⇒ Paper 2 covers Homeostasis and response; Inheritance, variation and evolution and Ecology.
 - ⇒ Questions are a mixture of multiple choice, structured, closed short answer and open response.
- Practical skills are assessed in 10 required practical activities. The written papers will also contain questions relating to these experiments.

Students following the GCSE Biology course in S4 and S5 will receive 1 double and 1 single lesson per week.

The course is divided into the following topics, taught across three academic years (S3 – S5). Students will take a progress test at the end of each topic. They will take an end of year exam in the Summer term of S4, and a mock exam in the Easter term of S5.

1. Cell structure
2. Organisation
3. Infection and response
4. Bioenergetics
5. Homeostasis and response
6. Inheritance, variation and evolution
7. Ecology

Content and Skills

AQA GCSE Biology provides an introduction to the various fields of Biology, including Cell Biology; Anatomy and Physiology; Ecology and Conservation; Microbiology and Plant Biology.

It is designed to prepare pupils thoroughly for A-level Biology courses by any examination board.

It also allows pupils to hone their practical skills and techniques, gaining confidence in planning experiments, using equipment, working scientifically and safely, and analysing experimental data.

Subject Information

During S4 pupils also have the opportunity to participate in the Biology Challenge Competition that is run nationally by the Royal Society for Biology.

CHEMISTRY

There are two routes available through GCSE Science:

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The advantages of the Trilogy course for some of our students is that there is less material to learn and to revise, they will be working in a smaller group so will receive more one-to-one support, and there will be more time available at the end of the course for revision in class.

The information below contains more detail about the topics covered and the methods of assessment:

Qualification Overview

AQA CHEMISTRY, SPECIFICATION CODE: 8462

Paper 1

- 1 hour 45 minutes, 100 marks, 50% of total assessment
- Topics 1-5 - Atomic Structure and Bonding, Periodic Table, Quantitative Chemistry, Chemical Changes, Energy Changes

Paper 2

- 1 hour 45 minutes, 100 marks, 50% of total assessment
- Topics 6-10 - Rates of Reaction, Organic Chemistry, Chemical Analysis, Chemistry of the Atmosphere, Using Resources.

Practical work is now assessed through a series of required practicals which take place during the length of the course and as part of the programme of study.

Content and Skills

The teaching of GCSE Chemistry starts as part of the S3/Year 9 course and continues fully in S4-5/Y10/11. Through this course we hope to develop a real interest and enjoyment of Chemistry.

Pupils will obtain a solid working knowledge and understanding of the fundamental concepts and principles involved in this subject. The pupils will also develop strong practical skills. Most topics are covered in greater depth than specified by AQA. This additional information is very helpful to students going on to study Chemistry at A level.

CLASSICAL CIVILISATION

Qualification Overview

OCR Classical Civilisation, specification code: J199

- There are two written papers. Each paper lasts 1 hour and 30 minutes and counts for 50% of the qualification.
- **Component 1: Thematic study**
Students study one of the two topics. Both involve a comparative study of ancient Greece and Rome, and combine literary and visual/material sources.

The component we teach is Myth and Religion (Component 11)
- **Component 2: Literature and culture**
Students couple an in-depth cultural study with the study of a related body of literature.

The topic we study is War and Warfare (Component 23)

Content and Skills

Classical Civilisation is the study of ancient Greece and Rome and it is open to all pupils entering S4. All source materials are in English so no prior knowledge of Greek or Latin is required, as long as you are interested in the myths, stories, history and culture of the ancient world!

It is examined by short factual questions and evaluation of the source materials. The source materials are either literature or visual and material evidence such as statues, vase paintings, archaeological discoveries etc.

Subject Information

Studying the classical world can give you an extra perspective on how societies work and why the modern world has developed in the way that it has.

Classical literature is interesting and exciting to read in its own right. Stories from the Iliad and Odyssey have been used in several epic films and TV series.

Classical Civilisation is a humanities subject and respected by both employers and universities.

COMPUTER SCIENCE

Qualification Overview

OCR GCSE (9–1) in Computer Science (J277)

- There are 2 compulsory exam papers for this course
 - ⇒ 2 x 1hr 30 min
 - ⇒ Paper 1 – Computer Systems (80 marks = 50%)
 - ⇒ Paper 2 – Computational thinking, algorithms and programming (80 marks = 50%)
- Programme of Study:
 - ⇒ Section 1, Computer Systems, consists of these topics of study:
1.1 Systems architecture, 1.2 Memory and storage, 1.3 Computer networks, connections and protocols, 1.4 Network security, 1.5 Systems software, 1.6 Ethical, legal, cultural and environmental
 - ⇒ Section 2, Computational thinking, algorithms and programming consists of these topics of study:
2.1 Algorithms, 2.2 Programming fundamentals, 2.3 Producing robust programs, 2.4 Boolean logic, 2.5 Programming languages and Integrated Development Environments
- NEA/Coursework details
 - ⇒ There is no formal coursework but students must be given the opportunity to undertake programming tasks, either to a specification or to solve some problems during their course of study.
- Fieldwork/Trip Information
 - ⇒ We aim to grow existing links with Sheffield Hallam University to offer opportunities for activities such as Science Week workshops and Games Britannia participation in addition to participation in international competitions such as Cyber Centurion and the Oxford Computing Challenge.

Content and Skills

Computer Science is an academic and challenging subject concerned with the design, programming and testing of computer software. You will study the theory of computational thinking and apply this practically in the design and development of computer systems. Learning computational thinking involves

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DESIGN AND TECHNOLOGY – SYSTEMS

learning to program (writing computer code) and applies theory related to how data is represented and stored. It considers issues of security, privacy and ethics. In scale it goes from examining the individual 1's and 0's of binary numbers to consideration of how to store and transmit the enormity of the Internet.

OCR GCSE Computer Science enables learners to develop an interest in computational thinking and programming. You will develop your understanding of the main principles of problem-solving using computers. You will apply your understanding – developing computer-based solutions to problems using algorithms and a number of high-level programming languages (e.g. Python and VB.NET). You will also study current and emerging computing technologies, and recognise the ethical issues and the potential risks computers pose. The course is an ideal foundation for further study in Computer Science.

Weekly lessons are split between theory and practical (programming). If you are interested in computers, programming and problem-solving then this might be the course for you. Prior experience in programming is not essential, although it would be helpful.

Subject Information

- Teaching Staff
 - ⇒ Head of Department: Mr G Morton
 - ⇒ Teacher of Computing: Mrs S Armstrong

- Textbooks and resources
 - ⇒ Students are issued with relevant textbooks for the duration of the course.
 - ⇒ Students also have access to booklets and slideshows produced within Birkdale and made available via the school network and the Internet. This includes comprehensive exam revision materials and access to their case study resources.
 - ⇒ We subscribe to useful teaching and revision resources and make these available to students.
 - ⇒ Where possible we use open source or free-to-use software that students can download and install at home.

- Additional support
 - ⇒ We run lunchtime clinics to help students make progress with the course.
 - ⇒ We encourage students to take part in Code Club to improve their coding skills and to take part in programming, code-cracking and (white-hat) hacking contests and challenges.
 - ⇒ We often make use of eXtreme Programming (XP) tricks such as paired programming to encourage development of good programming skills and to offer support to weaker coders while stretching more proficient students.

GCSE Design and Technology – Single Design and Technology qualification with Electronic systems, programmable components and mechanical devices. (Systems)

Qualification Overview

GCSE Eduqas – Design and Technology 9-1

1 exam Paper (2hr, 50%)

Section A: Core

A mix of short answer, structured and extended writing questions assessing candidates' knowledge and understanding of: technical principles, designing and making principles along with their ability to analyse and evaluate design decisions and wider issues in design and technology.

Core knowledge and understanding is presented in five clear and distinct topic areas:

- design and technology and our world smart materials
- electronic systems and programmable components
- mechanical components and devices
- materials

Learners are required to study all of the content in these five areas, to ensure they have a broad knowledge and understanding of design and technology and that they are able to make effective choices in relation to which materials, components and systems to utilise within design and make activities. In-depth knowledge and understanding is presented in:

- electronic systems, programmable components & mechanical devices

Section B: NEA/Coursework

50% of coursework. No set time limit

Assessment Criteria		Marks	Assessment objective
(a)	Identifying and investigating design possibilities.	10	AO 1
(b)	Developing a design brief and specification.	10	
(c)	Generating and developing design ideas.	30	AO 2
(d)	Manufacturing a prototype.	30	
(e)	Analysing and evaluating design decisions and prototypes.	20	AO 3
Total		100	

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Students will undertake a project based on a contextual challenge released by the exam board a year before certification. This will be released on 1 June. The project will test students' skills in investigating, designing, making and evaluating a prototype of a product. Task will be internally assessed and externally moderated.

Content and Skills

The GCSE in Design and Technology enables students to understand and apply iterative design processes through which they explore, create and evaluate a range of outcomes. The qualification enables students to use creativity and imagination to design and make prototypes (together with evidence of modelling to develop and prove product concept and function) that solve real and relevant problems, considering their own and others' needs, wants and values. It gives students opportunities to apply knowledge from other disciplines, including mathematics, science, art and design, computing and the humanities.

Although it is a single qualification we ask that the pupils opt for an area of specialism and may choose one of two specialist routes, Resistant Materials or Systems. The main focus of both choices is the designing and making of a marketable 3-dimensional prototype device using materials and components. Whichever route they decide upon the assessment is the same and is as follows:

- (a) Coursework 50%
- (b) Terminal examination 50%

Subject Information

Although it is a single qualification we ask that the pupils opt for an area of specialism and may choose one of two specialist routes, Resistant Materials or Systems. The main focus of both choices is the designing and making of a marketable 3-dimensional or prototype device using materials and components. Whichever route they decide upon the assessment is the same and is as follows:

- (a) Coursework/NEA 50% - This requires the student to produce a quality product or device in the specialist area they has chosen. Approximately half of the marks are awarded to the practical work with the remaining marks being awarded to the written folder which details the design progress of the practical work. Students are encouraged to submit their folder work regularly and keep within the given deadlines. The practical work is a learning process, where students are taught skills as they are needed to satisfy their design problem.
- (b) Terminal examination 50% - This examination aims to assess both the factual content of the course and the design capability of the pupils in the broader sense (ie not necessarily related to the specialist area). Maths skills are fundamental to design and technology. These skills will be embedded in the examination for this qualification.

Design and Technology – (Systems - specialism)

In this area of specialist study, pupils are encouraged to design and make in a range of different materials

such as metals, woods and plastics. With the first part of the course teaching them how to shape and join the various materials and as a result of their experience, to be able to confidently design using these materials. This then leads on to them solving a design problem of their choosing from the contextual challenge set by the exam board using a combination of materials and techniques. Help is given throughout the duration of their NEA project, with this being a learning exercise as well as a form of continual assessment.

The course will cover a range of areas within Design and Technology,

1. The impact of new and emerging technologies
2. How the critical evaluation of new and emerging technologies informs design decisions
3. How energy is generated and stored in order to choose and use appropriate sources
4. Developments in modern and smart materials, composite materials and technical textiles
5. The functions of mechanical devices used to produce different sorts of movements
6. How electronic systems provide functionality to products and processes
7. The use of programmable components to embed functionality into products
8. The categorisation of the types, properties and structure of ferrous and non-ferrous metals
9. The categorisation of the types, properties and structure of paper and boards
10. The categorisation of the types, properties and structure of thermoforming and thermosetting polymers
11. The categorisation of the types, properties and structure of natural, synthetic, blended and mixed fibres, and woven, non-woven and knitted textiles
12. The categorisation of the types, properties and structure of natural and manufactured timbers
13. All design and technological practice takes place within contexts which inform outcomes
14. Investigate environmental, social and economic challenges
15. Investigate and analyse the work of past and present professionals and companies to inform design.

Design and Technology – (Systems - specialism)

Areas that the students will cover are listed below:

- Functions of electronic and programmable devices /systems
- Bread boarding
- Input Devices
- Process Components
- Operational amplifiers and gain

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DESIGN AND TECHNOLOGY – RESISTANT MATERIALS

- Output Components
- Functions of mechanical devices/systems
- Levers Rack and Pinion, Pawl and Ratchet, Crank and Slider, Cams, worm gears, gears and pulleys
- Ecological and social footprint
- CAD to design-engineered products that can be cut/printed using the CNC equipment available in school

During S4, students will undertake mini projects before starting their NEA on or after 1 June.

Electronics:

PCB wearable Christmas badge, designed in circuit wizard, bread boarded and made into a PCB.

Mechanisms and machining:

Third hand soldering aid. CAD designed, NC cut foam base. Cast in aluminium then milled flat. Drilling and tapping to create threads to allow arms to be attached. Turning using the centre lathe to create an insert to support the soldering iron.

GCSE Design and Technology – Single Design and Technology qualification (Resistant materials/metals specialism)

GCSE Edexcel – Design and Technology – IDT0

1 exam paper (1hr 45min, 50%)

Section A: Core

The paper includes calculations, short-open and open response questions as well as extended writing questions focused on:

- Analysis and evaluation of design decisions and outcomes, against a technical principle, for
- prototypes made by others
- Analysis and evaluation of wider issues in design technology, including social, moral, ethical and environmental impacts.

Students must answer all questions in section A (40 marks).

Students must choose one specialism in section B – either:
Metals, Papers and Boards, Polymers, Systems, Textiles or Timbers (60 marks).

Section B: NEA/Coursework

50% of coursework. No set time limit

There are four parts to the NEA assessment:

1. **Investigate** (16 marks): this includes investigation of needs and research, and a product specification
2. **Design** (42 marks): this includes producing different design ideas, review of initial ideas, development of design ideas into a chosen design, communication of design ideas and review of the chosen design
3. **Make** (36 marks): this includes manufacture, and quality and accuracy
4. **Evaluate** (6 marks): this includes testing and evaluation.

Students will undertake a project based on a contextual challenge released by the exam board a year before certification. This will be released on 1 June. The project will test students' skills in investigating, designing, making and evaluating a prototype of a product. Task will be internally assessed and externally moderated.

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Content and Skills

The GCSE in Design and Technology enables students to understand and apply iterative design processes through which they explore, create and evaluate a range of outcomes. The qualification enables students to use creativity and imagination to design and make prototypes (together with evidence of modelling to develop and prove product concept and function) that solve real and relevant problems, considering their own and others' needs, wants and values. It gives students opportunities to apply knowledge from other disciplines, including mathematics, science, art and design, computing and the humanities.

Although is a single qualification we ask that the pupils opt for an area of specialism and may choose one of two specialist routes, Resistant Materials or Systems. The main focus of both choices is the designing and making of a marketable 3-dimensional prototype device using materials and components.

Whichever route they decide upon the assessment is the same and is as follows:

- (a) Coursework 50%
- (b) Terminal examination 50%

Subject Information

Although is a single qualification we ask that the pupils opt for an area of specialism and may choose one of two specialist routes, Resistant Materials or Systems. The main focus of both choices is the designing and making of a marketable-3 dimensional or prototype device using materials and components.

Whichever route they decide upon the assessment is the same and is as follows:

- (a) Coursework/NEA 50% - This requires the student to produce a quality product or device in the specialist area they has chosen. Approximately half of the marks are awarded to the practical work with the remaining marks being awarded to the written folder which details the design progress of the practical work. Students are encouraged to submit their folder work regularly to keep within the given deadlines. The practical work is a learning process, where students are taught skills as they are needed to satisfy their design problem.
- (b) Terminal examination 50% - This examination aims to assess both the factual content of the course and the design capability of the pupils in the broader sense (ie not necessarily related to the specialist area). Maths skills are fundamental to design and technology. These skills will be embedded in the examination for this qualification.

Design and Technology – (Resistant Materials – specialism)

In this area of specialist study, pupils are encouraged to design and make in a range of different materials such as metals, woods and plastics. With the first part of the course teaching them how to shape and join the various materials and as a result of their experience, to be able to confidently design using these materials. This then leads on to them solving a design problem of their choosing from the contextual challenge set by the exam board using a combination of materials and techniques. Help is given throughout the duration of their NEA project, with this being a learning exercise as well as a form of continual assessment.

The course will cover a range of areas within Design and Technology:

1. The impact of new and emerging technologies
2. How the critical evaluation of new and emerging technologies informs design decisions
3. How energy is generated and stored in order to choose and use appropriate sources
4. Developments in modern and smart materials, composite materials and technical textiles
5. The functions of mechanical devices used to produce different sorts of movements
6. How electronic systems provide functionality to products and processes
7. The use of programmable components to embed functionality into products
8. The categorisation of the types, properties and structure of ferrous and non-ferrous metals
9. The categorisation of the types, properties and structure of paper and boards
10. The categorisation of the types, properties and structure of thermoforming and thermosetting polymers
11. The categorisation of the types, properties and structure of natural, synthetic, blended and mixed fibres, and woven, non-woven and knitted textiles
12. The categorisation of the types, properties and structure of natural and manufactured timbers
13. All design and technological practice takes place within contexts which inform outcomes
14. Investigate environmental, social and economic challenges
15. Investigate and analyse the work of past and present professionals and companies to inform design

During S4 students study the core content of the exam. This will build upon their knowledge and understanding and is taught through three mini-projects before starting their NEA after 1 June.

- Cam Clamp project – metals
- Mortice and Tenon table/stool – Timbers
- Clock Project- Polymers
- Textiles experiments

DRAMA

Qualification Overview

Edexcel Level 1/Level 2 GCSE (9-1) in Drama, specification code: IDRO

- **Component 1: Devising – NEA** (worth 40% of the qualification)
 - ⇒ Create and develop a devised group performance piece from a stimulus.
 - ⇒ Performance of this devised piece or design realisation. (10%)
 - ⇒ Analyse and evaluate the devising process and final performance in a written portfolio - 2000 words. (30%)
 - ⇒ This work is completed over two terms.
 - ⇒ Group size will be between 3-6 students in accordance with exam board specification rules
 - ⇒ The work is internally marked and then moderated externally.

- **Component 2: Performance from Text – Practical Examination** (worth 20% of the qualification)
 - ⇒ Students will either perform in and/or design for two key extracts from a play text.
 - ⇒ Play texts are chosen to suit the performer and offer the best chance of success in accordance with exam board specification outlines.
 - ⇒ This work is completed over one term.
 - ⇒ This performance will be externally assessed by a visiting examiner.

- **Component 3: Theatre Makers in Practice – Written Examination: 1 hour 45 minutes (worth 40% of the qualification)**
 - ⇒ Students will work towards Component 3 throughout the entirety of the course.
 - ⇒ Students will study the performance text through practical exploration whilst learning to write about the play from the perspective of an actor, a director, and a designer.
 - ⇒ Students will watch at least four professional live theatre productions whilst learning how to analyse and evaluate the production from both a performance and design perspective.

Section A: Bringing Texts to Life (DNA by Dennis Kelly)

- ⇒ This section consists of one question broken into six parts (short and extended responses) based on an unseen extract from the chosen performance text.
- ⇒ Performance texts are not allowed in the examination as the extracts will be provided.

Section B: Live Theatre Evaluation

- ⇒ This section consists of two questions requiring students to analyse and evaluate a live theatre performance they have seen.
- ⇒ Students are allowed to bring in theatre evaluation notes of up to a maximum of 500 words.
- ⇒ Students are required to watch live professional theatre productions for Component 3.
- ⇒ Students will have the opportunity to watch on average four different productions in preparation for the challenges of the written examination.

Content and Skills

The course encourages students to work imaginatively and creatively in a collaborative context. The creation, communication and development of ideas are integral to the course structure. With opportunities to explore written play texts as well as develop their own devised performance work, pupils will find the course challenging and demanding, intellectually and artistically.

Subject Information

Students are offered the opportunity to develop their practical performance, analysis and critical thinking skills as part of the course. They will be offered an insight into both traditional and contemporary theatre practices.

ENGLISH LANGUAGE

Pearson Edexcel International GCSE in English Language (Specification A) (4EA1)

Qualification Overview

Assessment

Examination: Non-fiction Texts and Transactional Writing (60% of the total IGCSE)

- Examination duration : 2 hours and 15 minutes
- **Section A: Reading** – a mixture of short- and long-answer questions related to a non-fiction text from Part 1 of the Pearson Edexcel International GCSE English Anthology and one previously unseen extract. Total of 45 marks.
- **Section B: Transactional Writing** – one 45-mark writing task, from a choice of two involving a given audience, form or purpose.
- Students will be provided with the anthology text in the examination.

Coursework : Poetry and Prose Texts and Imaginative Writing (40% of the total IGCSE)

- Assessment comprises two essays.
- **Assignment A: Poetry and prose texts** – one 30-mark essay question based on any two poetry or prose texts from Part 2 of the Pearson Edexcel International GCSE English Anthology, including a 6-mark commentary on why these texts were selected.
- **Assignment B: Imaginative writing** – one 30-mark imaginative writing task.
- These assignments will be prepared and begun in class, with drafts being monitored to ensure they are the student's own work. The word limit for each assignment is 800 words and the advisory word count for the commentary is 200–300 words.

Non-Examination Assessment (NEA) in Spoken Language

The spoken language presentation may take a variety of forms, including:

- a speech or talk by a student, followed by questions from the audience.
- a formal debate or dialogue, such as an interview where the student is able to prepare extended responses to questions or prompts, which have been shared in advance, followed by questions from the audience.

In all cases, the presentation should be prepared and last no longer than 10 minutes

Students will be assessed on their presenting skills, the way they respond to questions and feedback and their use of Standard English. The assessment will take place in S5 and the award will be a separate endorsement of Pass, Merit or Distinction. It will not contribute to the overall GCSE result.

Subject Information

Students are encouraged to read widely, both fiction and non-fiction, in order to be able to fulfil their potential in the exams.

ENGLISH LITERATURE

Pearson Edexcel International GCSE in English Literature (4ET1)

Qualification Overview

Assessment

Examination: Poetry and Modern Prose (worth 60% of the total IGCSE)

- Examination duration: 2 hours
- Closed book, though students will be provided with the anthology poems in the examination
- **Section A – Unseen Poetry:** one 20-mark essay question exploring the meaning and effects created in an unseen poem. The poem will be reproduced in the question paper.
- **Section B – Anthology Poetry:** one 30-mark essay question from a choice of two, comparing two poems from Part 3 of the Pearson Edexcel International GCSE English Anthology.
- **Section C – Modern Prose:** one 40-mark essay question from a choice of two on *Of Mice and Men*

Coursework: Poetry and Modern Prose (worth 40% of the total IGCSE)

Assessment

- The assessment of this component is through two coursework assignments, internally set and assessed, and externally moderated by Pearson.
- Assignment A – Modern Drama: one essay response to a teacher-devised assignment on the studied text. We will study either *Kindertransport* by Samuels or *An Inspector Calls* by Priestley.
- Assignment B – Literary Heritage Texts: one essay response to a teacher-devised assignment on *Macbeth*.
- The total number of marks available is 60 (30 marks for each assignment). These assignments will be prepared and begun in class, with drafts being monitored to ensure they are the student's own work. The word limit for each essay is 800.

Subject Information

Reading widely is a key way to boost confidence in this subject. All students in S4 will be expected to carry a novel of their own choice with them in school at all times so they always have something good to read. Visiting the school library is a good option for anyone who struggles to find a novel they like. We also provide lists of recommended novels to all in S4.

Reading and sharing favourite poems, as well as going to the theatre, would always be a good way to support learning at home. We will arrange trips to the theatre to see a set text if at all possible.

GEOGRAPHY

Qualification Overview

Edexcel Specification A, specification code: 1GA0

- 3 papers
 - ⇒ All papers are 1 hour 30 minutes
 - ⇒ Paper 1 & 2 each 37.5% of the qualification
 - ⇒ Paper 3 25% of the qualification
- NEA/Coursework details
 - ⇒ No Coursework. 100% examination.
- Fieldwork/Trip Information
 - ⇒ There is a compulsory 3 day residential field trip to Snowdonia which takes places in the Easter term of S5. The approximate cost of this trip is £230. There will also be a local fieldwork day in Sheffield city centre.

Content and Skills

Paper 1: The Physical Environment (1 hour 30 minute examination; 37.5% of GCSE; 94 marks)

The changing landscapes of the UK – River landscapes, Glaciated landscapes. **Weather hazards and climate change** – Tropical storms, Drought. **Ecosystems, biodiversity and management** – Tropical Rainforests, Temperate deciduous woodlands.

Paper 2: The Human Environment (1 hour 30 minute examination; 37.5% of GCSE; 94 marks)

Changing Cities – Case studies of a major UK city (Sheffield) and a city in a developing or emerging country (Mumbai). **Global Development** – Case study of a developing or emerging country (India), **Resources and management** – A study of energy resources.

Paper 3: Geographical Investigations (1 hour 30 minute examination; 25% of GCSE; 64 marks)

Fieldwork (residential course) One fieldwork day completing a River investigation, one field day completing an Urban investigation. **UK Challenges** – A study of 4 key challenges facing the UK:

1. Resource consumption and environmental sustainability.
2. Settlement, population and economics,
3. Landscape,
4. Climate change.

Subject Information

GCSE Geography Edexcel A (1–9 grade) involves a thematic-based learning approach and allows pupils to focus on the geographical processes that shape our world through a study of physical and human Geography at all scales from local to global in different parts of the world.

This GCSE course builds on skills and knowledge developed at KS3 and offers good progression onto A level Geography. The skills acquired include the use of maps, graphs, statistical tests as well as interpretation of evidence analysis, drawing of conclusions and importantly, communicating findings.

The study of Geography develops an understanding of our surroundings and the ways in which people interact with each other and their environment. It provides an awareness of regional and world problems. It also encourages an interest in world affairs and local values which, in themselves, are an important component of this course.

GCSE Geography Edexcel A (1–9 grades) involves a thematic-based learning approach and allows pupils to focus on the geographical processes that shape our world through a study of physical and human Geography at all scales from local to global in different parts of the world. There are three components:

Component 1: The Physical Environment (1 hour 30 minute examination; 37.5% of GCSE; 94 marks)

The changing landscapes of the UK

- River landscapes
- Glaciated landscapes

Weather hazards and climate change

- Tropical storms
- Drought

Ecosystems, biodiversity and management

- Tropical Rainforests
- Temperate deciduous woodlands

Component 2: The Human Environment (1 hour 30 minute examination; 37.5% of GCSE; 94 marks)

Changing Cities

- Case studies of a major UK city (Sheffield) and a city in a developing or emerging country

Global Development

- Case study of a developing or emerging country

Resources and management

- A study of water or energy resources

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HISTORY

Component 3: Geographical Investigations (1 hour 30 minute examination; 25% of GCSE; 64 marks)

Fieldwork (residential course)

- One fieldwork day completing a River investigation
- One field day completing an Urban investigation

UK Challenges

- A study of 4 key challenges facing the UK:
 1. Resource consumption and environmental sustainability
 2. Settlement, population and economics
 3. Landscape
 4. Climate change

Geography is well placed alongside both the Sciences and the Arts. This GCSE course builds on skills and knowledge developed at KS3 and offers good progression onto A level Geography. The skills acquired include the use of maps, graphs, statistical tests as well as interpretation of evidence analysis, drawing of conclusions and importantly, communicating findings. A wide variety of careers are available which are linked to the subject and many employees today look favourably on those who have problem-solving skills, the ability to evaluate data and to make decisions.

Qualification Overview

AQA History, specification code: 8415

- **There are two written papers.** Each paper lasts 1 hour and 45 minutes and counts for 50% of the qualification. The course content is International Relations 1919 to 1939, Russia 1894 to 1945, British History [Power and the people] 1170 to today and the Age of Elizabeth 1568 to 1603.
- **There is no coursework.**
- **Fieldwork/Trip Information:** the study in the environment changes each year and the trips change with it. Previous visits have been to Hardwick Hall and the Globe Theatre in London.

Content and Skills

The AQA History GCSE features a broad range of periods and topics and aims to use the past to give students a better understanding of today's world. It is an extremely interesting course and can provide students with a highly regarded academic qualification.

This now well-established course tracks the events which have shaped Britain and the rest of the world, covering nearly a thousand years of History and exploring major topics and issues.

There is no time-consuming coursework and students will be assessed in two exams at the end of the two year course.

Subject Information

The students will study the following topics:

- 1 International Conflict and tension between the World Wars from 1918 to 1939 including the Peace of Versailles, after the World War I and the creation of the organisation designed to keep the peace of the world - the League of Nations. The course also looks at the World Economic Crisis, the policy of Appeasement, which was also meant to keep the peace of the world and Hitler's Foreign Policy, which was not.
- 2 Tsarist and Communist Russia from 1894 to 1945 including the fateful reign of the last Tsar Nicholas II and the famous revolutions that brought the Communists to power under Lenin and turned the Russian Empire into the Soviet Union. This course then looks at the murderous regime of Stalin, until the end of World War II.
- 3 Elizabethan England from 1558 to 1603 including the creation of the Church of England, the problems with Mary Queen of Scots and the Spanish Armada. This course will also involve a specific study of Hardwick Hall which includes a site visit.
- 4 Britain - Power and the people from 1170 to the present day which studies the relationship between those who rule in Britain and those who are ruled including such topics as Magna Carta, the Break from Rome, the English Civil War, the American War of Independence, the Right to Vote and the creation of Multi-Racial Britain.

LATIN

Qualification Overview

WJEC Eduqas, specification code: C990PB

There are three papers

- | | | | |
|------------------|------------------------------|-----------------------|-----|
| • Paper 1 | Latin Language | 1 hour and 30 minutes | 50% |
| • Paper 2 | Latin literature and sources | 1 hour and 15 minutes | 30% |
| • Paper 3 | Latin Narratives | 1 hour | 20% |

Content and Skills

Language skills for Component 1 are developed by continuing with the Cambridge Latin Course, reading Latin stories, playing language games and practising how to decode more advanced passages. Much of the language has already been covered in S1-S3, but we work to build up a more comprehensive understanding with more advanced grammatical structures.

For Component 2 we read and discuss a selection of Latin prose and verse sources on a particular theme, such as Chariot Racing, Magic & Superstition or Love and Relationships. This is all prepared in advance and in the examination a copy of the literature, its vocabulary and the other sources is available.

Component 3 enables students to put their language skills to use by reading a short selection of passages from an original Roman text, composed up to 2000 years ago. Like Component 2, this is carefully prepared in lesson time and there is no unseen language component.

Subject Information

Latin is valued because it helps to:

- Improve your communication skills
- Expand your English vocabulary by looking at Latin roots
- Learn vocabulary in other European languages
- Develop awareness of how languages work
- Understand the influences of Roman civilisation on our modern cultures

It is an option which is highly regarded by employers.

MATHEMATICS

Qualification Overview

Edexcel Mathematics, specification code: IMA1

- Assessment is via three 90 minute papers
 - ⇒ Each paper carries equal weight
 - ⇒ Paper 1 is non calculator, Papers 2&3 are calculator allowed

Content and Skills

Mathematics is taught in relevant contexts wherever possible. The emphasis of the new GCSE is very much on problem solving and application of Mathematics and these are skills which are embedded into our schemes of work throughout the school.

Subject Information

Progress is carefully monitored during the two year course by regular setting and marking of homework as well as half termly tests which consist of GCSE type questions pertinent to the most recent work covered.

MODERN FOREIGN LANGUAGES

Qualification Overview

AQA – 8658, 8668 and 8698

The qualification comprises four assessments, taken at the end of the course:

- **Paper 1:** Listening (Foundation – 35 minutes; Higher – 45 minutes): 25%
- **Paper 2:** Speaking (Foundation – 7–9 minutes; Higher – 10–12 minutes): 25%
- **Paper 3:** Reading (Foundation – 45 minutes; Higher – 1 hour): 25%
- **Paper 4:** Writing (Foundation – 1 hour; Higher – 1 hour 15 minutes): 25%

Summary of content

There are three themes. The first covers *Me, my family and friends; Technology in everyday life; Free-time activities*. The second covers *Home, town, neighbourhood and region; Social issues* such as voluntary work; *Global issues* such as the environment and poverty; *Travel and tourism*. The final theme deals with *My studies; Life at school; Education post-16; Career choices and ambitions*. Insight into the foreign culture and knowledge of the country thus go hand in hand with systematic mastery of the structure of the language and acquisition of vocabulary.

Content and Skills

These specifications have been designed to enable success at the candidate's own level; to test a range of skills; to improve communication skills; to create international awareness and to encourage further study of languages with easier transition to A level. A wide range of enjoyable and stimulating resources are used, with all of the six specialist language-teaching rooms equipped with interactive whiteboards with high quality sound systems. To enhance oral fluency, pupils have conversation in small groups with our French, German and Spanish assistants.

Study of a foreign language enhances cultural awareness, develops oral and written communication skills and increases confidence, all skills which can be transferred to other subjects. Moreover, as international travel and business become the norm, more and more employers are recruiting staff who can communicate in more than one language. A GCSE in a modern language or languages could therefore enhance future study and career prospects.

Trip Information

The department offers a range of homestays or study visits abroad and pupils are strongly recommended to take part in such visits.

The Modern Languages department is an active participant in events organised by Business Language Champions. BLC brings school and international business together and aims to demonstrate the importance of language skills in the workplace. Recent events include a business challenge based on the rail industry using French, German or Spanish, with a taster in Japanese and a GCHQ led challenge day.

Pupils have also participated in virtual challenges for GCSE language students such as 'Languages – On Doctor's Orders'.

Subject Information

Key features of the specification are:

- Two tiers of entry: a Foundation Tier (grades 1 – 5) and a Higher Tier (grades 4 – 9) although a candidate must enter all four skills at the same level
- Clearly defined topic areas
- Written assessment in listening, reading & writing skills
- Teacher-conducted speaking test with preparation time just before the test of a Role-play and Photo card

MUSIC

Qualification Overview

Edexcel Music, specification code: 1MU0

There are three inter-related elements of the GCSE course

- Performing (worth 30%) – coursework
- Composing (worth 30%) – coursework
- Appraising (worth 40%) – 1 hour 45 minute exam

Content and Skills

Performing: Pupils are encouraged to sing or play regularly in class. The marks for the performance section of the exam are divided equally between solo performing and ensemble performing. The standard level of difficulty for performances is equivalent to Grade 4 standard and this can be on any instrument. As a guide, it would be advisable to be at least Grade 2 standard prior to starting the course. The total performance time must be at least 4 minutes. **Pupils are entitled to receive 1 period of free instrumental tuition fortnightly to help support their performing coursework.**

Composing: Pupils will produce two pieces of composition coursework, lasting at least one minute each and no less than three minutes in total. Study will involve learning about a range of different compositional techniques and pupils will be able to specialise in the style of composing in which they feel the most comfortable.

Appraising: The appraising part of the course is linked in with the study of a range of set works:

Area of study	Set works	
Instrumental Music 1700–1820	Bach: 3rd Movement from Brandenburg Concerto no. 5 in D major	Beethoven: 1st Movement from Piano Sonata no. 8 in C minor 'Pathétique'
Vocal Music	Purcell: Music for a While	Queen: Killer Queen
Music for Stage and Screen	Schwartz: Defying Gravity (from 'Wicked')	Williams: Main title/rebel blockade runner (from Star Wars Episode IV: A New Hope)
Fusions	Afro Celt Sound System: Release	Esperanza Spalding: Samba Em Preludio

The exam will mainly test knowledge of these set works and the musical elements from which they are comprised. However, there will also be questions on music that is unfamiliar which means that study will not be limited to these eight pieces and pupils should expect to listen to and study a wide range of other pieces from different styles contained within the areas of study.

Subject Information

The most important reason for taking GCSE Music is because you enjoy the subject and want to continue learning more about it! Please contact Mr Jordan if you have any further questions about the course.

PHYSICAL EDUCATION

Qualification Overview

AQA Physical Education, specification code: 8582

Written examination 60%. Practical assessment 40%.

There are three components of assessment for this qualification:

- **Paper 1:** 1 hour 15 minutes *30% of GCSE*
- **Paper 2:** 1 hour 15 minutes *30% of GCSE*
- **Non-exam assessment (NEA):** *40% of GCSE*
Practical performance in **three** different physical activities and a **written analysis and evaluation of performance** to bring about improvement in one activity.

Content and Skills

Paper 1: The human body and movement in physical activity and sport (78 marks):

- Applied anatomy and physiology
- Movement analysis
- Physical training
- Use of data

Paper 2: Socio-cultural influences and well-being in physical activity and sport (78 marks):

- Sports psychology
- Socio-cultural influences
- Health, fitness and well-being
- Use of data

Non-exam assessment: Practical performance in physical activity and sport (100 marks):

- For each of their **three** activities, students will be assessed in skills in progressive drills (**10 marks per activity**) and in the full context (**15 marks per activity**).
- Students will be assessed on their analysis (**15 marks**) and evaluation (**10 marks**) of performance to bring about improvement in one activity.

Subject Information

The GCSE Physical Education course will develop students' understanding and skills relating to health and fitness, socio-cultural and scientific aspects of Physical Education. With a high non-examination percentage, this course should appeal to those students who possess strong practical skills and who are interested in understanding the factors that affect sporting performance. This qualification will give a strong foundation of knowledge and prepare students well for A Level Physical Education, as well as other A Level courses such as Biology and Psychology.

PHYSICS

There are two routes available through GCSE Science:

- **Triple Science:** Biology, Chemistry and Physics are taken as separate subjects leading to the award of 3 GCSEs
- **Trilogy Science:** A combined science course where all 3 subjects are still studied, with reduced content, leading to the award of 2 GCSEs

A large proportion of the content is common to both courses, therefore all pupils will study the same topics until taking their mock exams at the beginning of the Easter term in S5. At this point, science department staff will consider the results of all exams and topic tests, as well as the general work of the pupils from S3 to S5, in making a decision between Triple Science and Trilogy Science that is in the best interests of each individual pupil.

Please be aware that Triple Science is a demanding course, with significant additional content to be taught, leaving little time at the end of the course for revision in class. Therefore it is crucial that pupils are well-organised and self-motivated in order to achieve the best results.

The advantages of the Trilogy course for some of our students is that there is less material to learn and to revise, they will be working in a smaller group so will receive more one-to-one support, and there will be more time available at the end of the course for revision in class.

The information below contains more detail about the topics covered and the methods of assessment:

Qualification Overview

AQA PHYSICS, SPECIFICATION CODE: 8463

- The course is a linear course: 2 exam papers will be taken at the end of the course.
 - ⇒ Each paper is 1 hr 45 min (100 marks)
 - ⇒ Each paper is 50% of the GCSE grade.
 - ⇒ Paper 1 covers Energy, Electricity, Particle model of matter and Atomic structure.
 - ⇒ Paper 2 covers Forces, Waves, Magnetism and electromagnetism; and Space physics.
 - ⇒ Questions are a mixture of multiple choice, structured, closed short answer and open response.
- Practical skills are assessed in 10 required practical activities. The written papers will also contain questions relating to these experiments.

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RELIGIOUS STUDIES

Content and Skills

Students following the GCSE Physics course in S4 and S5 will receive 1 double and 1 single lesson per week.

The course is divided into the following topics, taught across three academic years (S3 – S5). Students will take a progress test at the end of each topic. They will take an end of year exam in the Summer term of S4, and a mock exam in the Easter term of S5.

1. Energy
2. Electricity
3. Particle model of matter
4. Atomic structure
5. Forces
6. Waves
7. Magnetism and electromagnetism
8. Space physics

Subject Information

Students who follow the GCSE Physics course will develop many skills, including scientific literacy, numeracy, problem-solving, interpreting data, communication, practical skills and ICT.

Qualification Overview

WJEC Eduqas Route A, specification code: C120P3

- **Paper 1: Religious, Philosophical and Ethical Studies in the Modern World** 2 Hours 50%

This paper involves learning about and assessing the way Christian belief is applied to certain ethical and philosophical issues: Issues of Relationships – marriage, sex ethics and gender equality; Issues of Life and Death – creation, environmental ethics, science and religion, abortion, euthanasia and life after death; Issues of Good and Evil – crime and punishment, forgiveness and the problem of evil; Issues of Human Rights – social justice, prejudice and wealth and poverty.
- **Paper 2: Christianity – Beliefs and Practices** 1 Hour 25%

Here we explore the fundamental beliefs of Christianity: how Christians understand God, how they think about creation and how they answer the problem of evil and suffering. We look at beliefs about Jesus Christ: incarnation, crucifixion and resurrection. We then consider the importance of key Christian practices: worship, prayer, social action and mission.
- **Paper 3: Islam – Beliefs and Practices** 1 Hour 25%

In this paper we explore the central beliefs of Islam: articles of faith, the nature and character of Allah, the prophethood of Muhammad (pbuh), sources of wisdom and beliefs about life after death. We also learn about important practices: the creed, prayer, pilgrimage, giving to the poor, fasting and festivals.

Content and Skills

Religious Studies is a respected academic subject that requires students to understand some challenging material and then to argue their viewpoint clearly. It is valuable for developing critical thinking skills and learning how to express ideas clearly and persuasively. In all three papers, half of the marks are for evaluation: this is a chance to reflect deeply and critically about profound beliefs and complex moral dilemmas. Our studies will take us into the heart of both a Christian and an Islamic view of the world.

Subject Information

Students need to be ready to consider new ideas and to argue their case. They do not need to have any particular religious conviction or, indeed, any religious faith at all. In the past, students with a variety of views, Muslims, atheists, Christians and agnostics have completed the course with great success.

COMBINED SCIENCE: TRILOGY

There are two routes available through GCSE Science:

- **Triple Science:** Biology, Chemistry and Physics are taken as separate subjects leading to the award of 3 GCSEs
- **Trilogy Science:** A combined science course where all 3 subjects are still studied, with reduced content, leading to the award of 2 GCSEs

A large proportion of the content is common to both courses, therefore all pupils will study the same topics until taking their mock exams at the beginning of the Easter term in S5. At this point, science department staff will consider the results of all exams and topic tests, as well as the general work of the pupils from S3 to S5, in making a decision between Triple Science and Trilogy Science that is in the best interests of each individual pupil.

Please be aware that Triple Science is a demanding course, with significant additional content to be taught, leaving little time at the end of the course for revision in class. Therefore it is crucial that pupils are well-organised and self-motivated in order to achieve the best results.

The advantages of the Trilogy course for some of our students is that there is less material to learn and to revise, they will be working in a smaller group so will receive more one-to-one support, and there will be more time available at the end of the course for revision in class.

The information below contains more detail about the topics covered and the methods of assessment:

Qualification Overview

AQA GCSE COMBINED SCIENCE: TRILOGY, SPECIFICATION CODE: 8464

- The course is a linear course: 6 exam papers (2 each in Biology, Chemistry and Physics) will be taken at the end of the course.
 - ⇒ Each paper is 1 hr 15 min (70 marks)
 - ⇒ Each paper is 16.7% of the GCSE grade
 - ⇒ Biology Paper 1 covers Cell Biology; Organisation; Infection and response; and Bioenergetics.
 - ⇒ Biology Paper 2 covers Homeostasis and response; Inheritance, variation and evolution; and Ecology.
 - ⇒ Chemistry Paper 1 covers Atomic structure and the periodic table; Bonding, structure, and the properties of matter; Quantitative chemistry; Chemical changes; and Energy changes.
 - ⇒ Chemistry Paper 2 covers the rate and extent of chemical change; Organic chemistry; Chemical analysis; Chemistry of the atmosphere; and using resources.

- ⇒ Physics Paper 1 covers Energy; Electricity; Particle model of matter; and Atomic structure.
- ⇒ Physics Paper 2 covers Forces; Waves; and Magnetism and electromagnetism

Questions are a mixture of multiple choice, structured, closed short answer and open response.

- Practical skills are assessed in 21 required practical activities (7 in Biology, 6 in Chemistry and 8 in Physics). The written papers will also contain questions relating to these experiments.

Content and Skills

Students following the GCSE Combined Science: Trilogy course in S4 and S5 will receive 1 double and 1 single lesson per week in each of Biology, Chemistry and Physics.

The course is divided into the following topics, taught across three academic years (S3 – S5). Students will take progress tests at key points throughout the course. They will take an end of year exam in the Summer term of S4, and a mock exam in the Easter term of S5.

Please note that much of the content is common to both the Trilogy and the Separate Science courses.

Biology

1. Cell biology
2. Organisation
3. Infection and response
4. Bioenergetics
5. Homeostasis and response
6. Inheritance, variation and evolution
7. Ecology

Chemistry

8. Atomic structure and the periodic table
9. Bonding, structure, and the properties of matter
10. Quantitative chemistry
11. Chemical changes
12. Energy changes
13. The rate and extent of chemical change
14. Organic chemistry
15. Chemical analysis
16. Chemistry of the atmosphere
17. Using resources

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Physics

- 18. Energy
- 19. Electricity
- 20. Particle model of matter
- 21. Atomic structure
- 22. Forces
- 23. Waves
- 24. Magnetism and electromagnetism

Students who follow the GCSE Combined Science: Trilogy course will develop many skills, including scientific literacy, numeracy, problem-solving, communication, practical skills and ICT.





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