

IGCSE - GCSE OPTIONS

**Information & Guidance
Booklet 2024**



Byron College

THE BRITISH INTERNATIONAL SCHOOL

IGCSE Mathematics (Exam Board: Cambridge, Syllabus Code: 0580) is a compulsory course that is offered to all students entering Year 10 at Byron College.

The course is differentiated and is taught at **two** levels:

- Mathematics **CORE** - for students who need a basic menu of essential mathematical skills;
- Mathematics **EXTENDED** - for students who wish to continue with mathematics at Advanced level.

Why study Maths at IGCSE Level?

The aims of the Cambridge IGCSE in Maths are to encourage students to:

- develop their mathematical knowledge and oral, written and practical skills in a way which encourages confidence and provides satisfaction and enjoyment;
- apply mathematics in everyday situations and develop an understanding of the part which mathematics plays in the world around them;
- solve problems, present the solutions clearly, check and interpret the results;
- recognize when and how a situation may be represented mathematically, identify and interpret relevant factors and, where necessary, select an appropriate mathematical method to solve the problem;
- use mathematics as a means of communication with emphasis on the use of clear expression;
- develop an ability to apply mathematics in other subjects, particularly science and technology;
- develop their mathematical abilities by considering problems and conducting individual and co-operative enquiry and experiment, including extended pieces of work of a practical and investigative kind;

What will I learn?

Cambridge IGCSE Mathematics encourages the development of mathematical knowledge as a key life skill, and as a basis for more advanced study. The syllabus builds learners' confidence by helping them develop a feel for numbers, patterns and relationships, and places a strong emphasis on solving problems and presenting and interpreting results. Learners also gain an understanding of how to communicate and reason using mathematical concepts.

How will I be assessed?

Mathematics are assessed with 2 written papers:

Core:

Paper 1 – non calculator paper (1 hour 30 minutes – weight 50%)

Paper 3 – calculator paper (1 hour 30 minutes – weight 50%)

Extended:

Paper 2 – non calculator paper (2 hours – weight 50%)

Paper 4- calculator paper (2 hours – weight 50%)

Future Opportunities?

This course is recommended to students who are considering studying Engineering, Sciences, Economics, Management or Mathematics at University.

IGCSE First Language English (Exam Board: Cambridge, Syllabus Code: 0500) is aimed at students whose English is of native, near-native or advanced standard.

Why study IGCSE First Language English?

This course enables students to respond knowledgeably to a rich array of reading passages. They will use some of these passages to inform and inspire their own writing and write in a range of text types for different audiences.

What will I learn?

Students will be encouraged to read widely, both for their own enjoyment and to further their awareness of the ways in which English can be used. They will also develop more general analysis and communication skills such as synthesis, inference, and the ability to order facts and present opinions effectively.

How will I be assessed?

You will take two compulsory papers - each paper counts for 50% of the total mark. All candidates sit for the same papers which are graded A* - G.

Future Opportunities?

These skills are of great importance to anyone hoping to pursue an academic career in an English-speaking environment such as college/university.

IGCSE English as a Second Language (Exam Board: Cambridge, Syllabus Code: 0511) is aimed at students whose first language is not English, but who use it as a language of study.

Why study IGCSE English as a Second Language?

This course will enable students to become independent users of English, and to be able to use English to communicate effectively in a variety of practical contexts.

What will I learn?

Students will be presented with a variety of stimuli that will build up their skills in reading and writing. They will also engage in conversations on a variety of topics and develop their skills in responding to different situations and audiences with a degree of accuracy and clarity.

How will I be assessed?

You will take three papers: Reading/Writing (50% of the total mark), Speaking (25% of the total mark) and Listening (25% of the total mark). All candidates sit for the same papers which are graded A* - G.

Future Opportunities?

Students develop not only knowledge and understanding, but also skills in creative thinking, enquiry and problem-solving, helping them to perform well and prepare for the next stage of their education. Successful learners will have better employment prospects and gain lifelong skills, including a greater international perspective.

IGCSE English Literature (Exam Board: Cambridge, Syllabus Code: 0475) is aimed at students who have shown an ardent interest in the study of literary texts at KS3.

Why study IGCSE English Literature?

Literature from a range of writers and literary traditions is studied, and students are introduced to different literary forms and genres such as drama, prose, and poetry.

What will I learn?

Students will develop an appreciation of the ways in which authors achieve their literary effects. They will also be encouraged to explore, through literature, the cultures of their own and other societies.

How will I be assessed?

You will take three papers: Paper 1 Poetry & Prose (50% of the total mark), Paper 3 Drama (25% of the total mark) and Paper 4 Unseen (25% of the total mark).

Future Opportunities?

Through in-depth class discussions where they engage with sophisticated literary concepts, students develop critical thinking skills that are necessary for a plethora of academic options and careers.

GCSE Greek (Exam Board: Edexcel, Syllabus Code: (1GK0))

Why study?

The presence of more than 4 000 000 people of Greek origin in more than 100 countries around the globe proves in the most profound way that Hellenism lives and acts, to a great extent, beyond the Greek borders. Students will study across a variety of contexts relevant to their age and interests and will develop a greater awareness of the culture of Greek-speaking communities and countries as well as transferable language learning skills.

What will I learn?

This course enables students to develop the ability to listen to and understand spoken Greek in a range of contexts and a variety of styles, to communicate in speech for a variety of purposes, to read and respond to different types of written language as well as to understand and apply a range of vocabulary and structures.

How will I be assessed?

This course consists of four externally examined papers based on the following skills: Listening, Speaking, Reading and Writing. Students must complete their speaking assessment in April/May and all other assessments in May/June in any single year. Each paper is available at Foundation tier or Higher tier. Students must be entered for a single tier across all papers.

- **Paper 1: Listening and Understanding in Greek.** This paper consists of a written examination: Foundation tier: 35 minutes, including 5 minutes' reading time; Higher tier: 45 minutes, including 5 minutes' reading time; 50 marks 25% of the total qualification. Students will respond to multiple-response and short-answer open-response questions based on a recording featuring male and female Greek speakers.
- **Paper 2: Speaking in Greek.** This assessment is internally conducted and externally assessed (Foundation tier: 7–9 min. plus 12 min. preparation time; Higher tier: 10–12 min. plus 12 min. preparation time; 25% of the total qualification. There are three tasks which must be conducted in the following order: Task 1 – a role play based on one topic that is allocated by Pearson, Task 2 – questions based on a picture stimulus based on one topic that is allocated by Pearson, Task 3 – conversation based on two themes.
- **Paper 3: Reading and Understanding in Greek.** This paper consists of a written examination (Foundation tier: 50 min.; Higher tier: 1h5 min.) 25% of the total qualification. Students are assessed on their understanding of written Greek across a range of different types of texts and are required to respond to multiple-response and short-answer questions based on these texts.
- **Paper 4: Writing in Greek.** This paper consists of a written examination (Foundation tier: 1h15 min.; Higher tier: 1h25 min.; 25% of the total qualification). Students are required to produce responses of varying lengths and types to express ideas and opinions in Greek. The instructions to students are in Greek. Word counts are specified for each question.

What are the entry requirements?

It is strongly recommended that students who wish to study Greek at GCSE level, have a strong background in KS3 Greek, equivalent to a CEFR-A2 level.

Pathways

i) GCSE Greek one year course +IAS in Year 11:

Those students who can achieve the CEFR-B2 by Year 10, will be given the opportunity to sit the GCSE Greek at the end of Year 10 and complete the IAS Greek in Year 11. Those students will be also given the opportunity to sit the CEFR-C1 in Year 11.

ii) GCSE Greek two year course:

Those students who enter the GCSE course with a CEFR A2 level, will complete the course in two years.

Further Opportunities?

Studying a foreign language has powerful educational benefits and career and workplace advantages especially in the field of translation or communication with people from non-English speaking countries, tourism, government, politics, media, publishing, journalism and education. Languages go well with subjects like English Literature, History and Geography as they are closely linked and can inform each other. MFL is often defined as one of the facilitating subjects and some universities and some Universities require a Modern Foreign Language GCSE for entry across all of its degree programmes.

IGCSE Spanish (Exam Board: Edexcel, Syllabus Code: 4SP0)

Why study?

This qualification enables students to develop the ability to communicate effectively in the target language through the written word, using a range of vocabulary and structures and to develop the ability to communicate effectively in the target language through speaking, using a range of vocabulary and structures. In addition, it will help them develop knowledge and understanding of countries and communities where the target language is spoken and a positive attitude towards modern foreign language learning. They will also acquire a suitable foundation for further study of the target language, or another language.

What will I learn?

Students will develop their ability to listen to and understand the spoken Spanish language in a range of contexts and a variety of styles, read and respond to different types of written language, communicate in writing, understand and apply a range of vocabulary and structures. They will develop effective language learning and communication skills and communicate in speech for different purposes, develop the ability to listen to and understand the spoken Spanish language in a range of contexts and a variety of styles. They will also read and respond to different types of written language, communicate in writing, understand and apply a range of vocabulary and structures, develop effective language learning and communication skills and communicate in speech for different purposes.

How will I be assessed?

This qualification comprises three external assessments:

- Paper 1 (Listening Assessment- 35 min.),
- Paper 2 (Reading and Writing Assessment - 1h 45min.) and
- Paper 3 (Speaking Assessment: Max. 10 min.). Each paper is targeted at grades 9-1.

What are the requirements?

It is strongly recommended that students who wish to study Spanish at IGCSE level, have a strong background in KS3 Spanish, equivalent to a CEFR-A2 level.

Future opportunities?

Studying a foreign language has powerful educational benefits and career and workplace advantages especially in the field of translation or communication with people from non-English speaking countries, tourism, government, politics, media, publishing, journalism and education. Languages go well with subjects like English Literature, History and Geography as they are closely linked and can inform each other. The Russell Group Universities define MFL as one of the facilitating subjects and some universities, like University College London, require a Modern Foreign Language GCSE for entry across all of its degree programmes. This course provides progression to GCE AS and Advanced GCE level, and other equivalent qualifications.

IGCSE Global Perspectives (Exam Board: Cambridge, Syllabus Code: 0457)

Why study Global Perspectives at IGCSE?

Cambridge IGCSE Global Perspectives is a groundbreaking and stimulating course that stretches across traditional subject boundaries and develops transferable skills. It is both cross-curricular and skills-based and taps into the way learners of today enjoy learning, including teamwork, presentations, projects, and working with other learners around the world. The emphasis is on developing the ability to think critically about a range of global issues where there is always more than one perspective.

What will I learn?

The course will give you a better understanding of the world by looking into global issues and current affairs. You will be able to explore them by researching case studies (e.g. the impact of fake news on society or the actions taken to protect local ecosystems), talking part in class activities (such as debates) and developing awareness of current affairs (watching news, reading newspapers, magazines) you will be able to understand different perspectives of an issue from a global, national or local point of view. Various guest speakers and out of school collaborations will be a valuable addition to your learning. Over the past few years Global Perspectives students have collaborated with a school in Denmark (including hosting them a few times), interviewed professionals in their field of study, organized and run events on the topics of Human Rights and Inequality as well as participating in workshops run by the Polish Embassy, Lawyers and Social workers.

You will also develop important skills such as:

- The ability to carry out research successfully
- Communication skills needed to support arguments with reasons
- The ability to analyse different perspectives
- Identifying causes and consequences of an issue
- Identifying possible solutions to a problem
- Developing and justifying a line of reasoning
- Collaboration

How will I be assessed?

The course consists of three components: Written Examination (35%), Individual Report (30%) and Team Project (35%). Written Examination is done under exam conditions and it takes 1 hour 25 minutes. Individual Report and Team Project are part of the course work and will be carried out in class under controlled assessment.

Future Opportunities?

Global Perspectives is an excellent foundation for the world of work particularly with related careers in Journalism, History, Archaeology, Geography, Politics, Sociology, Literature, Environmental studies, Law and many others.

IGCSE Business Studies (Exam Board: Cambridge, Syllabus Code: 0450)

Why study Business Studies at IGCSE?

The Business Studies syllabus develops learners' understanding of business activity in the public and private sectors, and the importance of innovation and change. Learners find out how the major types of business organisation are established, financed, managed and regulated. Factors influencing business decision-making are also considered, as are the essential values of cooperation and interdependence.

You will not only study business concepts and techniques but also related skills such as numeracy and enquiry. The syllabus provides both a foundation for further study at A Level and an ideal preparation for the world of work. The department connects the subject to real-world business visits beyond the classroom, and you will also have the opportunity to develop your practical presentation skills.

What will I learn?

Over the duration of the 2-year course you will study six units: understanding business activity, people in business, marketing, operations management, financial information and decisions, external influences on business activity.

This will give you an understanding of business concepts and techniques across a range of businesses. You will be able to understand different forms of organisations, the environments in which businesses operate and business functions such as marketing, operations, human resources and finance.

You will also develop important skills such as:

- the ability to calculate and interpret business data
- communication skills needed to support arguments with reasons
- the ability to analyse business situations and reach decisions or judgements.

How will I be assessed?

All candidates take two components, Paper 1 and Paper 2. Each paper is 1 hour 30 minutes and the papers are equally weighted.

- Paper 1 contains four multi-part questions requiring a mixture of short answers and structured data Responses.
- Paper 2 contains four multi-part questions based on a case study provided as an Insert with the paper.

Future Opportunities?

Business Studies is an ideal foundation for further study at A level with its development of numeracy skills and analytical writing techniques. Many students continue studying Business at A level as it is a versatile and engaging course with a host of related degree options for further study. Students often opt to study related A levels such as Economics, History and Mathematics.

Business Studies is an excellent foundation for the world of work particularly with related careers in Finance, Marketing, Management, Consultancy and Accountancy services. Human Resources and Operations Management services.

IGCSE History (Exam Board: Cambridge, Syllabus Code: 0470)

Why study History at IGCSE?

Cambridge International GCSE History is challenging and rewarding. Students who show a keen interest in history, politics and foreign cultures are well suited to this subject. They will have the opportunity to expand their knowledge of a multitude of events, individuals and ideas. Throughout the two-year course there are lifelong skills which will be gained which can be applied in both academic and professional settings. These skills include:

- developing an interest in and enthusiasm for the past
- exploring historical concepts such as cause and consequence, change and continuity, and similarity and difference
- appreciating historical evidence and how to use it
- gaining a greater understanding of international issues and relationships
- learning how to present clear, logical arguments

What will I learn?

Students will have the opportunity to dive into the rich history of the 20th Century. During the first year of IGCSE History, students will be studying events in Europe from 1914 through to 1939. Beginning with the First World War and the peace treaties of 1919-23, students are given an insight to the terrors of war and the effects that it had on European nations and relations between them for years to come. The League of Nations, the predecessor to the United Nations, is studied in depth. The final section of the first year will focus on the deterioration of relations leading up to the Second World War with a closer look at attempts to maintain peace through the policy of appeasement. Students will also learn about the start of the Cold War. There will be a much greater emphasis on American history from the aftermath of the war to the collapse of the Soviet Union. Students will look at attempts to contain the spread of communism through conflict, negotiation and support in areas such as Korea, Vietnam and Cuba. Students will also look at the USSR's control over Eastern Europe from 1948 – 1989

During the second year of IGCSE History, students will focus on the Depth Study (Paper 4) which focuses on Nazi Germany and the rise, consolidation and maintenance of power by Hitler and the Nazi Party.

How will I be assessed?

The course consists of three components: Paper 1 (40%), Paper 2 (30%) and Paper 4 (30%).

In Paper 1 students will choose to answer two questions from Section A (Core Content) and one question from Section B (Depth Studies). Paper 2 consists of source-based questions on a prescribed subject (a specific chapter, which changes every year) and students have to answer all the questions. Paper 1 is two hours long and Paper 2 is one hour and forty-five minutes. Paper 4 is an alternative to coursework which focuses on the depth study and has the duration of one hour.

Future Opportunities?

Many students continue to study AS and A-Level History. Related future careers include accountancy firms, banks, education, law firms, management consultancies, publishing companies, retailers, schools, television and radio.

IGCSE Economics (Exam Board: Edexcel, Syllabus Code: 4EC1)

Why study Economics at IGCSE?

When students understand how markets and economies work, they develop an economic awareness to benefit them personally and professionally for years to come.

The aim is to increase students' understanding of the world in which they live and enable them to engage more effectively with current and historical economic issues on a local, national and global level. As an international school, this is of utmost importance, as students prepare to become global leaders of tomorrow.

The IGCSE syllabus lays the foundation for successful progression to A level Economics, a challenging and rewarding subject that prepares students for university and their future career.

What will I learn?

Throughout the two-year course you will develop an understanding of economic concepts and apply these concepts to real-life situations. This knowledge will help you make sense of the world around you, especially current affairs. You will learn how wealth is created by individuals, companies, and countries and how this shapes the face of the globe.

The course is divided into two units, microeconomics, and macroeconomics. Micro deals with businesses and how they operate in markets, how these firms make profit and how they compete against each other. Whereas macro deals with the economy as whole, be it countries or the world economy, and how different decisions dynamically change the standard of living for billions of people.

The subject fosters in students an awareness of economic change and its impact on developing and developed economies and helps students to understand economic issues, problems and possible solutions that affect mixed economies across the world.

It provides skills that are valuable to everyday life and especially students' future in order to participate effectively in society as citizens, producers and consumers.

Additionally the course provides skills such as the ability to calculate, interpret and evaluate economic data in order to make reasoned arguments and informed judgements

How will I be assessed?

Paper 1: *Microeconomics and Business Economics*

Topics

The market system: the economic problem, economic assumptions

Business economics: production, productivity and division of labour, business costs, revenues and profit, business competition.

Examination is 1 hour 30 minutes, consisting of four compulsory questions, each worth 20 marks. The sub questions are a mixture of multiple-choice, short-answer, data response and open-ended questions. Paper 1 is worth 50% of the total International GCSE. Total for paper: 80 marks.

Paper 2: Macroeconomics and the Global Economy.

Topics

Government and the economy: Macroeconomic objectives, government policies, relationships between objectives and policies.

The global economy: globalisation, international trade, exchange rates

Examination is 1 hour 30 minutes, consisting of four compulsory questions, each worth 20 marks. The sub questions are a mixture of multiple-choice, short-answer, data response and open-ended questions. Paper 2 is worth 50% of the total International GCSE. Total for paper: 80 marks.

Future Opportunities?

Economics is an ideal foundation for further study at A level with its development of numeracy skills and analytical writing techniques. Many students continue studying Economics at A level as it is a versatile and engaging course with a host of related degree options for further study.

Future careers where an economics degree is necessary or useful are banking and finance, investment analyst, stockbroker, economist at a large institution, financial risk analyst, business development analyst, politician, data scientist, positions in international institutions like the World Bank, United Nations and International Monetary Fund and of course, an economics teacher.

IGCSE Geography (Exam Board: Edexcel, Syllabus Code: 4GE1)

Why study Geography at IGCSE?

This qualification enables students to explore the world, climate change and their own place in it. The content and assessment approach for this qualification has been designed to meet students' needs in the following ways:

Two-paper assessment - a new model allows students to focus on physical and human geography; concepts and content - the material buildings understanding and awareness of a range of geographical concepts and skills, including fieldwork; localised content; broad and deep development of skills

What will I learn?

Physical geography

- River environments
- Coastal environments
- Hazardous environments including fieldwork from one of these topics

Human geography

- Economic activity and energy
- Rural environments
- Urban environments including fieldwork from one of these topics
- Global issues (fragile environments and climate change, globalisation and migration, development and human welfare)

How will I be assessed?

Paper 1: Examination length: 1 hour and 10 minutes. The examination paper is in two sections.

Section A (50 marks). Candidates choose two out of three questions on: river environments, coastal environments, hazardous environments. Section B (20 marks). Candidates choose one out of three fieldwork-related questions on: river environments, coastal environments, hazardous environments. Total for paper: 70 marks.

Paper 2: Examination length: 1 hour and 45 minutes. The examination paper is in three sections. Section A (50 marks). Candidates choose two out of three questions on: economic activity and energy, rural environments, and urban environments. Section B (20 marks). Candidates choose one out of three fieldwork-related questions on: economic activity and energy, rural environments, and urban environments. Section C (35 marks). Candidates choose one out of three questions on: fragile environments and climate change, globalisation and migration, and development and human welfare. Total for paper: 105 marks

Future opportunities?

IGCSE Geography can lead to AS and/or A Level Geography. Possible careers related to the subject include: tourism, employment in NGOs, city planning, agro-tourism, environmental research, marine biology, geology, volcanology, to name but a few.

The **Cambridge IGCSE Biology / Chemistry / Physics (Core and Extended)** syllabi help learners to understand the technological world in which they live and take an informed interest in science and scientific developments. Learners gain an understanding of the basic principles of each particular science through a mix of theoretical and practical studies. They also develop an understanding of the scientific skills essential for further study at A Level, which are useful in everyday life.

As they progress, learners understand how science is studied and practiced, and become aware that the results of scientific research can have both good and bad effects on individuals, communities and the environment.

In all three sciences students sit three exams in Year 11 at the end of the two-year course. Candidates who have studied the core curriculum can obtain a maximum of Grade C; while students who have studied the extended curriculum sit different theory papers and can attain Grades A* to E.

It is strongly recommended that students who wish to study any science at IGCSE level, have a strong background in KS3 science and possess an inquiring scientific mind.

IGCSE Biology (Exam Board: Cambridge, Syllabus Code: 0610) is offered as an optional course.

Why study Biology at IGCSE Level?

The aim of the Cambridge IGCSE in Biology is to:

- Develop enthusiasm for the subject and build further on past knowledge.
- Develop deeper understanding of different areas of the subject and relate between them.
- Encourage critical thinking by combining ideas across the curriculum and with other sciences.

What will I learn?

Biology is the study of life, including topics such as disease, genetics, biotechnology, and human, plant and environmental biology. Students have the opportunity to relate what they learn to what is happening around them, such as new cures for disease (as well as their outbreaks), applications of genetic engineering and stem cells, and various health and environmental issues that dominate the headlines.

How will I be assessed?

Biology is assessed in terms of three written papers:

Core:

Paper 1 Multiple Choice (45 minutes - weight 30%) Paper 3 Theory (1 hour 15 minutes – weight 50%)

Paper 6 Alternative to Practical (1 hour – weight 20%)

Extended:

Paper 2 Multiple Choice (45 minutes – weight 30%) Paper 4 Theory (1 hour 15 minutes – weight 50%)

Paper 6 Alternative to Practical (1 hour – weight 20%)

Future Opportunities?

Biology is essential to anyone planning to study medicine, veterinary science, dentistry, physiotherapy or any health science at third level.

One of the aims of the course is to develop abilities and skills that are not only relevant to the study and practice of Biology, but which are also useful in everyday life. The course complements IGCSE Geography, PE and Chemistry.

IGCSE Physics (Exam Board: Cambridge, Syllabus Code: 0625) is an optional course that is offered to all students entering Year 10 at Byron College.

Why study Physics at IGCSE Level?

Studying physics at IGCSE Level will enable learners to:

- Have an enjoyable and worthwhile educational experience for all learners, whether or not they go on to study physics beyond this level.
- Better understand the technological world, with an informed interest in scientific matters
- Develop attitudes relevant to physics such as objectivity, enquiry and inventiveness.
- Acquire sufficient knowledge and understanding to become confident citizens in a technological world and develop an informed interest in scientific matters
- Be suitably prepared for studies beyond IGCSE

What will I learn?

Learners will develop an understanding of scientific phenomena, facts, laws, definitions, concepts and theories. They will also develop their experimental skills and their problem-solving ability. Specifically, in the first year we study the topics mechanics, thermal physics and electricity. During the second year the topics taught are electromagnetism, waves and atomic physics.

How will I be assessed?

Physics is assessed in terms of three written papers:

Core:

Paper 1 Multiple Choice (45 minutes - weight 30%) Paper 3 Theory (1 hour 15 minutes – weight 50%)

Paper 6 Alternative to Practical (1 hour – weight 20%)

Extended:

Paper 2 Multiple Choice (45 minutes – weight 30%) Paper 4 Theory (1 hour 15 minutes – weight 50%)

Paper 6 Alternative to Practical (1 hour – weight 20%)

Future opportunities?

Physics is an essential subject not only to those who want to study Physics at a higher level, but also to those who wish to study Electrical-, Electronic-, Computer-, Mechanical- and Civil- Engineering, and in general any technology oriented degree.

IGCSE Chemistry (Exam Board: Cambridge, Syllabus Code: 0620)

Why study Chemistry at IGCSE Level?

The aims of the Cambridge IGCSE in Chemistry are to encourage students to:

- Develop enthusiasm for Chemistry, building further on the knowledge that has been acquired in KS3.
- Develop deeper understanding of different areas of the subject, such as inorganic and organic chemistry and become able to relate between them.
- Become aware of the contribution of chemistry in the modern society and stimulate awareness on environmental issues.
- Encourage critical thinking by combining ideas across the curriculum and with other sciences. Induce interest in further study of Chemistry at A-level.

What will I learn?

In the first year we study some basic concepts of inorganic and physical chemistry and then during the second year we concentrate more on certain aspects of organic chemistry, links between the different areas of the subject and we allow plenty of time for past paper practice. The Cambridge IGCSE in Chemistry compliments the other sciences and promotes some essential critical thinking skills which are required for further studies at A-level.

How will I be assessed?

Chemistry is assessed in terms of three written papers:

Core:

Paper 1 Multiple Choice (45 minutes - weight 30%) Paper 3 Theory (1 hour 15 minutes – weight 50%)
Paper 6 Alternative to Practical (1 hour – weight 20%)

Extended:

Paper 2 Multiple Choice (45 minutes – weight 30%) Paper 4 Theory (1 hour 15 minutes – weight 50%)
Paper 6 Alternative to Practical (1 hour – weight 20%)

Future Opportunities?

The Cambridge IGCSE in Chemistry is addressed to students with a genuine interest in science, who consider pursuing further studies in the field of sciences at University. Particularly, in the fields of Chemistry, Environmental Science, Dentistry, Medicine, Veterinary Medicine, Sports Science, Forensic Science, Engineering, etc.

The Cambridge IGCSE in Chemistry is also a valuable option for students who wish to study a balanced set of IGCSEs.

IGCSE Science - Combined (Exam Board: Cambridge, Syllabus Code: 0653)

Why study Combined Science at IGCSE Level?

Cambridge IGCSE Combined Sciences gives learners the opportunity to study Biology, Chemistry and Physics, each covered in separate syllabus sections. It is a single award qualification, earning one grade. Learners gain an understanding of the basic principles of each subject through a mix of theoretical and practical studies, while also developing an understanding of the scientific skills essential for further study.

The aims of the Cambridge IGCSE in Combined Science are to encourage students to:

- learn how science is studied and practiced
- become aware that the results of scientific research can have both good and bad effects on individuals, communities and the environment
- understand the technological world in which they live, and take an informed interest in science and scientific developments

What will I learn?

In Biology you will learn about the Characteristics of living organisms, Cells, Biological molecules, Enzymes, Plant nutrition, Animal nutrition, Transport, Gas exchange and respiration, Coordination and response, Reproduction, Organisms and their environment, Human influences on ecosystems.

In Chemistry you will learn about the particulate nature of matter, Experimental techniques, Atoms, elements and compounds, Stoichiometry, Electricity and chemistry, Energy changes in chemical reactions, Chemical reactions, Acids, bases and salts, The Periodic Table, Metals, Air and water, Organic chemistry.

In Physics you will learn about Motion, Work, energy and power, Thermal Physics, Properties of waves, including light and sound, Electrical quantities, Electric circuits.

The Cambridge IGCSE in Combined Science promotes some essential critical thinking skills.

How will I be assessed?

The Combined Science IGCSE is assessed in terms of three written papers:

Core:

Paper 1 Multiple Choice (45 minutes - weight 30%) Paper 3 Theory (1 hour 15 minutes – weight 50%)

Paper 6 Alternative to Practical (1 hour – weight 20%)

Extended:

Paper 2 Multiple Choice (45 minutes – weight 30%)

Paper 4 Theory (1 hour 15 minutes – weight 50%) Paper 6 Alternative to Practical (1 hour – weight 20%)

Future Opportunities?

The Cambridge IGCSE in Combined Science is a valuable option for students who wish to study a balanced set of IGCSEs and is addressed to students who do not wish to study any of the three sciences (physics-chemistry-biology) at A- level.

IGCSE Computer Science (Exam Board: Cambridge, Syllabus Code: 0478)

Why study Computer Science at IGCSE level?

IGCSE Computer Science learners study the principles and practices of computing and gain confidence in computational thinking and programming. They learn to program by writing computer code and they develop their understanding of the main principles of problem-solving using computers.

What will I learn?

The aims are to develop:

- computational thinking, that is thinking about what can be computed and how, and includes consideration of the data required
- understanding of the main principles of solving problems by using computers
- understanding that every computer system is made up of sub-systems, which in turn consist of further sub-systems
- understanding of the component parts of computer systems and how they interrelate, including software, data, hardware, communications and people
- skills necessary to apply understanding to solve computer-based problems using a high-level programming language.

How will I be assessed?

The Scheme of the Assessment is as follows: Paper 1: Theory (60% of total marks)

Paper 2: Problem-solving and Programming (40% of total marks)

Future opportunities?

Cambridge IGCSE Computer Science is an ideal foundation for further study in Computer Science. Understanding the principles of Computer Science provides learners with the underpinning knowledge required for many other subjects in science and engineering, and the skills learnt can also be used in everyday life.

IGCSE Additional Mathematics (Exam Board: Cambridge, Syllabus Code: 0606) is an optional course that is offered at IGCSE level. It is intended for high ability learners who are likely to achieve grade A*, A or B in the IGCSE Mathematics examination.

Why study **ADDITIONAL Mathematics** at IGCSE Level?

Cambridge IGCSE **ADDITIONAL Mathematics** syllabus aims to mature a pupil's overall approach to mathematics, to give depth to their understanding of the mathematical foundations of other IGCSE courses, such as Mathematics, Science and Computer Science, so as to better prepare them to handle the demands of the "Standard" A-level Mathematics course and the A-level *Further Mathematics* course.

What will I learn?

The Cambridge IGCSE in **ADDITIONAL Mathematics** programme of study aims to consolidate and extend a pupil's mathematical skills allowing them to better appreciate the interconnectedness of mathematical knowledge and help them understand certain mathematical theories in more depth. The programme of study includes topics that are part of the "Standard" AS/A-level Mathematics course, giving students a preview of AS/A-level study that helps to mature their mathematics skills over a two-year period before starting their AS/A-level studies. However, the aim of the **ADDITIONAL Mathematics** programme of study is not to merely introduce "A-level" topics to an earlier age group, but rather, it is to train students to apply their mathematical skills in problem solving contexts that are a significant step beyond that which the **EXTENDED Mathematics** course exposes them to.

How will I be assessed?

The Cambridge IGCSE in **ADDITIONAL Mathematics** requires students to sit two equally weighted two-hour examination papers at the end of year-11, a non-calculator and a calculator paper. Students can obtain Grades A* to E.

Future Opportunities?

Students who study the **ADDITIONAL Mathematics** course are significantly better prepared to study courses at A-level that have mathematical content. They may be considering study the A-level in **Further Mathematics**. Such students then tend to excel in their studies in Engineering, Sciences, Economics, Management or Mathematics at University.

GCSE (9-1) Physical Education (Exam Board: Edexcel, Syllabus Code: Level 1/Level 2 GCSE (9 - 1) in Physical Education (1PE0)

Why study Physical Education GCSE?

Physical Education is the right subject for you if you enjoy:

- learning about the world of Sport and Physical Education
- keeping up to date with sporting issues
- performing and developing your own practical performances
- communicating and explaining your ideas
- independent thinking, reflective learning and problem solving

What will I learn?

You will learn about:

- the diverse nature of sport
- the link between physical activity and health
- how athletes need to adapt physically and mentally to the changing sports environment
- sporting success and failure
- investigating the impact of technology and commercialism on participation and performance
- how to refine and analyze your own performance
- How to make decisions about what to do in your own fitness and training

How is the course structured?

The course consists of four components:

- Component 1 – you will learn about physiological and biomechanical workings of the body and explore how to apply this to your physical training
- Component 2 – you will develop knowledge about the link between health and performance and explore the contribution that physical activity and sport make to health, fitness and well-being
- Component 3 - you will develop your practical performance skills in three different physical activities
- Component 4 - you will complete a Personal Exercise Programme (PEP) in one of your chosen sports. You will develop your ability to analyze and evaluate your personal fitness to improve/optimize performance in physical activity and sport.

How will I be assessed?

- **Paper 1** You will tackle multiple-choice, short answer and extended writing questions on the body systems and physical fitness –this is the content you study in Component 1
- **Paper 2** You will tackle multiple-choice, short answer and extended writing questions on the link between health and performance –this is the content you study in Component 2

Non-Examined Assessment

This will usually take place in our school. You will be assessed in the practical performance of your three chosen sports and your Personal Exercise Programme (PEP).

This work will also be externally moderated -this is the content you study in Component 3 and 4.

Future Opportunities?

GCSE Physical Education prepares you for progression to further study or the next step towards the world of work:

- you will have developed transferable skills, including numeracy, communication and an understanding of practical performances
- you will have developed a mix of scientific and social knowledge putting you in an excellent position to access a wide range of sport and non-sport related courses
- you will have knowledge, skills and understanding to prepare you for a career in this dynamic employment sector
- you will have skills to take to a wider range of careers from management, public sector organisations, businesses and charities

GCSE (9-1) Art and Design (Exam Board: Edexcel, Syllabus Code: 1FA0)

Why study Art and Design at GCSE?

Art and Design equips students with the skills to enjoy, produce and engage with the visual arts throughout their lives. It allows to students to explore both contemporary and historical sources of art by engaging practically and contextually with different styles and art movements, develop their own visual style, develop the skills of selecting their best and most appropriate work for presentation and prepare for a career in the arts and the wider creative fields.

What will I learn?

At Byron College, we offer the GCSE Art and Design under the 'Fine Art' and 'Art, Craft and Design' titles to accommodate for as many different interests, technical skills and inclinations. Students can develop work using a variety of art forms such as drawing, installation, lens-/light-based media, mixed-media, digital media or applications, Land Art, printing, painting, sculpture and combinations of these areas of study.

Students will develop practical knowledge and understanding of how sources inspire the development of ideas, the use of observational skills to record from sources and communicate ideas, the use of formal elements (*line, tone, shape, form, scale, colour, texture, pattern*) and visual communication through a variety of approaches the characteristics, properties and effects of using different media, materials, techniques and processes.

How will I be assessed?

Component 1: Personal Portfolio that accounts for 60% of your total grade

Component 2: Externally Set Assignment that accounts for 40% of your total grade and includes an exam for which you are asked to produce a final artwork during a 10-hour exam period

Future Opportunities?

You may continue to the A-Level in Art & Design course which can lead you to a wide range of careers in the Art and Design fields. You may wish to study for a university BA degree in Fine Art, Architecture, Art History, Photography, Textiles, Illustration, Visual Culture, Social Anthropology, Film and Design. Design includes an extensive range of evolving fields such as Graphic Design, Product & Furniture Design, Interior Design, Fashion Design, Stage Design, Games Design, Jewellery Design, Ethical Design. You may also use your Art & Design studies to strengthen your creative skills and thinking if you would like to study or work for the wider creative industries such as Advertising, Public Relations, Media & Communication, Arts Journalism, Marketing, Branding & Identity, Fashion Marketing, Fashion Buying & Merchandising, Virtual Reality, Music & Sound Arts, Contemporary Theatre & Performance etc.

The study of art can also help you develop transferable skills that you can take into various careers or jobs. At Byron, you may gain experience by entering art competitions, taking part in the organisation of art exhibitions, productions and school events or simply by creating art projects with your friends to exhibit at school.

IGCSE Drama (Exam Board: Cambridge, Syllabus Code: 0411)

Why Study Drama at IGCSE?

IGCSE Drama has a written and practical component. Students gain confidence through performing and refining their practical skills in addition to supporting the study of English by the inclusion of textual analysis in the curriculum. The study of Drama supports progression in all fields as students gain essential interpersonal skills, creative problem-solving skills as well as developing personal performance for those who wish to progress to careers in the Performing Arts.

The IGCSE Syllabus engages with many other academic disciplines and helps students to make links between practice and theory. For example, the practical application of Maths and Science in set design, researching the historical, social, cultural and political context in which plays were written and using other Arts practices such as fine Art and music to enhance performance.

What will I learn?

Over the duration of the two-year course, you will explore and develop an understanding of

- the elements of practical drama
- how to work with extracts from published plays as an actor, director and designer
- how to devise, develop and structure your own original dramatic material from stimuli such as short titles, poems, pictures, songs, historical events and stories
- how to evaluate your contribution to the devising process and the success of the final piece
- how to use staging and design as part of a dramatic performance
- individual and group performance skills and how they are applied to create character and communicate meaning to an audience.

How will I be assessed?

All candidates will undertake two components:

Component 1-Externally Assessed: (40%) Written Exam 2hours 30 mins

Students will answer questions on a play extract that is pre-released prior to the exam and studied in class.

Component 2: (60%) Coursework

Students submit three pieces of practical work to include: an individual performance based on a play extract, a group performance based on a play extract, a group performance based on an original devised piece.

Future Opportunities?

Drama develops key skills that are essential for the further study of any Performance Art. Increasingly, Drama is studied not only by students who have an interest in Performing Arts but also by students who will need a high level of interpersonal skills for their chosen career paths e.g., Medicine, Teaching, Law and management positions in all fields.