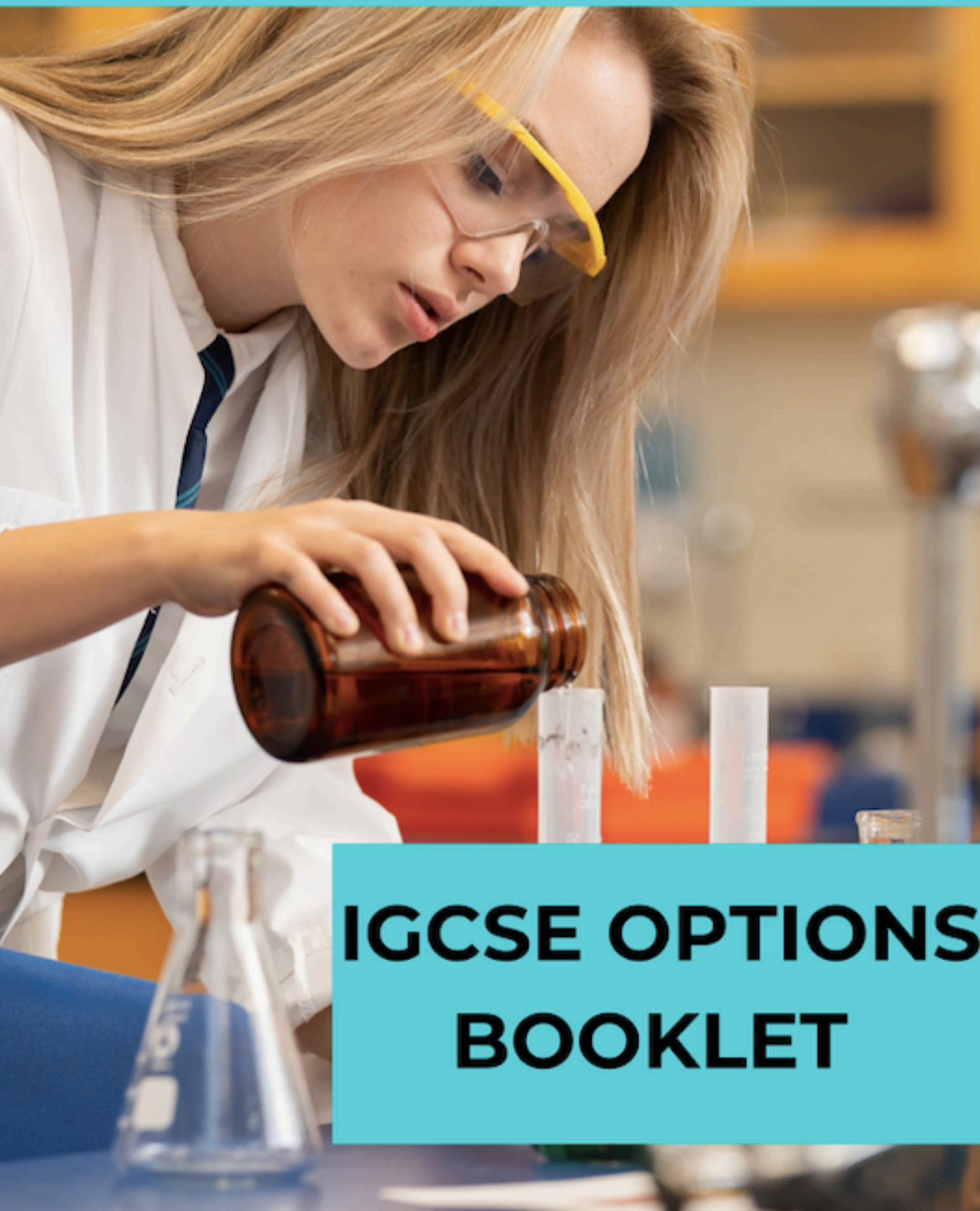




BRITISH INTERNATIONAL SCHOOL  
OF BOSTON

A NORD ANGLIA EDUCATION SCHOOL



# IGCSE OPTIONS BOOKLET

## CONTENTS

Welcome from the Head of Middle and High School .....	3
Our BISB Options Pathway .....	4
Introduction .....	6
Which Subjects do I take? .....	7
IGCSE Subject Options .....	8
Selecting IGCSE Subjects .....	8
English Language .....	9
English Literature .....	10
Maths .....	11
History .....	13
Biology .....	14
Chemistry .....	15
Physics .....	16
Modern Foreign Languages (French and Spanish) .....	17
Art .....	18
Computer Science .....	19
Business Studies .....	20
Drama .....	21
Geography .....	22
Music .....	23
Physical Education .....	24

## Welcome from the Head of Middle and High School

Dear Year 9 students and parents,

A very warm welcome to the BISB IGCSE Handbook. The transition from Year 9 into Year 10 is one that is often overshadowed by the transitions from Year 6 into Year 7 and from IGCSE into IB study, but we feel it is equally important and influential, particularly as it is the beginning of our students' High School journeys. We will be taking great care to guide you through this process to ensure that you feel informed and well provided for.

During any transition period students need plenty of support and guidance to ensure they make good choices for their future and for their wellbeing. Thus, it is essential that the life they plan for themselves has balance, in terms of academic pursuits as well as other extracurricular activities.

Here at BISB, our vision is 'to nurture lifelong learners and inspire global citizenship within a rigorous and supportive academic environment.'

For students to be lifelong learners they must have a voice and the self-awareness to make appropriate decisions and choices in areas such as subject electives. The very fact that we know our students so well means that we are well-positioned to counsel each student effectively. The BISB Year 9 Options process is designed to promote positive choices and confidence-building decision-making for our students as they venture forward into the next exciting chapter of their school journey.

You will find in this handbook a wealth of information about IGCSEs, and an outline of the support available in our school for all Year 9 students as they take this important step. If there are any questions or queries, parents and students are encouraged to speak to us - it is important that the dialogue continues throughout the Options process and we would be delighted to meet with you to discuss this important stage of your child's education. We are confident that our IGCSE students will thrive and succeed at BISB, in our happy, supportive, friendly and close community. We look forward to challenging and inspiring them to be the best they can be, and to celebrate their achievements.

Mr. Aidan Edmanson

Head of Middle and High School

## Introduction

The academic program for students in the first 2 years of high school at the British International School of Boston consists of 10 curricular subjects, culminating in IGCSE (International General Certificate of Secondary Education) examinations at the end of Year 11 (Sophomore year).

IGCSE examinations are the most popular internationally recognized qualification for school students, in the 14 to 16-year-old age group. They are taken by students in over 120 countries worldwide. Recognized by academic institutions and employers around the world, the IGCSE prepares students for further academic work, including the International Baccalaureate (IB) Diploma Program. IGCSEs embed an additional element of rigor, as they are externally accessed. In BISB's case, the external examination boards which we use are Cambridge International Examinations and Pearson Edexcel. Again, these are world-recognized.



Please see the table below which looks to demonstrate the relationship between CIE grades (reported as letters) and Edexcel grades (reported as numbers). As well as this, it incorporates a best-fit translation, translating these into US grades or the equivalent GPA.

IGCSE Grade	US grade	Equivalent GPA
A*	A or N/A	4.0 or 4.3 (weighted)
A	A	4.0
B	A-	3.7
C	B	3.0
D	C+	2.3
E	C	2.0
F	D+	1.3
G	D	1.0
U	E/F	0.0

With the above in mind, the time is approaching for students to select their IGCSE courses. This booklet explains the principles to bear in mind when discussing options. It is important that time is allocated to consider carefully the subjects available to study in Years 10 and 11 (equivalent to Grades 9 and 10).

Key advice for our students at this stage is 'to keep all doors open'. A broad, balanced curriculum is vital. It is important at this stage to look forward and not back, so choices should be made based on future university and career aspirations.

The core curriculum studied by all students consists of English, English Literature, Mathematics, and the Sciences, as well as History and French or Spanish, so these subjects are compulsory. Now is the time to consider the range of other subjects on offer and select **two electives** to complement the core curriculum.

## Which Subjects do I take?

Students at BISB follow a compulsory core of 7 subjects and select 3 from a range of optional subjects, at least one of which must be a modern foreign language. In addition to providing sufficient breadth of curriculum, which is appealing for universities, the students will have the opportunity to study their subjects in sufficient depth to provide a foundation for their IBDP level subjects. They not only build understanding and knowledge required for progression, but also learning and thinking skills that help students become independent learners and equip them for life.

## IGCSE Subject Options

### Compulsory Subjects

English Language

English Literature

Mathematics

History

Biology

Chemistry

Physics

Physical Education (non-examination course- recreational sport and leadership)

### Electives (Choose 3, at least one of which must be a modern foreign language)

Art

Business Studies

Computer Science

French

Drama

Geography

Music

Physical Education

Spanish



## Selecting IGCSE courses

1. Study the following pages carefully. They indicate both the compulsory and optional subjects that BISB offers at the IGCSE level. Some of the options can only be studied at IGCSE level. However, as students study on average 10 subjects at IGCSE level and only 6 at IBDP level, this is not a problem.

2. Read the course outlines; these give an idea of the Key Aims of that subject and how they are assessed. Not all subjects have terminal examinations, some have coursework and others don't.

Each page has a brief outline of the type of topics studied.

3. Talk to the members of staff concerned so that they know exactly what is expected and whether the course would be a good fit for them.



## English Language

**The aims and objectives of this qualification are to enable students to:**

- read a wide range of texts fluently and with good understanding;
- read critically and use knowledge gained from wide reading to inform and improve their own writing;
- write effectively and coherently using Standard English appropriately;
- use grammar correctly, punctuate and spell accurately;
- acquire and apply a wide vocabulary alongside knowledge and understanding of grammatical terminology, and linguistic conventions for reading, writing and spoken language;
- listen to and understand spoken language, and use spoken Standard English effectively. Spoken language will be reported as a separate grade on the student's certificate.

### Syllabus Content

Reading Comprehension:

- Study anthology texts and learn to read unseen texts;
- Write about both anthology texts and unseen texts analytically;
- Compare the ways in which texts create meaning.

**Writing Skills:**

- Produce a piece of creative writing;
- Prepare for response to transactional writing exam task.

Link to specification:

## English Literature

The aims and objectives of this qualification are to enable students to:

- Engage with and develop the ability to read, understand and respond to a wide range of literary texts from around the world;
- Develop an appreciation of the ways in which writers achieve their literary effects;
- To develop the skills needed for literary study;
- Explore, through literature, the cultures of their own and other societies • find enjoyment in reading literature and understand its influence on individuals and societies.

### Syllabus Content:

- The study of prose texts. (Novels may include Things Fall Apart);
- The study of drama. (Plays may include An Inspector Calls, Macbeth, or A View from the Bridge);
- The study of poetry from a range of periods and cultures.

Students work to develop and understand the social, political and historical context of literature, know how to interpret subtexts and layers of meaning, and appreciate how writers use language, structure, form and characterisation.

Link to specification:





## Mathematics

The BISB High School curriculum is designed to build upon the previous years' learning with a greater depth and variety in the mathematical concepts. Some students take the IGCSE course in one year, and then take the Additional Mathematics course.

### IGCSE Mathematics

#### Students will learn to:

- Develop their oral, written and practical skills in a way which encourages confidence, satisfaction and enjoyment of mathematics.
- Develop their problem-solving skills and their ability to select the appropriate methods when solving a mathematics problem.
- Acquire the knowledge and preparation to further their studies.

#### Syllabus Content

- Development of algebra skills to include topics such as quadratics, proportional reasoning, rational equations, factorization, and differential calculus.
- Broader investigation into shape and space including trigonometry, Pythagoras, similar and congruent shapes, as well as further learning on area and volume of 3D shapes.
- A variety of techniques to allow pupils to investigate and critique data. These include histograms, cumulative frequency and box plots.
- Exploration of further topics that continue from the BISB middle school curriculum including sets and group theory, probability and vectors.

Link to syllabus:

### Additional Mathematics

Please note that this course is not **elective**. Students are selected, based on their Mathematics ability, attitude and assessment scores, to take this course. In Year 10, students take the IGCSE course, as above, and then do Additional Mathematics in Year 11.

#### Students will learn to:

- Develop their oral, written and practical skills in a way which encourages confidence, satisfaction and enjoyment of mathematics.
- Refine and enhance their problem-solving skills in preparation for the IB
- Acquire important skills and knowledge to best prepare for higher level courses at IB

#### Syllabus Content

- Development of algebraic skills, such as quadratic inequalities, cubic equations
- In depth analysis of functions including composite, modulus and inverses.

- Exploration of further topics that continue from IGCSE, including calculus, vectors and trigonometry
- Extension content including logarithms, exponentials and the unit circles.

Link to syllabus:



## History

### **This syllabus aims to:**

- Stimulate interest in and enthusiasm about the past.
- Promote the acquisition of knowledge and understanding of past human activity.
- Ensure that the students' knowledge is rooted in an understanding of the nature and use of historical evidence.
- Promote an understanding of the nature of cause and consequence, continuity and change, and similarity and difference.
- Provide a sound basis for further study and the pursuit of personal interest encourage international understanding.
- Encourage the development of linguistic and communication skills.

### **Syllabus Content**

- Development of dictatorship: Germany, 1918-45
- A world divided: Superpower relations, 1945-62
- The Vietnam War 1945-75
- Changes in Medicine, 1845-1948

Link to specification:

## Biology

### Syllabus overview

Cambridge IGCSE Biology helps learners to understand the biological world in which they live and take an informed interest in science and scientific developments. The syllabus includes the basic principles and concepts that are fundamental to the subject, some current applications of biology, and a strong emphasis on practical skills.

The aims are to enable students to:

- acquire scientific knowledge and understanding of scientific theories and practice
- develop a range of experimental skills, including handling variables and working safely
- use scientific data and evidence to solve problems and discuss the limitations of scientific methods
- communicate effectively and clearly, using scientific terminology, notation and conventions
- understand that the application of scientific knowledge can benefit people and the environment
- enjoy science and develop an informed interest in scientific matters which support further study.

### Syllabus Content

The Biology course can be split into these subject areas:

Candidates study the following topics:

- Characteristics and classification of living organisms
- Organisation of the organism
- Movement into and out of cells
- Biological molecules
- Enzymes
- Plant nutrition
- Human nutrition
- Transport in plants
- Transport in animals
- Diseases and immunity
- Gas exchange in humans
- Respiration
- Excretion in humans
- Coordination and response
- Drugs
- Reproduction
- Inheritance
- Variation and selection
- Organisms and their environment
- Human influences on ecosystems
- Biotechnology and genetic modification

[Link to syllabus:](#)

# Chemistry

## Syllabus overview

Cambridge IGCSE Chemistry helps learners to understand the technological world in which they live and take an informed interest in science and scientific developments. The syllabus includes the basic principles and concepts that are fundamental to the subject, some current applications of chemistry, and a strong emphasis on practical skills.

The aims are to enable students to:

- acquire scientific knowledge and understanding of scientific theories and practice
- develop a range of experimental skills, including handling variables and working safely
- use scientific data and evidence to solve problems and discuss the limitations of scientific methods
- communicate effectively and clearly, using scientific terminology, notation and conventions
- understand that the application of scientific knowledge can benefit people and the environment
- enjoy science and develop an informed interest in scientific matters which support further study.

## Syllabus Content

The Chemistry course can be split into these areas of study:

- States of matter
- Atoms, elements and compounds
- Stoichiometry
- Electrochemistry
- Chemical energetics
- Chemical reactions
- Acids, bases and salts
- The Periodic Table
- Metals
- Chemistry of the environment
- Organic chemistry
- Experimental techniques and chemical analysis

Link to syllabus:





## Physics

### Syllabus overview

Cambridge IGCSE Physics helps learners to understand the technological world in which they live, and take an informed interest in science and scientific developments. The syllabus includes the basic principles and concepts that are fundamental to the subject, some current applications of physics, and a strong emphasis on practical skills.

The aims are to enable students to:

- acquire scientific knowledge and understanding of scientific theories and practice
- develop a range of experimental skills, including handling variables and working safely
- use scientific data and evidence to solve problems and discuss the limitations of scientific methods
- communicate effectively and clearly, using scientific terminology, notation and conventions
- understand that the application of scientific knowledge can benefit people and the environment
- enjoy science and develop an informed interest in scientific matters which support further study.
- 

### Syllabus Content

The Physics course can be split into these areas of study:

- Motion, forces and energy
- Thermal physics
- Waves
- Electricity and magnetism
- Nuclear physics
- Space physics

Link to syllabus:



## Modern Foreign Languages (French or Spanish)

### This syllabus aims to:

- Develop the ability to use the language effectively for purposes of practical communication within all countries where the language is spoken.
- Form a sound basis of the skills, language and attitudes required for work and leisure.
- Offer insights into the culture and civilization of countries where the language is spoken.
- Develop a fuller awareness of the nature of language and language learning.
- Provide enjoyment and intellectual stimulation.

### Syllabus Content

Students will cover the 5 topic areas listed below. These have been divided into subtopics and while covering them, the curriculum allows for practice on the 4 skills of listening, speaking, reading and writing.

- Everyday activities
- Personal and social life
- The world around us
- The world of work
- The international world

Link to French syllabus:

Link to Spanish syllabus:

## Art

**The aims and objectives of this qualification are to enable students to:**

- an ability to record from direct observation and personal experience
- an ability to identify and solve problems in visual and/or other forms
- creativity, visual awareness, critical and cultural understanding
- an imaginative, creative and personal response
- confidence, enthusiasm and a sense of achievement in the practice of art and design
- growing independence in the refinement and development of ideas and personal outcomes
- engagement and experimentation with a range of media, materials and techniques, including new media and technologies, where appropriate
- experience of working in relevant frameworks and exploration of manipulative skills necessary to form, compose and communicate in two and/or three dimensions
- a working vocabulary relevant to the subject and an interest in, and a critical awareness of, other practitioners, environments and cultures
- investigative, analytical, experimental, interpretative, practical, technical and expressive skills which aid effective and independent learning.

**The IGCSE Art and Design has 2 component requirements:**

All candidates take:

**Component 1:** Coursework 50%

Candidates research, develop and realise a project from one or more of the areas of study and should explore a theme.

There are two parts to the coursework:

- a portfolio
- a final outcome.

Externally assessed

**Component 2:** 8 hours Externally Set Assignment 50%

Candidates respond to one starting point set by Cambridge International. Candidates may produce work from the same areas of study as Component 1, but they do not have to.

There are two parts to the assignment:

- supporting studies
- a final outcome, produced during a supervised test of 8 hours' total duration.

Link to syllabus:

# Computer Science

## Syllabus overview

Cambridge IGCSE Computer Science helps learners develop an interest in computational thinking and an understanding of the principles of problem-solving using computers. They apply this understanding to create computer-based solutions to problems using algorithms and a high-level programming language. Learners also develop a range of technical skills, and the ability to effectively test and evaluate computing solutions.

The aims are to enable students to develop:

- computational thinking skills
- an understanding of the main principles of solving problems using computers
- the skills necessary to solve computer-based problems using a high-level programming language
- an understanding of the component parts of computer systems and how they interrelate
- an understanding of the internet as a means of communication and its associated risks
- an understanding of the development and use of automated and emerging technologies

## Syllabus Content

The Computer Science course can be split into these areas of study:

- Computer systems
  - Data representation
  - Data transmission
  - Hardware
  - Software
  - The internet and its uses
  - Automated and emerging technologies
- Algorithms, programming and logic
  - Algorithm design and problem-solving
  - Programming
  - Databases
  - Boolean logic

## Syllabus Content

Link to syllabus:

## Business Studies

Business Studies is concerned with the actions and decisions taken by firms and looks at the work that various departments, such as marketing, finance, human resources, and production carry out. The course also looks at how outside activities affect businesses, and, in turn, how businesses react to these. For example, the effect of changes in government policy, competition and demand, and ethical issues, such as 'green trading'.

Students will learn about the important decisions that businesses face in modern, competitive, and, often global, environments.

### Syllabus Content

Business Studies includes topics on the following:

- Understanding business activity;
- People in business;
- Marketing;
- Operations Management;
- Financial Information and decisions

[https://qualifications.pearson.com/content/dam/pdf/International%20GCSE/Business%20Studies/2017/specification-and-sample-assessment/9781446942765\\_International\\_GCSE\\_Business\\_Specification.pdf](https://qualifications.pearson.com/content/dam/pdf/International%20GCSE/Business%20Studies/2017/specification-and-sample-assessment/9781446942765_International_GCSE_Business_Specification.pdf)



## Drama

### This syllabus aims to:

- Develop candidates' understanding of 'Theatre' and 'Dramatic Performance' through practical and theoretical study.
- Enable candidates to create dramatic work from text or chosen stimuli.
- Equip candidates with a repertoire of performance skills and knowledge of dramatic genres.
- Develop an understanding of the processes leading to performance and then the ability to evaluate stagecraft.
- Hone skills of collaboration, especially in the arena of devising work.

### Syllabus Content

The drama course will include:

- Instruction on skills of acting, in front of a live audience.
- Instruction on successful skills of devising work.
- The planning, rehearsal, and performance of dramatic extracts. These will include:
  - Performance of a published play (Group work),
  - Performance of a monologue (Solo work),
  - Performance of a devised piece (Group work).
  - Texts in Practice & Theory (Written Exam)

\*Please note, this course will need a minimum number of students to run.

[Link to syllabus](#)

## Geography

**The syllabus aims are to encourage students to develop:**

- A sense of place and an understanding of relative location on a local, regional and global scale.
- An awareness of the characteristics and distribution of a selection of contrasting physical and human environments.
- An understanding of some of the processes affecting the development of such environments.
- An understanding of the spatial effects of the ways in which people interact with each other and with their environments.
- An understanding of different communities and cultures throughout the world and an awareness of the contrasting opportunities and constraints presented by different environments.

### **Syllabus Content**

IGCSE Geography examined across three components:

1. Geographical themes- written exam (45°/o)
2. Geographical skills- written exam (27.5°/o)
3. Coursework completed in Year 11(27.5°/o)

Additionally, it is important to recognize that geographical skills and analysis will be assessed across all three components, although hyper focused in component two.

[Link to syllabus](#)

## Music

### The syllabus aims to:

- Help Students listen to, perform and compose music, encouraging aesthetic and emotional development, self-discipline and creativity.
- Help students enhance their appreciation and enjoyment of music, an achievement that forms an ideal foundation for future study and enhances life-long musical enjoyment.
- Help students develop a perceptive, sensitive and critical response to the main historical periods and styles of Western music.
- Help students recognize and understand the music of various non-- Western traditions.

### Syllabus Content:

IGCSE Music examined across three components:

1. Music Theory, Music History, Music from around the World.
2. Solo and ensemble performance practice.
3. Music Composition.

[Link to syllabus](#)



## Physical Education

Throughout the 2-year course students will be encouraged to develop:

- Their ability to plan, perform and evaluate physical activities.
- Their knowledge, skills and understanding of a range of relevant physical activities.
- An understanding of effective and safe performance.
- An understanding of the role sport and physical activity in society and in the wider world.
- An enjoyment for physical activity.

### Grading Breakdown

50% of the grade come from Paper 1

50% of the grade come from 4 practical sports from at least two different sports categories (listed below)

### Syllabus Content

- In-depth practical studies of 4 different sports from the list below. (Students can elect to study other sports in their own time outside of school as well).
- Theoretical studies that include: skill, motivation, bones, joints, muscles, circulatory and respiratory systems, fitness, physique, drugs, diet, health, injuries, training, media, global events and more.
- Practical Sports for iGCSE PE.
- Games Category: Association Football, Badminton, Baseball/Rounders/Softball, Basketball, Cricket, Golf, Handball, Hockey, Lacrosse, Netball, Rugby League/Rugby Union, Squash, Table Tennis, Tennis and Volleyball.
- Gymnastics Activities: Artistic Gymnastics (floor and vault), Rhythmic Gymnastics, Individual Figure Skating and Trampolining.
- Dance Activities: Dance.
- Athletic Activities: Cross-Country Running, Cycling, Rowing/Skulling, Track and Field Athletics and Weight Training for Fitness.
- Outdoor and Adventurous Activities: Canoeing, Hill Walking/Orienteering, Horse Riding, Mountain Biking, Rock Climbing, Sailing, Skiing/Snowboarding and Windsurfing.
- Swimming: Competitive Swimming, Life Saving/Personal Survival and Water Polo.
- Combat Activities: Judo or Taekwondo.

[Link to syllabus](#)