

AS and A Level *Guide*



COMPASS INTERNATIONAL SCHOOL
DOHA
A NORD ANGLIA EDUCATION SCHOOL

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Message from the Head of Secondary

Dear Students,

The purpose of this booklet is to explain the options, processes and subjects available at AS and A Level at Themaid Campus.

This is a very important time for you and there's a lot to think about in deciding on the best programme for your abilities, interests and ambitions. The decisions you make now will set you on a course that can be difficult to change, so it's important to make the right subject choices at this early stage. Some points to consider:

- Are you interested in the topics you choose to study?
- Do you have the skills you need?
- Can you handle the way the subject is assessed?

Traditionally students will choose 4 AS subjects in Year 12 and continue with 3 subjects to A Level.

Many reasons may motivate you to opt for a subject at AS or A Level: Maybe you find it easy as the subject's logic makes sense to you? Maybe the subject content awakes a deep interest in you? Maybe you need the subject to reach some further studies and professional aspirations? AS and A Levels are tough so making the right choices based on your academic strengths and future aspirations is essential.

It is important that you spend time exploring some university websites such as <https://www.theuniguide.co.uk/> and individual university sites to increase your awareness of admissions requirements for the courses you intend to study after Secondary School. If you already have a country and course in mind, or more specifically a list of universities you would like to target, do make sure to research their admissions requirements so that you are well informed and prepared. Your teachers offer many opportunities to discuss AS or A Level options and further studies, so ensure that you seek out advice from the relevant person.



In addition to your interest in the subject or future professional aspirations, your current performance in the subject area will be considered when you discuss the possibility of studying a subject at AS or A Level. The academic expectations and the demands in terms of study hours, self-discipline and resourcefulness significantly increase between Year 11 and Year 12. A minimum of a Grade C (4) is required to study a subject at AS or A Level, although we would recommend a Grade B (6) or higher. These decisions are made individually on a case by case basis.

For more information on AS and A Level choices, please see <https://www.oxford-royale.com/articles/how-to-choose-a-levels>

Remember that you can access all the syllabus booklets on the Cambridge website: <http://www.cambridgeinternational.org/programmes-and-qualifications/cambridge-advanced/cambridge-international-as-and-a-levels/subjects/>

Please read this booklet carefully as it provides information on available subjects, their curriculum coverage and their assessment. Parent information evenings will offer you and your parents the opportunity to discuss choices with your teachers and give you individual advice.

Simon Porter

Head of Secondary, Themaid Campus

Cambridge International AS Level in Arabic (8680)

Please note: Arabic will only be available at AS Level in Year 12. There will be no A Level Arabic course.

Cambridge International AS Level in languages other than English are accepted by universities and employers as proof of linguistic ability and understanding.

The examinations are designed to assess candidates' linguistic competence and their knowledge of contemporary society. In the exams, candidates will be expected to:

- Understand and respond to texts written in the target language, drawn from a variety of sources such as magazines, newspapers, reports, books and other forms of extended writing
- Manipulate the target language accurately in spoken and written forms, choosing appropriate examples of lexis and structures
- Select information and present it in the target language
- Organise arguments and ideas logically

Content

All textual material used in the examinations will be drawn from the topic areas below, with reference to the country or countries where the language is spoken.

- Human relationships
- Family
- Generation gap
- Young people
- Patterns of daily life
- Urban and rural life
- The media
- Food and drink
- Law and order

- Philosophy and belief
- Health and fitness
- Work and leisure
- Equality of opportunity
- Employment and unemployment
- Sport
- Free time activities
- Travel and tourism
- Education
- Cultural life/heritage
- War and peace
- Social and economic development
- Scientific and medical advances
- Technological innovation
- Environment
- Conservation
- Pollution
- Contemporary aspects of the country or countries where the language is spoken

Assessment

Component 2: Reading and Writing
– 1 hour 45 mins (75%)

Component 3: Essay – 1 hour 30 mins
(25%)



Biology is a rapidly expanding science. It forms the basis of new and exciting fields of study, such as Biotechnology, Genetics and Ecology. Studying A Level Biology will enable a student to follow one of these courses at university. Students wishing to study Medicine, Dentistry or Veterinary Science may also take Biology as one of their A Level choices.

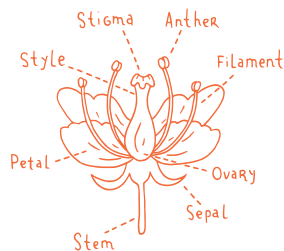
Cambridge International AS and A Level Biology builds on the skills acquired at Cambridge IGCSE (or equivalent) level. The syllabus includes the main theoretical concepts which are fundamental to the subject, some current applications of biology, and a strong emphasis on advanced practical skills. Practical skills are assessed in a timetabled practical examination.

The emphasis throughout is on the understanding of concepts and the application of biology ideas in novel contexts as well as on the acquisition of knowledge. The course encourages creative thinking and problem-solving skills which are transferable to any future career path.

Content

Candidates for Cambridge International AS Level Biology study the following topics:

1. Cell structure
2. Biological molecules
3. Enzymes
4. Cell membranes and transport
5. The mitotic cell cycle
6. Nucleic acids and protein synthesis
7. Transport in plants
8. Transport in mammals
9. Gas exchange



10. Infectious diseases

11. Immunity

AS Level candidates also study practical skills.

Candidates for Cambridge International A Level Biology study the AS topics and the following topics:

12. Energy and respiration

13. Photosynthesis

14. Homeostasis

15. Control and coordination

16. Inheritance

17. Selection and evolution

18. Classification, biodiversity and conservation

19. Genetic technology

A Level candidates also study practical skills.

Assessment

AS Level (end of Year 12)

Paper 1: 40 multiple choice questions
– 1 hour 15 mins

Paper 2: Structured questions
– 1 hour 15 mins

Paper 3: Advanced practical skills (practical) - 2 hours

A Level (end of Year 13)

Paper 4: Structured questions - 2 hours

Paper 5: Planning, analysis and evaluation
– 1 hour 15 mins



The study of Cambridge International AS and A Level Business allows learners to take the first step towards a career in private or public organisations or progress with confidence to a degree in business and management related subjects.

This A Level is a natural progression from the IGCSE Business Studies, although it is possible to take the course with no background in Business. The Cambridge learner at A Level in Business can develop the capacity to analyse characteristics and activities of business organisations and how they respond to the changing demands of their environments. An understanding of how effective managers and leaders develop successful organisations in terms of customer focus and the products/services they offer. The opportunity is given to reflect on how successful businesses engage in the financial and accounting side of organisations. Practices to maximise value for stakeholders are explored and the development of knowledge that relates to strategic planning and decision-making to ensure business survival, change, and sustainable success giving the student a solid foundation for further study.

Content

Candidates for Cambridge International AS Level Business study the following topics:

1. Business and environment • Enterprise • Business structure • Size of business • Business objectives • Stakeholders in a business
2. People in organisations • Management and leadership • Motivation • Human resource management
3. Marketing • What is marketing? • Market research • The marketing mix

4. Operations and project management • The nature of operations • Operations planning • Inventory management

5. Finance and accounting • The need for business finance • Sources of finance • Costs • Accounting fundamentals • Forecasting cash flows and managing working capital

Candidates for Cambridge International A Level Business study the AS Level topics and the following topics:

1. Business and environment • Business structure • Size of business • External influences on business activity
2. People in organisations • Human resource management • Organisational structure • Business communication
3. Marketing • Marketing planning • Globalisation and international marketing
4. Operations and project management • Operations planning • Capacity utilisation • Lean production and quality management • Project management
5. Finance and accounting • Costs • Budgets • Contents of published accounts • Analysis of published accounts • Investment appraisal
6. Strategic management • What is strategic management? • Strategic analysis • Strategic choice • Strategic implementation

Assessment

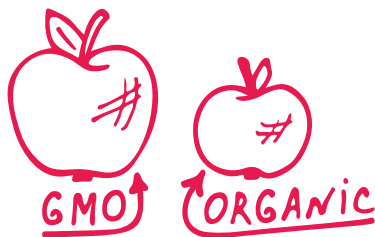
Year 12 (AS Level)

Paper 1: Short answer and essay – 1 hour 15 mins

Paper 2: Data response – 1 hour 30 mins

Year 13 (A Level only)

Paper 3: Case study – 3 hours



A Level Chemistry studies the material world and through it we can describe and explain our experiences. From baking a cake to recharging a mobile phone, Chemistry is involved in everything we do and every day life is influenced by many aspects of Chemistry. This subject will continue to be at the forefront of responding to the needs of society; with chemists central to making advances in designing new materials, efficient energy use, drug development and technology.

Cambridge International AS and A Level Chemistry builds on the skills acquired at Cambridge IGCSE (or equivalent) level. The syllabus includes the main theoretical concepts which are fundamental to the subject, some current applications of chemistry, and a strong emphasis on advanced practical skills. Practical skills are assessed in a timetabled practical examination.

The emphasis throughout is on the understanding of concepts and the application of chemistry ideas in novel contexts as well as on the acquisition of knowledge. The course encourages creative thinking and problem-solving skills which are transferable to any future career path.

Content

Candidates for Cambridge International AS Level Chemistry study the following topics:

Physical Chemistry

1. Atomic structure
2. Atoms, molecules and stoichiometry
3. Chemical bonding
4. States of matter
5. Chemical energetics
6. Electrochemistry
7. Equilibria
8. Reaction kinetics inorganic chemistry
9. The Periodic Table: chemical periodicity
10. Group 2 (The alkaline earth metals)
11. Group 17 (The halogens)
12. Nitrogen and sulfur

Organic Chemistry

13. An introduction to AS Level organic chemistry
14. Hydrocarbons
15. Halogen compounds
16. Hydroxy compounds
17. Carbonyl compounds
18. Carboxylic acids and derivatives
19. Nitrogen compounds
20. Polymerisation
21. Organic synthesis analysis
22. Analytical techniques

AS Level candidates also study practical skills.

Candidates for Cambridge International A Level Chemistry study the AS topics and the following topics:

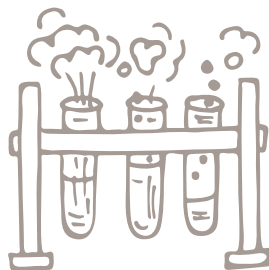
Physical Chemistry

- 23. Chemical energetics
- 24. Electrochemistry
- 25. Equilibria
- 26. Reaction kinetics Inorganic chemistry
- 27. Group 2 (The alkaline earth metals)
- 28. Chemistry of transition elements

Organic Chemistry

- 29. An introduction to A Level organic chemistry
- 30. Hydrocarbons
- 31. Halogen compounds
- 32. Hydroxy compounds
- 33. Carboxylic acids and derivatives
- 34. Nitrogen compounds
- 35. Polymerisation
- 36. Organic synthesis Analysis
- 37. Analytical techniques

A Level candidates also study practical skills.



Assessment

AS Level (end of Year 12)

Paper 1: 40 multiple choice questions
– 1 hour 15 mins

Paper 2: Structured questions
– 1 hour 15 mins

Paper 3: Advanced practical skills
(practical) – 2 hours

A Level (end of Year 13)

Paper 4: Structured questions - 2 hours

Paper 5: Planning, analysis and evaluation
– 1 hour 15 mins

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37 Rb RUBIDIUM 85.467	38 Sr STRONTIUM 87.62	39 Y YTTRIUM 88.9058	40 Zr ZIRCONIUM 91.224	41 Nb NIOBIUM 92.9063	42 Mo MOLYBDENUM 95.95	43 Tc TECHNETIUM (98)



The study of Cambridge International AS and A Level Economics allows learners to explore concepts and theories which can be applied to the way that modern economies work. Cambridge learners develop the ability to explain, evaluate and analyse economic issues and arguments. They gain lifelong skills and a solid foundation for further study. Learners study how to explain and analyse economic issues and arguments, evaluate economic information, and organise, present and communicate ideas and judgements clearly.

Cambridge International A Level Economics provides a suitable foundation for the study of Economics or related courses in higher education. Equally it is suitable as part of a course of general education. Students do not need to have studied Economics previously.

Content

Candidates for Cambridge International AS Level Economics study the following topics:

- 1.** Basic economic ideas and resource allocation • Scarcity, choice and opportunity cost • Positive and normative statements • Factors of production • Resource allocation in different economic systems and issues of transition • Production possibility curves • Money • Classification of goods and services
- 2.** The price system and the micro economy • Demand and supply curves • Price elasticity, income elasticity and cross-elasticities of demand • Price elasticity of supply • Interaction of demand and supply • Market equilibrium and disequilibrium • Consumer and producer surplus
- 3.** Government microeconomic intervention • Maximum and minimum prices • Taxes (direct and indirect) • Subsidies • Transfer payments • Direct provision of goods and services • Nationalisation and privatisation
- 4.** The macro economy • Aggregate Demand and Aggregate Supply analysis • Inflation • Balance of payments • Exchange rates • The terms of trade • Principles of absolute and comparative advantage • Protectionism
- 5.** Government macro intervention • Types of policy: fiscal, monetary and supply side policy • Policies to correct balance of payments disequilibrium • Policies to correct inflation and deflation

Candidates for Cambridge International A Level Economics study the AS Level topics and the following topics:

- 1.** Basic economic ideas and resource allocation • Efficient resource allocation • Externalities and market failure • Social costs and benefits; cost-benefit analysis
- 2.** The price system and the micro economy • Law of diminishing marginal utility • Indifference curves • Budget lines • Types of cost, revenue and profit, short-run and long-run production • Different market structures • Growth and survival of firms • Differing objectives of a firm
- 3.** Government microeconomic intervention • Policies to achieve efficient resource allocation and correct market failure • Equity and policies towards income and wealth redistribution • Labour market forces and government intervention: – Demand and supply of labour – Wage determination in perfect markets – Wage determination in imperfect markets • Government failure in microeconomic intervention
- 4.** The macro economy • Economic growth, economic development and sustainability • National Income statistics • Classification of countries • Employment/unemployment • The circular flow of income • Money supply (theory) • Keynesian and Monetarist schools • The demand for money and interest rate determination • Policies towards developing economies; policies of trade and aid
- 5.** Government macro intervention • Government macro policy aims • Inter-connectedness of problems • Effectiveness of policy options to meet all macroeconomic objectives

Assessment

Year 12 (AS Level)

Paper 1: Multiple choice – 1 hour

Paper 2: Data response and essay
– 1 hour 30 mins

Year 13 (A Level only)

Paper 3: Multiple choice – 1 hour 15 mins

Paper 4: Data response and essays
– 2 hours 15 mins



The English Language course combines linguistic analysis with original writing, requiring students to recognise how texts are crafted for different purposes and audiences, and to recreate this crafting in their own work.

Students develop both analytical and creative writing in a wide range of forms, including but not limited to travel writing, reviews, blogs, promotional texts, speeches, short stories, scripts and transcripts.

Content

Students in Year 12 deconstruct and recreate a range of genres which are either imaginative, narrative, descriptive, persuasive or argumentative in purpose. They are assessed by two examinations: one producing analytical commentaries on text, and one in which they produce original writing in response to a set writing brief.

Students in Year 13 continue to build on these skills of analysis and composition, together with studying language in real world contexts, analysing transcribed spoken language given in three contexts: language acquisition, social groups and global English. Students are assessed by two examinations: one which combines directed writing with analysis, and a second which requires students to analyse a commentary derived from one of the three language contexts they have studied.

Assessment

AS Level (end of Year 12)

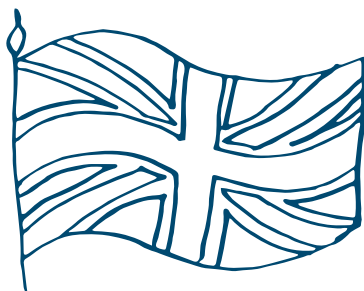
Paper 1: Reading – 2 hours 15 mins

Paper 2: Writing – 2 hours

A Level (end of Year 13)

Paper 3: Language analysis
– 2 hours 15 mins

Paper 4: Language topics
– 2 hours 15 mins



Successful English learners develop a lifelong understanding and enjoyment of literary tools, texts, and, importantly, gain a range of essential skills, including:

- the ability to write clearly and effectively
- skills in developing arguments
- skills in researching and managing information
- the ability to analyse complex texts in different forms and styles

Content

Students in Year 12 study the genres of poetry, prose and drama and are assessed by two closed text examinations.

Students in Year 13 study one Shakespearean play and one other pre 20th century text. These texts are assessed by a closed text examination. Students are required to produce a coursework portfolio of two essay responses on two different texts and literary forms.

This course is suited to students who have an interest in reading a wide variety of contemporary and traditional literature, and to those who are enthusiastic about expressing opinions and discussing their responses with others. Students will learn to recognise the relevance of literature to wider society and make links to the world that we live in.

Assessment

AS Level (end of Year 12)

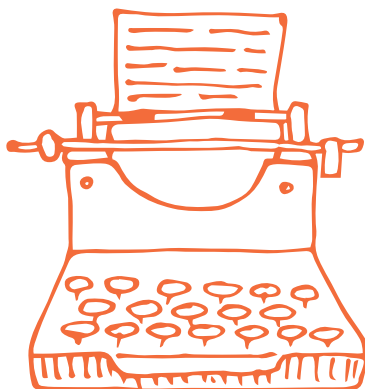
Paper 1: Drama and Poetry – 2 hours

Paper 2: Prose and unseen – 2 hours

A Level (end of Year 13)

Paper 3: Shakespeare and Drama – 2 hours

Paper 4: Pre and Post 1900 Poetry and Prose – 2 hours



Please note: Candidates wishing to take a Cambridge International A Level must take all components of the assessment in the same examination series. It is not possible for candidates to take AS level and then A Level (unlike other subjects).

French is a course where the language, culture and recent history of the Francophone countries are studied in depth. During the two years, students will be exploring music trends, watching films and reading French literature in a more in depth way than they did at IGCSE level.

Within the AS course, topics such as changing family structures, education and world of work, media, music and traditions will be studied. The students are expected to retain grammar, vocabulary and tense work from their IGCSE as they embark on their new adventure taking them from AS to A Level.

Content

All textual material used in the examinations will be drawn from the topic areas below, with reference to the country or countries where the language is spoken.

- Human relationships
- Family
- Generation gap
- Young people
- Patterns of daily life
- Urban and rural life
- The media
- Food and drink
- Law and order
- Philosophy and belief
- Health and fitness
- Work and leisure

- Equality of opportunity
- Employment and unemployment
- Sport
- Free time activities
- Travel and tourism
- Education
- Cultural life/heritage
- War and peace
- Social and economic development
- Scientific and medical advances
- Technological innovation
- Environment
- Conservation
- Pollution
- Contemporary aspects of the country or countries where the language is spoken

Assessment

AS Level (end of Year 12)

Component 1: Speaking test – 20 mins (29%)

Component 2: Reading and Writing – 1 hour 45 mins (50%)

Component 3 Essay – 1 hour 30 mins (21%)

A Level (end of Year 13 only)

Component 1: Speaking test – 20 mins (20%)

Component 2: Reading and Writing – 1 hour 45 mins (35%)

Component 3: Essay – 1 hour 30 mins (15%)

Component 4: Texts – 2 hours 30 mins (30%)

Geography is a flexible subject which complements both Sciences and Arts/ Humanities subjects. This means that you can keep your options open when looking at Higher Education and Careers. It is important that you should have a lively and enquiring mind, an interest in the environment and current affairs and a willingness to explore new ideas and communicate your ideas effectively.

The Geography syllabus builds upon skills gained at Cambridge IGCSE (or equivalent) level study. Learners widen their knowledge and understanding of the subject, while developing their investigative abilities and their evaluation and decision-making skills.

The syllabus is wide-ranging and comprises a variety of options. For example, learners can study topics such as hydrology and fluvial geomorphology, atmosphere and weather, rocks and weathering, population change and settlement dynamics. The syllabus considers a range of environments, from tropical to arid, and learners can also study subjects such as environmental management, global interdependence and economic transition.

Content

Candidates for Cambridge International AS Level Geography study the following topics:

- Core Physical Geography
- Hydrology and fluvial geomorphology
- Atmosphere and weather
- Rocks and weathering
- Core Human Geography
- Population
- Migration
- Settlement dynamics

Candidates for Cambridge International A Level Geography study the AS Level topics and two options from:

- Advanced Physical Geography Options
- Tropical environments
- Coastal environments
- Hazardous environments
- Hot arid and semi-arid environments

And two options from:

- Advanced Human Geography Options
- Production, location and change
- Environmental management
- Global interdependence
- Economic transition

Assessment

AS Level (end of Year 12)

Paper 1: Core Physical Geography
– 1 hour 30 mins

Paper 2: Core Human Geography
– 1 hour 30 mins

A Level (end of Year 13)

Paper 3: Advanced Physical Geography Options – 1 hour 30 mins

Paper 4: Advanced Human Geography Options – 1 hour 30 mins



Cambridge International A and AS Level in History (9489)

Cambridge International AS Level History makes up the first half of the Cambridge International A Level course in History and provides a foundation for the study of History at Cambridge International A Level. Depending on local university entrance requirements, students may be able to use it to progress directly to university courses in History or some other subjects. It is also suitable as part of a course of general education.

The key concepts for Cambridge International AS and A Level History are:

- Cause and consequence - The events, circumstances, actions and beliefs that have a direct causal connection to consequential events and developments, circumstances, actions or beliefs.
- Change and continuity - The patterns, processes and interplay of change and continuity within a given time frame.
- Similarity and difference - The patterns of similarity and difference that exist between people, lived experiences, events and situations in the past.
- Significance - The importance attached to an event, individual or entity in the past, whether at the time or subsequent to it.
- Interpretations - How the past has been subsequently reconstructed and presented by historians.

Content

Candidates for Cambridge International AS Level History study the following topics:

For **Papers 1 and 2** candidates study one of the following options:

European option:

Modern Europe, 1750–1921

- France, 1774–1814
- The Industrial Revolution in Britain, 1750–1850
- Liberalism and nationalism in Germany, 1815–71
- The Russian Revolution, 1894–1921
- American option: The history of the USA, 1820–1941
- The origins of the Civil War, 1820–61
- Civil War and Reconstruction, 1861–77
- The Gilded Age and Progressive Era, 1870s to 1920
- The Great Crash, The Great Depression and the New Deal policies, 1920–41

International option:

International history, 1870–1945

- Empire and the emergence of world powers, 1870–1919
- The League of Nations and international relations in the 1920s
- The League of Nations and international relations in the 1930s
- China and Japan, 1912–45

Note: AS Level topics rotate between papers 1 and 2 year-on-year. The prescribed topic for Paper 1 in any given year is not used for Paper 2.

Candidates for Cambridge International A Level History study the following plus the AS topics:

Paper 3

- **Topic 1:** The origins of the First World War
- **Topic 2:** The Holocaust
- **Topic 3:** The origins and development of the Cold War

Paper 4

European option, depth study 1:

European history in the interwar years, 1919–41

- Theme 1: Mussolini's Italy, 1919–41
- Theme 2: Stalin's Russia, 1924–41
- Theme 3: Hitler's Germany, 1929–41
- Theme 4: Britain, 1919–39

American option, depth study 2:

The USA, 1944–92

- Theme 1: The late 1940s and 1950s
- Theme 2: The 1960s and the 1970s
- Theme 3: The 1980s and early 1990s
- Theme 4: Foreign policy, 1944–92

International option, depth study 3:

International history, 1945–92

- Theme 1: US–Soviet relations during the Cold War, 1950–91
- Theme 2: The spread of communism in East and Southeast Asia, 1945–91
- Theme 3: Decolonisation, the Cold War and the UN in Sub-Saharan Africa, 1950–92
- Theme 4: Conflict in the Middle East, 1948–91

Assessment

AS Level (end of Year 12):

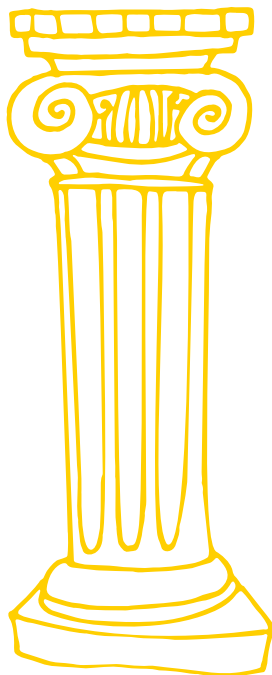
Paper 1: Document question
– 1 hour 15 mins

Paper 2: Outline study – 1 hour 45 mins

A level (end of year 13):

Paper 3: Interpretations question
– 1 hour 15 mins

Paper 4: Depth study – 1 hour 45 mins



Please note: Islamic studies will only be available at AS Level in Year 12. There will be no A Level Islamic Studies course. Students will also be able to opt to take a shorter course of only 2 hours a week which will not lead to an AS Level qualification.

The key concepts for Cambridge International AS and A Level Islamic Studies are:

The aims of this course are to enable students to:

- Develop knowledge and understanding appropriate to a specialist study of Islam
- Develop an understanding and appreciation of Islamic thought and practice and its contribution to individuals, communities and societies
- Develop an interest in a rigorous study of Islam and relate it to the wider world and their own experiences
- Reflect on and develop their own values, opinions and attitudes in the light of their study of Islam
- Engage with scholarly debate about Islam and develop an ability to express and justify their own opinions
- Adopt an enquiring and reflective approach to the study of Islamic religion which will form a solid foundation for further study

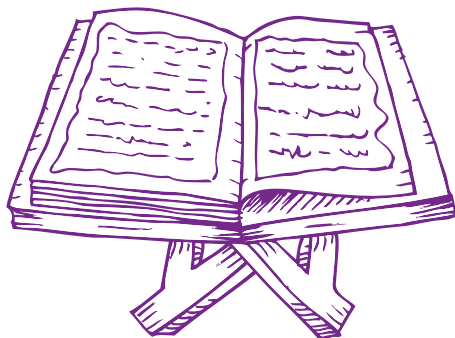
Assessment

Paper 1: 1 hour 30 minutes – 50%

- Islamic beliefs and practices
- Structured questions
- Candidates answer one compulsory question based on the prescribed Qur'anic and Hadith texts and one additional question from a choice of two

Paper 2: 1 hour 30 minutes – 50%

- Islamic law (shariah) and its application
- **Section A:** Structured questions. Candidates answer one question from a choice of two.
- **Section B:** Structured questions. Candidates answer one question from a choice of two





Cambridge International AS & A Level Mathematics is accepted by universities and employers as proof of mathematical knowledge and understanding. Successful candidates gain lifelong skills, including:

- A deeper understanding of mathematical principles
- The further development of mathematical skills including the use of applications of mathematics in the context of everyday situations and in other subjects that they may be studying
- The ability to analyse problems logically, recognising when and how a situation may be represented mathematically
- The use of mathematics as a means of communication
- A solid foundation for further study

Content

1. Pure Mathematics 1 (Paper 1)

- 1.1.** Quadratics
- 1.2.** Functions
- 1.3.** Coordinate geometry
- 1.4.** Circular measure
- 1.5.** Trigonometry
- 1.6.** Series
- 1.7.** Differentiation
- 1.8.** Integration

2. Pure Mathematics 2 (Paper 2)

- 2.1.** Algebra
- 2.2.** Logarithmic and exponential functions
- 2.3.** Trigonometry
- 2.4.** Differentiation
- 2.5.** Integration
- 2.6.** Numerical solution of equations

3. Pure Mathematics 3 (Paper 3)

- 3.1.** Algebra
- 3.2.** Logarithmic and exponential functions
- 3.3.** Trigonometry
- 3.4.** Differentiation
- 3.5.** Integration
- 3.6.** Numerical solution of equations
- 3.7.** Vectors
- 3.8.** Differential equations
- 3.9.** Complex numbers

4. Mechanics (Paper 4)

- 4.1.** Forces and equilibrium
- 4.2.** Kinematics of motion in a straight line
- 4.3.** Momentum
- 4.4.** Newton's laws of motion
- 4.5.** Energy, work and power

5. Probability and Statistics 1 (Paper 5)

- 5.1.** Representation of data
- 5.2.** Permutations and combinations
- 5.3.** Probability
- 5.4.** Discrete random variables
- 5.5.** The normal distribution

6. Probability and Statistics 2 (Paper 6)

- 6.1.** The Poisson distribution
- 6.2.** Linear combinations of random variables
- 6.3.** Continuous random variables
- 6.4.** Sampling and estimation
- 6.5.** Hypothesis tests

Assessment

The Cambridge International AS Level Mathematics qualification offers three different options:

- Pure Mathematics only (**Paper 1 and Paper 2**) *or*
- Pure Mathematics and Mechanics (**Paper 1 and Paper 4**) *or*
- Pure Mathematics and Probability and Statistics (**Paper 1 and Paper 5**)

The Cambridge International A Level Mathematics qualification offers two different options:

- Pure Mathematics, Mechanics and Probability and Statistics (**Papers 1, 3, 4 and 5**) *or*
- Pure Mathematics and Probability and Statistics (**Papers 1, 3, 5 and 6**)

Paper 1: Pure Mathematics 1
– 1 hour 50 mins

Paper 2: Pure Mathematics 2
– 1 hour 15 mins

Paper 3: Pure Mathematics 3
– 1 hour 50 mins

Paper 4: Mechanics – 1 hour 15 mins

Paper 5: Probability and Statistics 1
– 1 hour 15 mins

Paper 6: Probability and Statistics 2
– 1 hour 15 mins

It is likely that the school will be offering A Level Pure Mathematics, Mechanics and Probability and Statistics (Papers 1, 3, 4 and 5) which is most useful for those considering a career in engineering.





Cambridge International AS and A Level Music provides opportunities for learners to develop and improve their musical skills in a wide range of music styles and traditions. It allows learners to explore and build on their interests. The syllabus encourages independent expression and the development of a critical, reflective practice. It is designed to accommodate a range of music and resources, and the different skills and interests of teachers. Cambridge International A Level Music provides a foundation for the study of music or related courses in higher education. Equally it is suitable as part of a course of general education.

Content

Cambridge International AS and A Level Music encourages learners to study a variety of music and build on their individual interests. Learners develop the ability to make connections between the musical activities of listening, composing and performing and the variety of music around the world. Teachers have the flexibility to structure the Cambridge AS and A Level Music syllabus so that the course supports and develops learners' musical experience, interests and abilities.

At AS Level, learners focus on listening, composing and performing. For listening, they study set works. These are chosen to support learners in developing their listening skills and understanding of music, including compositional techniques and performance practice. They learn to work with Western notation. Learners also listen to and explore other music of their choice and identify and learn to communicate connections across a wide variety of music.

Learners are also encouraged to build on their own personal musical interests as they study composing and performing. Through this, they learn to develop their own range of compositions and performance programme.

At A Level, learners have the opportunity to build on their AS Level studies. They choose two areas of interest from composing, performing and investigating music. Learners have the opportunity to develop their musical knowledge, skills and understanding and to communicate these through music and academic writing of more depth. Throughout the course, learners are encouraged to analyse and evaluate and to present work which is underpinned by practical and theoretical understanding. By learning to listen attentively and with purpose, to create and perform, and present understanding of music through academic writing, learners are developing transferable skills. These will help equip them for higher education or employment.

Assessment

Year 12 (AS Level)

Component 1: Listening – 2 hours

Component 2: Practical Music
(Coursework)

Year 13 (A Level)

A choice of two of the three following components:

Component 3: Extended performance
(Coursework)

Component 4: Extended composition
(Coursework)

Component 5: Investigating Music
(Coursework)

Physics is widely recognised by universities as a valuable and academically demanding A Level. Its content is of direct relevance to a number of career paths such as all branches of Engineering and Medicine. As well as studying Physics you will also be developing many skills invaluable to your future career and life:

- A logical and numerate mind
- The ability to solve problems
- Communication skills, developed through report writing and presentations
- Computing and practical skills
- Teamwork and flexibility (essential for lab work and projects)

Cambridge International AS and A Level Physics builds on the skills acquired at Cambridge IGCSE (or equivalent) level. The syllabus includes the main theoretical concepts which are fundamental to the subject, some current applications of physics, and a strong emphasis on advanced practical skills. Practical skills are assessed in a timetabled practical examination.

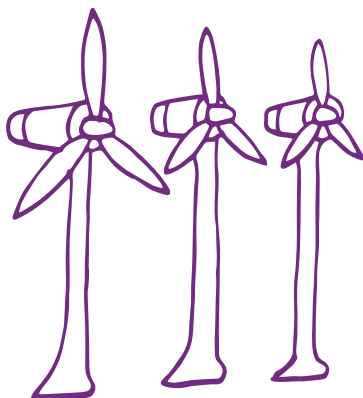
The emphasis throughout is on the understanding of concepts and the application of physics ideas in novel contexts as well as on the acquisition of knowledge. The course encourages creative thinking and problem-solving skills which are transferable to any future career path.

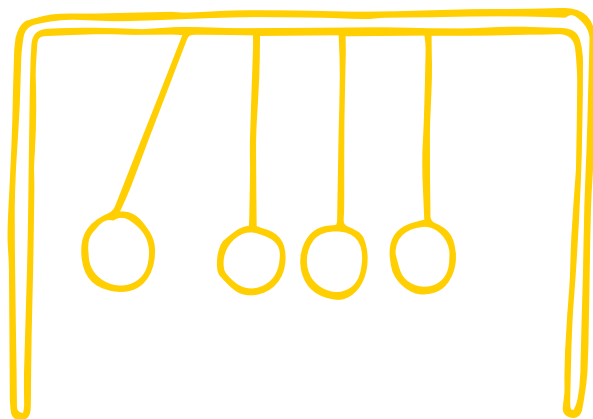
Content

Candidates for Cambridge International AS Level Physics study the following topics:

- 1.** Physical quantities and units
- 2.** Kinematics
- 3.** Dynamics
- 4.** Forces, density and pressure
- 5.** Work, energy and power
- 6.** Deformation of solids
- 7.** Waves
- 8.** Superposition
- 9.** Electricity
- 10.** D.C. circuits
- 11.** Particle physics

AS Level candidates also study practical skills.





Candidates for Cambridge International A Level Physics study the AS Level topics and the following topics:

- 12.** Motion in a circle
- 13.** Gravitational fields
- 14.** Temperature
- 15.** Ideal gases
- 16.** Thermodynamics
- 17.** Oscillations
- 18.** Electric fields
- 19.** Capacitance
- 20.** Magnetic fields
- 21.** Alternating currents
- 22.** Quantum physics
- 23.** Nuclear physics
- 24.** Medical physics
- 25.** Astronomy and cosmology

A Level candidates also study practical skills.

Assessment

AS level (end of Year 12)

Paper 1: 40 multiple choice questions

– 1 hour 15 mins

Paper 2: Structured questions

– 1 hour 15 mins

Paper 3: Advanced practical skills (practical) – 2 hours

A level (end of Year 13)

Paper 4: Structured questions – 2 hours

Paper 5: Planning, analysis and evaluation – 1 hour 15 mins

YOU



can do great things



Please note: Candidates wishing to take a Cambridge International A Level must take all components of the assessment in the same examination series. It is not possible for candidates to take AS level and then A Level (unlike other subjects).

The higher level course in Spanish entails the students gain an understanding of Hispanic culture and the recent history of Spanish speaking countries will be studied in depth. During the two years, students explore music trends, watching films and reading Hispanic literature which gives them an insight into Spanish culture and literacy.

The AS Level course covers topics such as the impact of tourism in Spain, changing family structures and the world of work as well as enhancing their knowledge of grammar, vocabulary and tense work which the students should retain from the IGCSE course.

Content

All textual material used in the examinations will be drawn from the topic areas below, with reference to the country or countries where the language is spoken.

- Human relationships
- Family
- Generation gap
- Young people
- Patterns of daily life
- Urban and rural life
- The media
- Food and drink
- Law and order
- Philosophy and belief
- Health and fitness

- Work and leisure
- Equality of opportunity
- Employment and unemployment
- Sport
- Free time activities
- Travel and tourism
- Education
- Cultural life/heritage
- War and peace
- Social and economic development
- Scientific and medical advances
- Technological innovation
- Environment
- Conservation
- Pollution
- Contemporary aspects of the country or countries where the language is spoken

Assessment

AS Level (end of Year 12)

Component 1: Speaking test – 20 mins (29%)

Component 2: Reading and Writing – 1 hour 45 mins (50%)

Component 3: Essay – 1 hour 30 mins (21%)

A Level (end of Year 13 only)

Component 1: Speaking test – 20 mins (20%)

Component 2: Reading and Writing – 1 hour 45 mins (35%)

Component 3: Essay – 1 hour 30 mins (15%)

Component 4: Texts – 2 hours 30 mins (30%)

Be Ambitious



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