



IGCSE COURSES

2015 - 2017

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INTRODUCTION

Building upon the educational foundations established in previous key stages, the IGCSE curriculum of Year 10 and 11 seeks to create an academically challenging, relevant and varied course of study that acts as a springboard for further education.

All pupils must work exceptionally hard to meet the rigours of this challenging programme. They must demonstrate a committed attitude, diligent work ethic and a highly honed set of organisational skills. They should also be willing to become independent learners determined to succeed and fulfil their potential, ready to question critically, go that extra mile and be proud members of the Straits community.

This booklet is designed to aid you in your choice of IGCSE subjects and inform you of what you can expect in the time to come, so please study it carefully. By understanding the nature of what you are learning, you can take the first steps to success. Please also remember that the staff at Straits International School are always willing to help you in these decisions, so please do not hesitate to approach them if needed.

Mr. Charles Grayhurst
Principal

THE IGCSE CURRICULUM

The General Certificate of Secondary Education (GCSE) is an examination which is taken at the end of Key Stage 4 by pupils in England and Wales. It is the standard qualification for pupils aged 14 to 16 years old. The equivalent examination taken by pupils in an international context is the International General Certificate of Secondary Education (IGCSE) because it allows pupils in countries throughout the world to gain a British qualification that is highly respected.

Pupils at SIS will sit IGCSE examinations authorised and prepared by Cambridge International Examinations (www.cie.org.uk). The Cambridge IGCSE encourages learner-centred and enquiry-based approaches to learning; develops learners' skills in creative thinking, encouraging enquiry and problem-solving, and gives pupils excellent preparation for the next stage of their education.

With its clearly defined content and learning outcomes, the Cambridge IGCSE is compatible with other curricula and is internationally relevant and sensitive to different needs and cultures.

The Cambridge IGCSE develops pupils' knowledge, understanding and skills in the following ways:

- subject content
- applying knowledge and understanding to familiar and new situations
- intellectual enquiry
- flexibility and responsiveness to change
- working and communicating in English
- influencing outcomes
- cultural awareness

Assessment for the Cambridge IGCSE includes written and spoken tests, coursework and practical tasks. Coursework is set and marked by the pupils' teachers and is then externally moderated by Cambridge IGCSE examiners.

In many subjects, there is a choice between a core and an extended curriculum, which makes the Cambridge IGCSE suitable for pupils of varying abilities. There are eight internationally recognised grades (A* – G) against which the pupils' performances are judged. There are specific guidelines which explain the standard of achievement required for the different grades.

Pupils who begin their IGCSE courses in the academic year 2015 – 2016 will sit their IGCSE examination in May and June 2017.

IGCSE AT STRAITS INTERNATIONAL SCHOOL

Assessment

Pupils will typically study eight to ten courses, with the aim of sitting examinations in each subject area. Each subject area may have a number of separate examination papers, resulting in a strenuous examination programme in May and June 2017. Some subject areas have coursework as part of the course, which means that various assignments are submitted at stages throughout the course. For those students who will struggle to complete this number of IGCSEs, they may have their programme altered to suit their needs.

Our courses will include continuous assessment, providing formative feedback for both pupils and teachers. Such assessment may include, but not be exclusive to:

- classwork
- homework
- testing at the end of a topic or unit
- essays and projects
- practical work

Assessment in its many forms is an integral part of the curriculum. The main purposes of assessment are:

- to discover what pupils have achieved in terms of knowledge, skills and understanding
- to encourage and to praise
- to set targets
- to inform planning and teaching
- to inform reporting

At the end of Year 10, all pupils will sit examinations in the subjects they have been studying. These will be conducted in a formal setting, replicating how IGCSE examinations will be conducted. These end-of-year examinations will assess what pupils have studied throughout the year, and so it will be important for pupils to learn how to revise too.

In January 2017, all Year 11 pupils will sit mock IGCSE examinations which will cover as much of the syllabus as possible at that stage. These examinations will be summative in their nature, in order to give pupils, teachers

and parents a clear picture of where pupils' attainment lies at that time. Additionally, and perhaps more importantly, these examinations also have a formative element, because they will give pupils and teachers guidance on where strengths and weaknesses lie, so that further improvement and progress can be made.

After the mock examinations have been taken and the results published, discussions will take place about the advisability of pupils taking the final examination in subjects in which they are struggling to make the necessary headway.

Reporting

The reporting cycle for the IGCSE courses is:

October, Year 10	interim progress report
December, Year 10	end-of-term report and parent/teacher meeting
March, Year 10	interim progress report and parent/teacher meeting
June, Year 10	end-of-year report and parent/teacher meeting
October, Year 11	interim progress report
December, Year 11	end-of-term report
January, Year 11	mock examination results published and parent/teacher meeting
March/April Year 11	progress report and final meeting

Homework

Homework is a vital aspect of the curriculum and pupils are expected to complete their tasks by the specified deadline and to the best of their ability. It is expected that pupils will usually spend between two and three hours per night on their homework, but this is only a general guideline because a number of assignments given during the IGCSE courses will be long-term essays or projects and will require good time management. Pupils need to be prepared to work hard and be diligent in their studies. Independent learning, organisational ability, good study habits and dedication are all important attributes in a successful IGCSE candidate.

Tutor Groups

All pupils are part of a tutor group which is overseen by the form tutor. Pupils meet their tutors every day for registration; and they also have their PSHE sessions in the tutor group with the tutor.

Form tutors are the first point of contact for pupils; they monitor Pupil Planners; and they play a key role in setting and monitor individual targets. Parents are encouraged to develop good working relationships with their son's or daughter's Form Tutor, in order to create an environment in which everybody can work together to the benefit of the pupil and his or her achievement.

Pupil development

Throughout Years 10 and 11, the School will continue to seek opportunities to develop the community ethos we stand for, so that they can exemplify the spirit of SIS, demonstrating:

- independence and self-discipline

- hard work
- commitment to the wider life of the school
- caring for others and compassion
- service mindedness
- confidence and creativity
- communication skills
- initiative and pro activeness
- leadership
- ability to work with others

CHOOSING SUBJECTS

The IGCSE curriculum combines a core of compulsory subjects and a range of optional subjects selected from a range of groups. Pupils will study nine to ten subjects and it is important to recognise the need for a sensible workload, one that is appropriate to the pupil's abilities.

Pupils might have difficulty deciding which subjects to choose and might be reluctant to opt for one course at the expense of another. Therefore, they should consider a number of factors:

- **content** – a summary of each course can be found later in this booklet. It is important to match pupils' interests and abilities, checking the workload so that pupils are not overloaded. Discussion with teachers is recommended if there is doubt.
- **balance and breadth** – it is important to keep options for the future as open as possible at this stage. Whilst a particular career might be uppermost in a pupil's mind now, a lot can change over the coming years.
- **interest** – this must be in the subject and should not be determined by the likeability factor of a particular teacher. Whilst it is hoped that the teaching staff will remain unchanged over the course of the two years, it is not possible to guarantee that a particular teacher will be responsible for a particular subject or group. Successful grades, coping with current demands and enjoying content are all positive indicators for choice of a particular subject.
- **strengths or talents** – where pupils have particular ones – be they practical, numerical, creative, or expressed orally in writing – they are likely to have a greater confidence in their ability to succeed and those subjects might lead to a continuing interest at a higher level.

Pupils should make their choices based on a combination of these factors, but choose ultimately what gives them the greatest chance of success. **Most importantly – do not choose based upon the teacher, as these may change. Choose based solely on the above.**

Options structure

Core subjects – all pupils must study English as either a first or second language. Those who study English as a first language will also study English Literature. All pupils must also study a Mathematics subject and a Science subject.

Malaysian pupils are required to study Bahasa Malaysia. Pupils of a Mandarin heritage shall be expected to study Chinese 1st Language. On occasion, however, it may be recommended that they study Mandarin as a Foreign Language instead.

Optional subjects – all pupils must choose one subject from each of the remaining groups, following a breadth of study recommended by Cambridge International Examinations.

Some frequently asked questions

How many IGCSEs can my child study?

Please select one subject from each column. Where there are several subjects in the same column, please indicate a first and second choice. The maximum number of subjects that a pupil can study is nine/ten. However, we advise caution here, because to study this many subjects represents a very large workload and commitment. We would wish to discuss any such decision and to review progress if we felt that a pupil was not able to make sufficient progress.

What is the difference between English 1st language and English 2nd language?

English 1st language is suitable for native speakers or those with extremely good second language ability. English 2nd language is accepted by Higher Education institutions in the UK and elsewhere as an indication of proficiency in English, and a grade 'A' in English 2nd language is equivalent to a grade 'C' in English 1st language.

Can my child study all three sciences?

Yes. However, this choice should be made in conjunction with the teachers as it is academically challenging and rather restrictive when choosing future A Levels and University courses.

What happens if not enough pupils choose a particular subject?

We reserve the right to close an option if too few pupils have chosen it. However, this step will only be taken in extreme circumstances. If this is necessary, we will inform those parents whose children are affected. Pupils will be allocated to their second choice subject if the first is not available.

What happens if my child changes his or her mind in the coming weeks?

We will do all that we can to accommodate any changes of mind, but if a particular class is already full then the change will not be possible.

Name of Student:

The following subjects adhere to the format of the **International Certificate of Education (ICE)**. Cambridge ICE is the group award of the International General Certificate of Secondary Education (IGCSE) and requires the study of subjects drawn from five different IGCSE subject groups. The option bands are therefore as follows. Please indicate your **1st** and **2nd** choices in the boxes where appropriate.

English -4 hours		Language One - 3 hours		The Humanities - 3 hours		The Sciences - 3 hours		Compulsory Maths - 3 hours		Option A - 3 hours		Option B - 3 hours		Language Two - 3 hours		
English 1 st Lang. & Literature		Chinese 1 st Lang.		Global Perspectives		Combined Science		Maths		Business Studies		Art		French		
English 2 nd Lang.		Mandarin Foreign Lang.		History		Chemistry		[Redacted]		ICT		ICT (Cannot be studied twice)		Bahasa Malaysia (Where Compulsory)		
[Redacted]		1 st Lang. Self-Study		Economics		AS General Studies (Staffing and numbers)					Music		Additional Maths		[Redacted]	
		EAL		Geography		[Redacted]					Physics		Biology			

PE, Form Time and Personal, Social, Health Education (PSHE) are non-examination subjects that shall also be part of the curriculum.

Islamic Studies to be within Co-curricular sessions

AS General Studies as an extra in Year 11 if appropriate to extend the able.

ENGLISH

ENGLISH 1ST LANGUAGE (0500)

The aims are to:

- enable pupils to communicate accurately, appropriately and effectively in speech and writing
- enable pupils to understand and respond appropriately to what they hear, read and experience
- encourage pupils to enjoy and appreciate a variety of language types and registers
- complement pupils' other areas of study by developing skills of a more general application (e.g. analysis, synthesis, drawing of inferences)
- promote pupils' personal development and an understanding of themselves and others.

Assessment

Paper One (Core)	<i>or</i>	Paper Two (Extended)
<ul style="list-style-type: none"> • 1 hour 45 minutes • Two questions • Eligible for grades C-G • 50% of marks 		<ul style="list-style-type: none"> • 2 hours • Three questions • Eligible for grades A*-E • 50% of marks
In addition to		
Paper Three (Directed Writing)	<i>or</i>	Paper Four (Coursework)
<ul style="list-style-type: none"> • 2 hours • 50% of marks 		<ul style="list-style-type: none"> • Three assignments of 500-800 words • 50% of marks

Content

Pupils must demonstrate skills in reading, writing, speaking and listening using a variety of techniques and texts studied throughout the course.

ENGLISH LITERATURE (0486) – FOR THOSE STUDYING ENGLISH 1ST LANGUAGE

The aims are to encourage pupils' to:

- enjoy the experience of reading
- understand and respond to literary texts in different forms and from different periods and cultures;
- communicate an informed personal response appropriately and effectively
- appreciate different ways in which writers achieve their effects
- experience literature's contribution to aesthetic, imaginative and intellectual growth
- explore how literature allows us to better understand the human condition.

Assessment

Paper One	<i>and either</i>	Paper Two	<i>or</i>
<ul style="list-style-type: none"> • 1 hour 30 minutes • Prose and poetry • Two questions • 50% of marks 		<ul style="list-style-type: none"> • 1 hour 30 minutes • Drama • Two questions • 50% of marks 	
Components 3 and 4	<i>or</i>	Components 3 and 5	
<ul style="list-style-type: none"> • 45 minutes and 1 hour 15 minutes • Drama/Unseen • One question each paper • 25%/25% of marks 		<ul style="list-style-type: none"> • 45 minutes • Drama/Portfolio • One question/Two assignments • 25%/25% of marks 	

Content

Set texts are published on the syllabus contained on the website. The English department shall choose texts for the students later this year.

ENGLISH 2ND LANGUAGE (0511)

The aims are to:

- develop the ability to use English effectively for the purpose of practical communication;
- form a sound base for the skills required for further study or employment using English as the medium;
- develop an awareness of the nature of language and language-learning skills, along with skills of a more general application;
- promote students' personal development.

Assessment

Paper One (Core)	<i>or</i>	Paper Two (Extended)
<ul style="list-style-type: none"> • 1 hour 30 minutes • Reading and writing • Eligible for grades C-G • 70% of marks 		<ul style="list-style-type: none"> • 2 hours • Reading and writing • Eligible for grades A*-E • 70% of marks
In addition to		
Paper Three (Core)	<i>or</i>	Paper Four (Coursework)
<ul style="list-style-type: none"> • 30-40 minutes • Listening • Eligible for grades C-G • 15% of marks 		<ul style="list-style-type: none"> • 45 minutes • Listening • Eligible for grades A*-E • 15% of marks
In addition to		
Component Five	<i>or</i>	Component Six
<ul style="list-style-type: none"> • 10-15 minutes • Oral • Endorsed by the school • 15% of marks 		<ul style="list-style-type: none"> • Oral coursework • Endorsed by the school • 15% of marks

Content

Pupils must demonstrate skills in reading, writing, speaking and listening using a variety of techniques and texts studied throughout the course.

CONTINUE OVERLEAF

LANGUAGE TWO

CHINESE 1ST LANGUAGE (0509)

The aims are to:

- enable students to communicate accurately, appropriately and effectively in writing;
- enable students to understand and respond appropriately to what they read;
- encourage students to enjoy and appreciate the variety of language;
- complement the students' other areas of study by developing skills of a more general application (e.g. analysis, synthesis, drawing of inferences);

Assessment

Paper One (Reading)	<i>and</i>	Paper Two (Writing)
<ul style="list-style-type: none">• 2 hours• Comprehension section• Summary section• 60% of marks		<ul style="list-style-type: none">• 1 hour 15 minutes• One composition of 400-600 characters• 40% of marks

Content

Pupils must demonstrate skills in reading and writing using a variety of techniques learnt by studying a variety of extended texts examined throughout the course.

CHINESE MANDARIN (FOREIGN LANGUAGE) (0547)

The aims are to:

- develop the ability to use the language effectively for purposes of practical communication
- form a sound base of the skills, language and attitudes required for further study, work and leisure
- offer insights into the culture and civilisation of countries where the language is spoken
- develop a fuller awareness of the nature of language and language learning
- encourage positive attitudes toward language learning and towards speakers of other languages and a sympathetic approach to other cultures and civilisations
- provide enjoyment and intellectual stimulation

Assessment

Paper One (Listening)	<i>and</i>	Paper Two (Reading)
<ul style="list-style-type: none">• 35 minutes• 25% of marks		<ul style="list-style-type: none">• 1 hour 15 minutes• 25% of marks
In addition to		
Paper Three (Speaking)	<i>and</i>	Paper Four (Writing)
<ul style="list-style-type: none">• Approximately 15 minutes• 25% of marks		<ul style="list-style-type: none">• 1 hour 15 minutes• 25% of marks

Content

Pupils must demonstrate skills in reading, writing, speaking and listening using a variety of techniques and texts studied throughout the course.

HUMANITIES

ISLAMİYAT (0493)

TAUGHT WITHIN CO-CURRICULAR

The aims are to develop:

- an understanding of the importance of the major beliefs of Islam and of the early history of the Islamic community
- evaluation skills to understand how these beliefs impact on the daily lives and thoughts of Muslims around the world
- familiarity with the Qur'an and Hadith in Arabic.

Assessment

Paper One	<i>and</i>	Paper Two
<ul style="list-style-type: none">• 1 hour 30 minutes• Four questions• 50% of marks		<ul style="list-style-type: none">• 1 hour 30 minutes• Four questions• 50% of marks

Content

Paper One – Major themes of the Qur'an, the history and importance of the Qur'an, the life and importance of the Prophet Muhammad, the first Islamic community.

Paper Two – Major teachings of the Hadiths of the Prophets, the history and importance of the Hadiths, the period of the rule of the Rightly Guided Caliphs and their importance as leaders. The Articles of Faith and the Pillars of Islam.

These papers shall be supplemented with the guidance of the Malaysian MOE.

GLOBAL PERSPECTIVES (0457)

The aims are to encourage pupils who are;

- are independent and empowered to take their place in an ever-changing, information-heavy, interconnected world
- have an analytical, evaluative grasp of global issues and their causes, effects and possible solutions
- enquire into and reflect on issues independently and in collaboration with others from a variety of different cultures, communities and countries
- can communicate sensitively with people from a variety of backgrounds
- work independently as well as part of a team, directing much of their own learning with the teacher as facilitator
- consider important issues from personal, local/national and global perspectives and who understand the links between them
- critically assess the information available to them and make judgements
- can support judgements with lines of reasoning
- have a sense of their own, active place in the world
- can empathise with the needs and rights of others

Assessment

Individual research	<i>and</i>	Group Project	<i>and</i>	Written paper
<ul style="list-style-type: none"> • Two projects • 40% of marks 		<ul style="list-style-type: none"> • One project • Including reflection • 30% of marks 		<ul style="list-style-type: none"> • 1 hour 15 minutes • Global Issues • 30% of marks

Content

Skills of planning, analysis, synthesis, collaboration, evaluation and communication. Topics are chosen from a range of global issues which are available upon the syllabus on the website. They include environment, education, conflict, family, law, poverty, sport, trade, education.

HISTORY (0470)

The aims are to encourage pupils to develop:

- stimulate interest in and enthusiasm about the past
- promote the acquisition of knowledge and understanding of human activity in the past
- ensure that the candidates' 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.

Assessment

Paper One	<i>and</i>	Paper Two
<ul style="list-style-type: none"> • Essay based on core content and depth study • 2 hours • 40% of marks 		<ul style="list-style-type: none"> • Source based questions on prescribed subject • 2 hours • 33% of marks
In addition to		
Paper Three		
<ul style="list-style-type: none"> • Paper based alternative to coursework • 1 hour • 27% of marks 		

Content

20th Century History – Peace treaties 1919-23, League of Nations, descent into war, the Cold War, the Gulf States, and a depth study chosen from either Russia, China, USA or Germany.

ECONOMICS (0455)

The aims are to teach

- an understanding of economic theory, terminology and principles
- the ability to apply the tools of economic analysis
- the ability to distinguish between facts and value judgements in economic issues
- an understanding of, and an ability to use, basic economic numeracy and literacy
- the ability to take a greater part in decision-making processes in everyday life
- an understanding of the economies of developed and developing nations
- an excellent foundation for advanced study in economics.

Assessment

Paper One (Multiple choice)
<ul style="list-style-type: none">• 45 minutes• 30% of marks
In addition to
Paper Two (Structured Questions) <ul style="list-style-type: none">• One compulsory question and three optional from six• 2 hours 15 minutes• 70% of marks

Content

Basic economic problem: choice and the allocation of resources. The allocation of resources. The individual as producer, borrower, consumer. The private firm as producer and employer. Role of government. Economic indicators. Developed and developing economies. International aspects.

CONTINUE OVERLEAF

SCIENCES

COMBINED SCIENCE (0653). THIS IS A SINGLE AWARD.

The aims are to:

Cambridge IGCSE Combined Sciences gives students the opportunity to study biology, chemistry and physics, each covered in separate syllabus sections. Students learn about 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.

Candidates learn how science is studied and practised, and become aware that the results of scientific research can have both good and bad effects on individuals, communities and the environment. As well as focusing on the individual sciences, the syllabus enables candidates to better understand the technological world they live in, and take an informed interest in science and scientific developments.

Assessment

Paper One (Multiple choice)					
<ul style="list-style-type: none">• 45 minutes• 30% of marks					
In addition to					
Paper Two (Core)		<i>or</i>	Paper Three (Extended)		
<ul style="list-style-type: none">• Grades C-G• 1 hour 15 minutes• 50% of marks			<ul style="list-style-type: none">• Grades A*-G• 1 hour 15 minutes• 50% of marks		
In addition to					
Paper Four	<i>or</i>	Paper Five	<i>or</i>	Paper Six	<i>or</i>
<ul style="list-style-type: none">• Practical coursework• 20% of marks		<ul style="list-style-type: none">• Practical test• 20% of marks		<ul style="list-style-type: none">• Alternative to practical• 20% of marks	

Biology – living organisms, cell structure, movement in and out of cells, enzymes, nutrients, plant nutrition, animal nutrition, transport in plants, transport in humans, respiration, coordination and response, reproduction, chromosomes and genes, ecosystems.

Chemistry – matter, experimental techniques, atoms, stoichiometry, electricity, energy, chemical reactions, acids, bases and salts, the periodic table, metals, air and water, sulfur, carbonates, organic chemistry.

Physics – motion, matter and forces, water, work and power, simple kinetic model of matter, matter and thermal properties, waves, light, electromagnetic spectrum, sound, magnetism, electricity radioactivity.

CHEMISTRY (0620)

The chemistry syllabus enables learners to:

- better understand the technological world, with an informed interest in scientific matters
- recognise the usefulness (and limitations) of scientific method, and how to apply this to other disciplines and in everyday life
- develop relevant attitudes, such as a concern for accuracy and precision, objectivity, integrity, enquiry, initiative and inventiveness
- develop an interest in, and care for, the environment
- better understand the influence and limitations placed on scientific study by society, economy, technology, ethics, the community and the environment

- develop an understanding of the scientific skills essential for both further study and everyday life.

Assessment

Paper One (Core)	<i>or</i>	Paper Two (Extended)
<ul style="list-style-type: none"> • 45 minutes • Multiple Choice • Grades C-G • 30% of marks 		<ul style="list-style-type: none"> • 45 mins • Multiple Choice • Grades A*-E • 30% of marks
In addition to		
Paper Three (Core)	<i>or</i>	Paper Four (Extended)
<ul style="list-style-type: none"> • 1 hour 15 mins • Short answer and structured questions • 50% of marks 		<ul style="list-style-type: none"> • 1 hour 15 mins • Short answer and structured questions • 50% of marks
In addition to		
Paper Five	<i>or</i>	Paper Six
<ul style="list-style-type: none"> • 1 hour 15 mins • Practical • 20% of marks 		<ul style="list-style-type: none"> • 1 hour • Experimental Skills paper • 20% of marks

Content

The nature of matter. Experimental techniques. Atoms, elements and compounds. Stoichiometry. Electricity. Chemical energetics. Acids, bases and salts. The periodic table. Metals. Air and Water. Sulfur. Carbonates. Organic chemistry.

AS GENERAL STUDIES (8001)

DEPENDENT UPON NUMBERS AND STAFFING. SHALL ALSO BE AVAILABLE THROUGH CO-CURRICULAR IN YEAR 11.

The syllabus enables learners to:

- be more aware of the breadth and complexity of the contemporary world
- develop thinking and reasoning skills, and maturity of thought
- achieve an understanding of (and ability in) the English language which enables them to express arguments, ideas and opinions in a reflective and academic manner.

Assessment

Paper One	<i>and</i>	Paper Two
<ul style="list-style-type: none"> • 1 hour 15 minutes • One essay of 5-800 words • 50% of marks 		<ul style="list-style-type: none"> • 1 hour 30 minutes • Unseen material question • 50% of marks

Questions are general in nature, demanding discussion and evaluation, and will not necessarily be set on every topic in any single examination. Possible areas for consideration might include:

The role of history and war; terrorism. The role of the individual in society – the family, marriage, peer pressure, class. Cultural changes – youth and drug culture. Education and welfare. Sport, leisure, international competition. (As well as many others).

MATHEMATICS

MATHEMATICS (0580)

The aims are to develop:

- develop their mathematical knowledge and oral, written and practical skills in a way which encourages confidence and provides satisfaction and enjoyment;
- read mathematics, and write and talk about the subject in a variety of ways;
- develop a feel for number, carry out calculations and understand the significance of the results obtained;
- 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;
- develop an understanding of mathematical principles;
- recognise 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 the abilities to reason logically, to classify, to generalise and to prove;
- appreciate patterns and relationships in mathematics;
- produce and appreciate imaginative and creative work arising from mathematical ideas;
- 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;
- appreciate the interdependence of different branches of mathematics;
- acquire a foundation appropriate to their further study of mathematics and of other disciplines.

Assessment

Paper One (Core)	<i>or</i>	Paper Two (Extended)
<ul style="list-style-type: none">• 1 hour• Grades C-G• Short answer questions• 35% of marks		<ul style="list-style-type: none">• 1 hour 30 mins• Grades A*-E• Short answer questions• 35% of marks
In addition to		
Paper Three (Core)	<i>or</i>	Paper Four (Extended)
<ul style="list-style-type: none">• 2 hours• Structured questions• 65% of marks		<ul style="list-style-type: none">• 2 hours 30 minutes• Structured questions• 65% of marks

Content

Please refer to the syllabus on the website for all components. These include, but are not exclusive to, number notation, fractions, percentages, ratio, measures, finance, graphs, functions, algebra, indices, geometry, equations, trigonometry, statistics, probability and vectors.

OPTION A

BUSINESS STUDIES (0450)

Aims are to;

- make effective use of relevant terminology, concepts and methods and recognise the strengths and limitations of the ideas used;
- apply their knowledge and critical understanding to current issues and problems in a wide range of appropriate contexts;
- distinguish between facts and opinions, and evaluate qualitative and quantitative data in order to help build arguments and make informed judgments;
- appreciate the perspectives of a range of stakeholders in relation to the environment, individuals, society, government and enterprise;
- develop knowledge and understanding of the major groups and organisations within and outside business and consider ways in which they are able to influence objectives, decisions and activities;
- develop knowledge and understanding of how the main types of businesses and commercial institutions are organised, financed and operated and how their relations with other organisations, consumers, employees, owners and society are regulated;
- develop skills of numeracy, literacy, enquiry, selection and employment of relevant sources of information, presentation and interpretation;
- develop an awareness of the nature and significance of innovation and change within the context of business activities.

Assessment

Paper One	<i>and</i>	Paper Two
<ul style="list-style-type: none">• Short answer questions• 1 hour 30 minutes• 50% of marks		<ul style="list-style-type: none">• Case study questions• 1 hour 30 minutes• 50% of marks

Content

Business activity, the organisation, changing business environment, economic environment, business structure, organisation and control, ownership and internal organisation, financing business activity, marketing, production, financial information and decision making, human needs and rewards, manpower, reasons for regulations, influences on business activity.

INFORMATION AND COMMUNICATION TECHNOLOGY (0417)

Aims are to;

- help candidates to develop and consolidate their knowledge, skills and understanding in ICT and be aware of new and emerging technologies;
- encourage candidates to develop further as autonomous users of ICT;
- encourage candidates to continue to develop their ICT skills in order to enhance their work in a variety of subject areas;
- provide opportunities for candidates to analyse, design, implement, test and evaluate ICT systems;
- encourage candidates to consider the impact of new technologies on methods of working in the outside world and on social, economic, ethical and moral issues;

- help candidates to improve their skills and increase their awareness of the ways in which ICT is used in practical and work-related situations.

Assessment

Paper One (Written)
<ul style="list-style-type: none"> • 2 hours • Multiple choice, short and longer answer questions • 40% of marks
In addition to
Paper Two (Practical)
<ul style="list-style-type: none"> • 2 hours and 30 minutes • Based on computer skills • 30% of marks
In addition to
Paper Three (Practical)
<ul style="list-style-type: none"> • 2 hours and 30 minutes • Based on computer skills • 30% of marks

Content

Types and components of computer systems, input and output devices, storage devices and media, computer networks, data types, the effects of using ICT, the ways in which ICT is used, systems analysis and design.

Music (0410)

Aims are to;

- enable candidates to acquire and consolidate a range of basic musical skills, knowledge and understanding, through the activities of listening, performing and composing
- help candidates develop a perceptive, sensitive and critical response to the main historical periods and styles of Western music help candidates to recognise and understand the music of various non-Western traditions, and thus to form an appreciation of cultural similarities and differences
- provide a foundation for the development of an informed appreciation of music
- provide a foundation for further study in music at a higher level

Assessment

Paper One
<ul style="list-style-type: none"> • Listening • 1 hour 15 minutes • 40% of marks
Paper Two
<ul style="list-style-type: none"> • Performing Coursework • 30% of marks
Paper Three
<ul style="list-style-type: none"> • Composing Coursework • 30% of marks

Content

Please see syllabus contained on the website above for specific content information. Topics include, but are not exclusive to, western and world music, composition techniques and performance techniques.

PHYSICS (0625)

The physics syllabus enables learners to:

- better understand the technological world, with an informed interest in scientific matters
- recognise the usefulness (and limitations) of scientific method, and how to apply this to other disciplines and in everyday life
- develop relevant attitudes, such as a concern for accuracy and precision, objectivity, integrity, enquiry, initiative and inventiveness
- develop an interest in, and care for, the environment
- better understand the influence and limitations placed on scientific study by society, economy, technology, ethics, the community and the environment
- develop an understanding of the scientific skills essential for both further study and everyday life.

Assessment

Paper One (Core)	<i>or</i>	Paper Two (Extended)
<ul style="list-style-type: none">• 45 minutes• Multiple Choice• Grades C-G• 30% of marks		<ul style="list-style-type: none">• 45 mins• Multiple Choice• Grades A*-E• 30% of marks
In addition to		
Paper Three (Core)	<i>or</i>	Paper Four (Extended)
<ul style="list-style-type: none">• 1 hour 15 mins• Short answer and structured questions• 50% of marks		<ul style="list-style-type: none">• 1 hour 15 mins• Short answer and structured questions• 50% of marks
In addition to		
Paper Five	<i>or</i>	Paper Six
<ul style="list-style-type: none">• 1 hour 15 mins• Practical• 20% of marks		<ul style="list-style-type: none">• 1 hour• Experimental Skills paper• 20% of marks

Content

General Physics. Thermal physics. Properties of waves, including light and sound. Electricity and magnetism. Atomic Physics.

OPTION B

ART AND DESIGN (0400)

Aims are to encourage pupils to develop;

- 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 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;
- knowledge of 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.

Assessment

Component One	<i>and</i>	Component Two/Three/Four	<i>Optional</i>
<ul style="list-style-type: none">• Practical examination• 8 hours• 50% of marks		<ul style="list-style-type: none">• Assignment Based• Design/History/Coursework• 50% of marks	

Content

Dependent upon the choice of the teacher with component two, three or four, which can be design, practical work or based upon historical and critical knowledge and skills. Please consult the syllabus.

GEOGRAPHY (0460)

The aims are to encourage pupils 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.

Assessment

Paper One	<i>and</i>	Paper Two
<ul style="list-style-type: none">• Three resource based questions• 1 hour 45 minutes• 45% of marks		<ul style="list-style-type: none">• Map based questions• 1 hour 30 minutes• 27.5% of marks
In addition to		
Paper Three		
<ul style="list-style-type: none">• Paper based alternative to coursework• 1 hour 30 minutes• 27.5% of marks		

Content

Population, settlement, plate tectonics, landforms, weather and climate, human activity and nature, agriculture, industry, leisure, energy and water, the environment.

ADDITIONAL MATHEMATICS (0606)

The aims are to encourage pupils to develop:

- Further knowledge of mathematical concepts and principles
- The extension of mathematical skills and their use in more advanced techniques
- An ability to solve problems, present solutions logically and interpret results

Assessment

Paper One	<i>and</i>	Paper Two
<ul style="list-style-type: none">• Set questions• 2 hours• 50% of marks		<ul style="list-style-type: none">• Set questions• 2 hours• 50% of marks

Content

Set language and notation, functions, quadratic functions, indices and surds, factors of polynomials, simultaneous equations, logarithms, graphs, circular measure, trigonometry, probability, binomial expansions, vectors, matrices, differentiation and integrations, permutation and combination.

BIOLOGY (0610)

The biology syllabus enables learners to:

- better understand the technological world, with an informed interest in scientific matters
- recognise the usefulness (and limitations) of scientific method, and how to apply this to other disciplines and in everyday life
- develop relevant attitudes, such as a concern for accuracy and precision, objectivity, integrity, enquiry, initiative and inventiveness
- develop an interest in, and care for, the environment
- better understand the influence and limitations placed on scientific study by society, economy, technology, ethics, the community and the environment

- develop an understanding of the scientific skills essential for both further study and everyday life.

Assessment

Paper One (Core)	<i>or</i>	Paper Two (Extended)
<ul style="list-style-type: none"> • 45 minutes • Multiple Choice • Grades C-G • 30% of marks 		<ul style="list-style-type: none"> • 45 mins • Multiple Choice • Grades A*-E • 30% of marks
In addition to		
Paper Three (Core)	<i>or</i>	Paper Four (Extended)
<ul style="list-style-type: none"> • 1 hour 15 mins • Short answer and structured questions • 50% of marks 		<ul style="list-style-type: none"> • 1 hour 15 mins • Short answer and structured questions • 50% of marks
In addition to		
Paper Five	<i>or</i>	Paper Six
<ul style="list-style-type: none"> • 1 hour 15 mins • Practical • 20% of marks 		<ul style="list-style-type: none"> • 1 hour • Experimental Skills paper • 20% of marks

Content

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

CONTINUE OVERLEAF

LANGUAGE TWO

BAHASA MELAYU IS A LEGAL REQUIREMENT FOR ALL MALAYSIAN CITIZENS. THE SCHOOL FOLLOWS THE SPM SYLLABUS IN THIS SUBJECT ONLY AND AIMS FOR SPM SINGLE SUBJECT ENTRY FOR STUDENTS WHEN THEY ARE 17 YEARS OLD. ALL STUDENTS SHALL ALSO SIT THE IGCSE MALAY EXAMINATION.

MALAY AS A FOREIGN LANGUAGE (0546)

The aims are to:

- develop the ability to use the language effectively for purposes of practical communication
- form a sound base of the skills, language and attitudes required for further study, work and leisure
- offer insights into the culture and civilisation of countries where the language is spoken
- encourage fuller integration into the local community, where relevant
- develop a fuller awareness of the nature of language and language learning
- encourage positive attitudes toward language learning and towards speakers of other languages and a sympathetic approach to other cultures and civilisations
- provide enjoyment and intellectual stimulation
- complement other areas of study by encouraging skills of a more general application (e.g. analysis, memorising, drawing of inferences).

Assessment

Paper One (Listening)	Paper Two (Reading)
Cambridge does not set a listening paper.	<ul style="list-style-type: none">• 1 hour• 33% of marks
In addition to	
Paper Three (Speaking)	Paper Four (Writing)
<ul style="list-style-type: none">• Approximately 15 minutes• 33% of marks	<ul style="list-style-type: none">• 1 hour• 33% of marks

Content

The syllabus content is organised around five broad Topic areas which provide contexts for the acquisition of vocabulary and the study of grammar and structures. Through the study of these Topic areas, candidates gain insight into target language countries and communities. The Topic areas are:

- everyday activities
- personal and social life
- the world around us
- the world of work
- the international world.

FRENCH AS A FOREIGN LANGUAGE (0520)

The aims are to:

- develop the ability to use the language effectively for purposes of practical communication
- form a sound base of the skills, language and attitudes required for further study, work and leisure
- offer insights into the culture and civilisation of countries where the language is spoken

- encourage fuller integration into the local community, where relevant
- develop a fuller awareness of the nature of language and language learning
- encourage positive attitudes toward language learning and towards speakers of other languages and a sympathetic approach to other cultures and civilisations
- provide enjoyment and intellectual stimulation
- complement other areas of study by encouraging skills of a more general application (e.g. analysis, memorising, drawing of inferences).

Assessment

Paper One (Listening)	<i>and</i>	Paper Two (Reading)
<ul style="list-style-type: none"> • 45 minutes • 25% of marks 		<ul style="list-style-type: none"> • 1 hour • 25% of marks
In addition to		
Paper Three (Speaking)	<i>and</i>	Paper Four (Writing)
<ul style="list-style-type: none"> • Approximately 15 minutes • 25% of marks 		<ul style="list-style-type: none"> • 1 hour • 25% of marks

Content

Pupils must demonstrate skills in reading, writing, speaking and listening using a variety of techniques and texts studied throughout the course.