

# Student Handbook

## Lower Secondary

## Contents

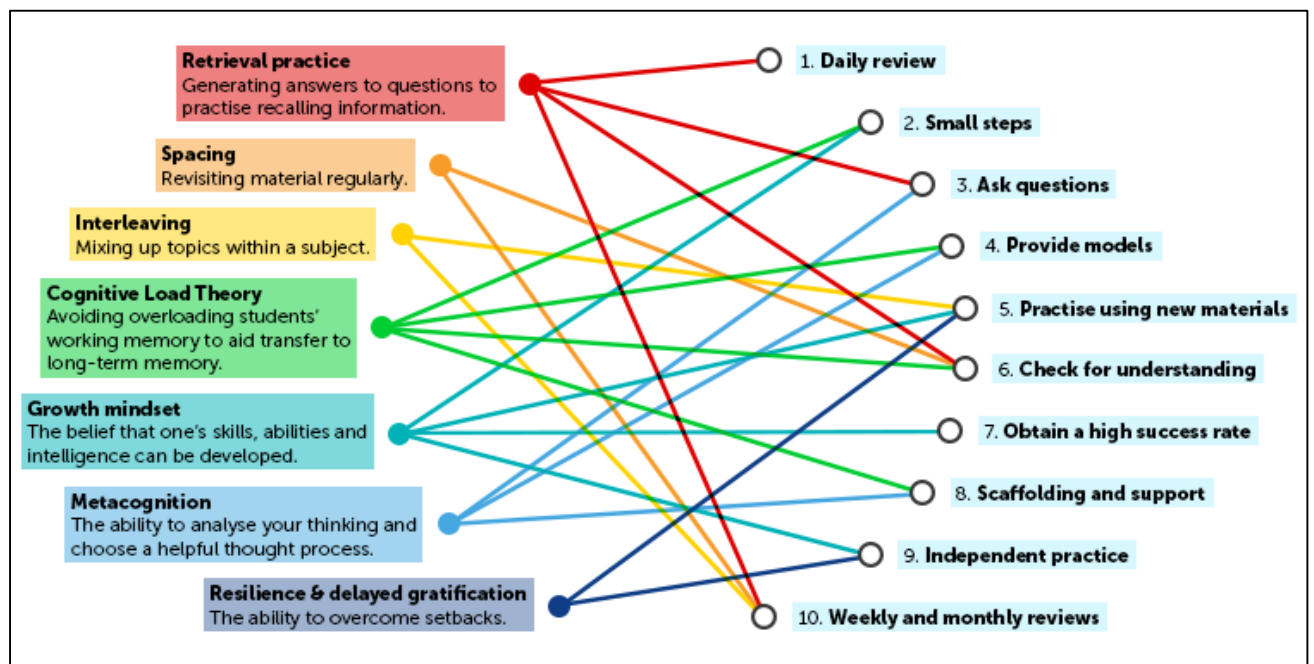
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## Aim and Purpose:

The purpose of this handbook is to provide an overview of the different courses covered within Grades 9&10 at Lae International School. The handbook also covers some important information regarding the assessment, homework, uniform, and behaviour expectations of the school.

At Lae International School we aim to ensure that all students reach their best potential. To do that we ensure that the delivery of subject content is founded in evidence and research. This handbook includes some further information regarding the psychology of learning and the latest research around methods that can support students in their development.

There are 10 principles of learning that underpin the quality teaching and learning that takes place in the school.



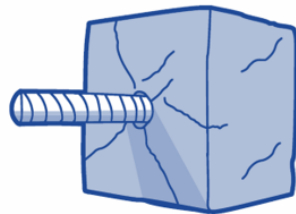
At Lae International School we use these principles of instruction to support the teaching and learning that happens during lessons.

# Lae International School Quality Teaching Principles

<p><b>Planning</b></p> <ul style="list-style-type: none"> <li>• Draws on the teacher's excellent subject knowledge</li> <li>• Predicts and addresses misconceptions</li> <li>• Ensures learning sequences focus on depth of knowledge and application</li> <li>• Ensures activities are carefully chosen to support learning</li> <li>• Includes flexible planning of sequences, unrestrained by the duration of lessons to allow for responsive teaching</li> <li>• Includes teaching key vocabulary through etymology, morphology and vocabulary in context</li> <li>• Ensures teaching to the 'top' with effective scaffolds in place to enable lower attaining students to succeed</li> <li>• Ensures students' needs are catered for through quality-first teaching using additional explanations, scaffolds and models for support, whilst ensuring all students have the opportunity to attempt work before support is made available</li> <li>• Includes designing resources that break down and logically sequence the subject content.</li> <li>• Includes clearly presented material to reduce cognitive load</li> </ul>	<p><b>Feedback</b></p> <ul style="list-style-type: none"> <li>• Addresses and re-teaches misconceptions to close gaps</li> <li>• Includes clear next steps and follow-up tasks</li> <li>• Focuses on future improvement and development</li> <li>• Uses whole class feedback for summative assessments</li> <li>• Feedback is given close to the point of action</li> <li>• Most feedback is 'live' and given in the lesson whilst circulating</li> <li>• Is adaptive and based on the student's needs</li> </ul>	<p><b>Explanations</b></p> <ul style="list-style-type: none"> <li>• Breaks material down into smaller parts</li> <li>• Anticipates the novelty of material by accounting for students' prior knowledge</li> <li>• Includes explaining the meaning of key vocabulary</li> <li>• Avoids missing links between ideas so each idea flows from one to another</li> <li>• Includes diagrams, models, worked examples or concrete representations</li> <li>• Includes 'thinking aloud' when explaining procedures</li> <li>• Includes explicit links between current material and already learnt material</li> </ul>
<p><b>Retrieval practice</b></p> <ul style="list-style-type: none"> <li>• Is spaced and sequenced</li> <li>• Ensures students are exposed to material that may have been taught weeks or months ago, as well as more recently</li> <li>• 'Activates' prior knowledge which will be built on in the lesson</li> <li>• Ensures all students are thinking and retrieving</li> </ul>	<p>Whilst all elements might not be observable in short periods of time these seven key areas should <b>underpin</b> all our lessons.</p>	
<p><b>Classroom management</b></p> <ul style="list-style-type: none"> <li>• Consistently follows school rules and routines</li> <li>• Marked by deliberate use of language to create a calm and purposeful environment</li> <li>• Includes insisting on silence during independent work</li> <li>• Includes clear transitions between tasks to ensure they are completed immediately with no time wasted</li> <li>• Intolerant of disruption</li> </ul>	<p><b>Modelling</b></p> <ul style="list-style-type: none"> <li>• Demonstrates excellence so that exemplar material is of the highest standard</li> <li>• Includes demonstrating processes and procedures by breaking models down into steps</li> <li>• Includes live modelling to demonstrate processes and procedures in 'real time'</li> <li>• Includes spoken language such as speaking in full sentences and demonstrating use of subject-appropriate and wider vocabulary</li> <li>• Pre-empt and addresses student misconceptions and gaps in knowledge</li> <li>• Reinforces expectations of presentation of student work</li> </ul>	<p><b>Questioning</b></p> <ul style="list-style-type: none"> <li>• Includes 'call by name' as the default style</li> <li>• Promotes answering in full sentences</li> <li>• Allows for deeper thinking by asking for justifications of answers</li> <li>• Does not accept 'I don't know' answers by scaffolding or revisiting</li> <li>• Leads to the 'best' answer</li> <li>• Includes as many students as possible in every lesson through the use of tools such as mini-whiteboards.</li> <li>• Follows the Agree/Build/Challenge format of questioning to promote metacognition</li> </ul>

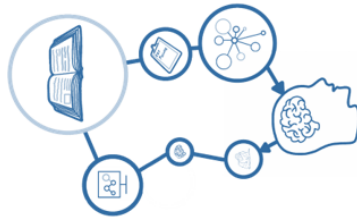
## How children learn

### Concrete Examples



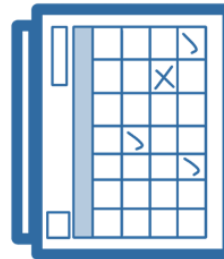
TAKE A DIFFICULT TOPIC OR CONCEPT AND TRY AND FIND AN EXAMPLE/S THAT MAKES UNDERSTANDING IT EASIER.

### Elaboration



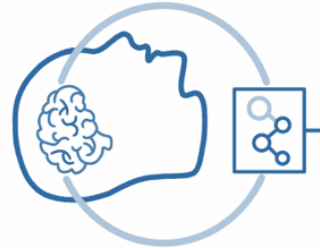
ASK HOW AND WHY WHEN REVISING A KEY TOPIC, COME UP WITH DIFFERENT WAYS OF ASKING THE QUESTION. THEN MAKE SURE YOU KNOW THE ANSWER!

### Spacing



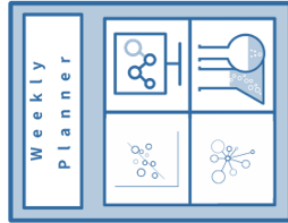
PLAN YOUR LEARNING, ORGANISE YOUR WORK, REVISE WORK OVER TIME IN SMALL CHUNKS. RECORD YOUR LEARNING.

### Retrieval



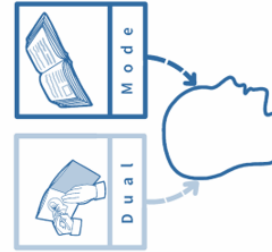
REVISE AND LEARN KEY CONCEPTS BY QUESTIONING, BRINGING BACK INFORMATION AND CONNECTIONS WITHOUT USING YOUR NOTES.

### Interleaving



WHEN REVISING, SWITCH BETWEEN TOPICS OR SUBJECTS, OR EVEN PROBLEMS YOU ARE SOLVING, SO YOU COVER A RANGE OF MATERIAL.

### Dual Coding



USE VERBAL AND VISUAL NOTES TO LEARN AND RECALL SUBJECT MATTER. USE SKETCH NOTES AND MIND MAPS WITH NOTES.

Above are some specific strategies that can support students when learning new content. Research spanning 40 years supports these strategies; at the school our quality teaching principles align with this.

## Assessment Policy

Our assessment policy is included in the student diary of all students. Assessment in Grades 9&10 aims to be:

- Aligned with curriculum and pedagogy.
- Equitable for all students.
- Evidence-based, using established standards and continua to make defensible and comparable judgments about students' learning.
- Ongoing, with a range and balance of evidence compiled over time to reflect the depth and breadth of students' learning.
- Transparent, to ensure confidence in the processes used, the information obtained and the decisions made.
- Informative of where students are in their learning.

High-quality assessment is characterised by three attributes:

- Validity, through alignment with what is taught, learnt and assessed.
- Accessibility, so that each student is given opportunities to demonstrate what they know and can do.
- Reliability, so that assessment results are consistent, dependable or repeatable.

Questions regarding the policy should be directed to the **Heads of Campus, Deputy Principal or Principal**.

To ensure the assessment policy is consistently applied it will be revisited at the beginning of each semester in home room classes.

Key processes will be revisited:

- When the assessment calendar is published.
- When each task is handed to students.
- In the school's newsletter and by email in response to phases of the assessment cycle.

Students are expected to:

- Engage in the learning for the subject or course of study.
- Produce evidence of achievement that is authenticated as their own work.
- Submit responses to scheduled assessment **on or before the due date** (this includes written, spoken and produced tasks).

Due dates for final responses are published in the assessment calendar. Due dates for checkpoints, drafts and final submissions will be made explicit on all assessment tasks.

The assessment calendar will provide the due date of all summative tasks. These due dates will:

- Provide sufficient working time for students to complete the tasks.
- Be clear to teachers, students and parents/carers.
- Be consistently applied.
- Be clearly communicated by the end of Week 3 each term.

Students are responsible for:

- Recording due dates in their diaries.
- Planning and managing their time to meet the due dates.
- Informing the school as soon as possible if the due date for any assessment task is unlikely to be met so that appropriate procedures can be put in place.

## Homework Expectations

Lae International School values the role of homework in further developing all of our students to ensure they all reach their best potential. There has been much research worldwide on the impact of homework in primary and secondary school. It is widely accepted that homework that is meaningful and time appropriate for different grade levels has a significant positive impact on the progress of students. The homework supplied is designed to promote forgetting and retrieval of information from the long term memory. Students may work on content that was taught during the week, the week before, or even the month before. This ensures that students are systematically strengthening their ability to retrieve the knowledge acquired in lessons throughout the year. Homework gives students the opportunity to develop the IEA key outcome of analysing and solving problems. Students will develop their independent self-regulation and metacognitive skills ensuring they are able assess their own progress whilst planning, doing, and evaluating performance on homework tasks.

### Aims:

1. To encourage children to establish a routine of regular work.
2. To give children practice and immediate reinforcement of work conducted at school.
3. To give feedback to parents as to the type of work their child is doing at school and to gauge the success of that work.
4. To give a guide to the teacher if further assistance or teaching is required in that area.
5. Allow children to organise their time around other activities.

### Types of homework:

Type	Definition	Example
<b>Completion</b>	In the event that there is incomplete work from the lessons student may asked to complete it at home.	Students have planned and begun to write a short story using their plan. The stories are unfinished but students are well equipped to complete the independently.
<b>Practice</b>	The homework is designed to practice the skills taught during the lesson.	Students have been taught a specific equation in science. The teacher supplies them with a question sheet with questions relating to the use of the equation.
<b>Preparation</b>	Homework is given to prepare students for the content to be taught in an upcoming course of lessons.	A teacher supplies students with a knowledge organiser that gives an overview of the different areas to be taught. This gives students some initial exposure to the learning prior to explanations and modelling.
<b>Extension</b>	Any homework that requires to students to further research the application of a current topic being taught. This type of homework is designed to expand on classroom learning. It often requires students to think critically, be creative, and problem solve.	Having learnt about rhythm in music. The teacher asks students to research and explore some examples of how the rhythm in popular music can impact a listeners emotions and feelings.



### Guidance for homework time allocation throughout the school:

Grade	Time Recommended per evening
1	20 minutes and 15 minutes reading
2	20 minutes and 15 minutes reading
3	20 minutes and 15 minutes reading
4	40 minutes and 20 minutes reading
5	40 minutes and 20 minutes reading
6	40 minutes and 20 minutes reading
7	1.5 hours and 1 hour reading
8	1.5 hours and 1 hour reading
9	2 hours and 1 hour reading
10	2 hours and 1 hour reading
11	2.5 hours and 1 hour reading
12	2.5 hours and 1 hour reading

### Advice to students:

- Students should inform their teachers if they are finding it difficult to cope with the homework demands. As stated above, any consideration of extension of deadlines requires advanced warning. If they simply do not complete the work, then it will be recorded as not completed.
- If students find it difficult to understand what is expected of them when the teacher sets the homework in class, they need to ensure they ask for the task to be re-explained. This will ensure all students have clarity of what they need for homework completion.
- Where work is set with a deadline that is several days or a week away, students are advised to record it and plan the days that they are going to use to complete it. This will prevent them leaving it to the last minute and having a large amount of work to complete.
- Students should maintain a good balance - sport, music and other interests are all important parts of their educational lives. However, school work should take precedence over other external activities.
- Students are encouraged to speak to their teachers about any uncertainties that they may have.

### Advice to parents/carers:

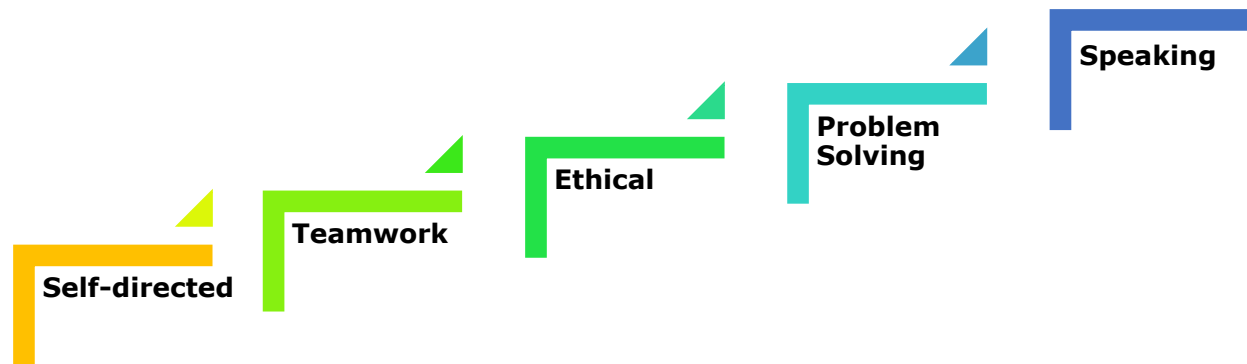
- Wherever possible, make sure that you have a set time when your child completes their homework, and monitor this period.
- Students who are distracted by other activities (such as computer, games etc) and start their homework late will finish it late.
- Try to remove distractions during this time - make sure that students have a quiet, well organised space to complete their work.
- Try to discuss your child's homework with them - discuss deadlines, how they are going to meet them, what is expected etc. Not only will this allow you to understand the demands of the curriculum, but you will also be better placed to help them if they run into trouble.
- It is vital that the students have the chance at home to focus on their school work.
- Encourage a balanced lifestyle. Students that have an opportunity to express themselves or to keep fit by playing sport are more likely to be able to focus on their work at home.
- Contact the teacher if you have any concerns. The best way to avoid problems is to open up dialogue sooner rather than later.

## Behaviour Expectations

It is expected that all students attending the Lae International School follow the school's positive behaviour policy. This policy is aligned to the five IEA key outcomes:

1. Behave Ethically – We exhibit appropriateness in any given context and situation
2. Work Collaboratively – We develop good relationships with others and work cooperatively to achieve common goals
3. Communicate Effectively – We process received information and respond appropriately in a range of contexts
4. Self-Directing – We develop positive visions, initiate ideas and contribute meaningfully.
5. Analyse and Solve Problems – We are critical thinkers and adaptable to solve problems in increasingly complex ways

In the school we take the STEPS to success:



**LIS students are expected to:**

- Complete schoolwork in class and at home to the best of my ability
- Abide by the rules of the school as set by the LIS Positive Behaviour Policy
- Wear the correct school uniform in a neat and tidy manner both during school time and outside of school
- Speak in a respectful manner to my classmates and teachers
- Safe usage of computers and other technology devices as per the LIS Positive Behaviour Policy
- Submit mobile phones to the office if bought to school
- Refrain from alcohol, cigarettes, illegal drugs and any other banned substances during any school event
- Refrain from any form of bullying, teasing or intimidation of my classmates as per the LIS Positive Behaviour Policy.

## Uniform Policy

A school's dress code can play an important role in promoting a positive image of the school and creating a sense of identity. Wearing the school uniform is expected of all students from Prep – Grade 12. Uniforms can be purchased through the school office.

### Aims:

1. To foster and enhance the public image of the school
2. To assist in building school and team spirit and pride
3. To encourage equity amongst students
4. To assist students to understand that society has dress and safety codes

### Implementation

It is a condition of enrolment that students will wear the correct uniform. Students who are unable to wear the uniform on any particular day should bring a note of explanation from their parent / guardian. A school cap / hat is available as part of the uniform and should be worn during sporting activities.

<b>GIRLS</b> School Shirt Navy Blue Skirt, Skort, Shorts or trousers White socks Navy Blue school cap / hat (primary only)  Sports Uniform Blue school shorts Sports shirt (house colour) White socks Runners / Trainers	<b>BOYS</b> School shirt Navy Blue school shorts or trousers White socks Navy Blue school cap / hat (primary only)  Sports Uniform Blue school shorts Sports shirt (house colour) White socks Runners / Trainers
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### Note:

- Students with PE on Friday should change into their house shirt.
- Uniforms are compulsory and students are encouraged to take pride in themselves and their uniform
- Appropriate footwear is essential and thongs are not permitted
- No T-shirts are to be visible underneath the uniform
- No bleached/faded shorts/shirts; missing buttons are to be replaced

### Grooming:

- Fingernails are to be clean; no nail polish
- Teeth must be brushed
- No make-up (of any kind) is to be worn
- Long hair (shoulder length or longer) is to be tied back
- Hair is to be trimmed neatly. No rasta, rats tails, etc.

**Personal Accessories:**

- One pair of earrings can be worn (studs or sleepers only)
- A watch may be worn
- No bracelets of any kind are to be worn including promotional rubber wrist bands
- No rings are to be worn
- A religious necklace such as a small cross or medal is permitted; Rosary beads or scapulas should not be seen; no beaded necklaces or bracelets.

## PNG Lower Secondary Syllabus

The PNG National Examinations are compulsory for all students in Grade 9&10. The National Curriculum Statement states that education in Papua New Guinea is outcomes based. The school offers the following subjects towards the national exams.

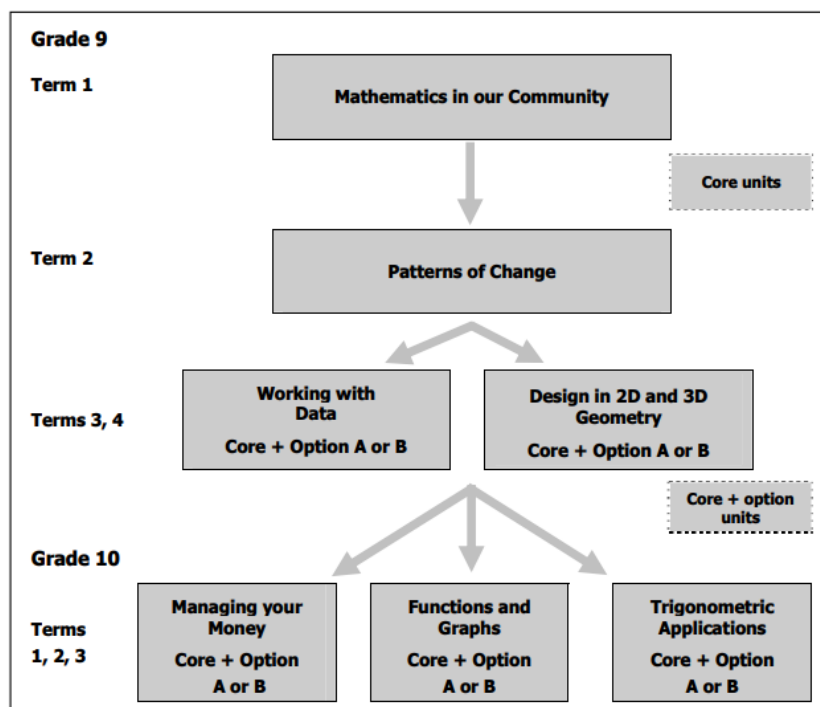
### Mathematics

#### **Broad learning outcomes**

The Mathematics broad learning outcomes are statements that identify the knowledge, skills, attitudes and values all students achieve or demonstrate by the end of Grade 10. The broad learning outcomes for Mathematics are listed below. Students can:

1. Demonstrate an understanding of traditional and contemporary mathematics in Papua New Guinea
2. Identify and apply mathematical skills in everyday life
3. Investigate and solve mathematical problems
4. Communicate mathematical processes and results, both orally and in writing
5. Undertake investigations individually and cooperatively in which mathematics can be applied to solve problems.

The strands describe the dimensions of the subject. They are broad, organising structures that define ways of approaching learning in mathematics. They incorporate cross-curriculum learning and skills and are woven through the units within Mathematics. The content of the mathematics subject area is organised into five strands – number and application, shape and space, measurement, chance and data, and patterns and algebra. Each syllabus unit focuses on one or two of these strands. Students who complete the Lower Secondary Mathematics units will have achieved the broad learning outcomes in all of the strands.



## English

### Broad learning outcomes

The English broad learning outcomes are statements that identify the knowledge, skills, attitudes and values all students achieve or demonstrate at the end of Grade 10. The broad learning outcomes for English are listed below. Students can:

1. Use and understand English structures and forms according to rules and conventions for functional and creative purposes.
2. Communicate ideas and information in a variety of ways (written, oral, and visual) according to purpose, audience and context.
3. Respond to and analyse a variety of texts on a range of issues from Papua New Guinea and the world.
4. Respond to and value different cultures through the study of literature and other texts.

The English syllabus is organised into units using the three strands; reading and viewing, writing and listening and speaking. In these units students will use a range of texts and show understanding of these texts by exploring the contexts in which they are produced and critically analysing different perspectives. The study of English is important for making meaning of texts. As students produce and engage with these texts they develop multiple strategies as readers, viewers, writers, listeners and speakers.

<b>Literature</b>	
Literary texts are characterised by the aesthetic use of language and the imagination to shape, explore, reproduce understandings about, reflect on, represent, and speculate about human experience through the construction of real and imagined (including virtual) worlds. Literary texts can be <i>narrative</i> (narrating events) or <i>non-narrative</i> (reflecting upon events and issues) such as:	
Classic and Contemporary Literature	Popular Literature
<ul style="list-style-type: none"><li>• traditional stories, legends, myths</li><li>• short stories</li><li>• novels (adventure, fantasy, mystery, science fiction, crime, spy, romance, western)</li><li>• reflective/literary essays</li><li>• eulogies and orations</li><li>• biographies and autobiographies</li><li>• rhymed and action verse</li><li>• ballads (including traditional/folk and literary ballads)</li><li>• lyric poems (including songs, haiku, odes, poems/songs of social comment, sonnets)</li><li>• short plays</li><li>• mask dramas</li></ul>	<ul style="list-style-type: none"><li>• diary or journal entry (recording and reflecting on personal experience)</li><li>• cartoon strips, photo stories, picture stories, captions</li><li>• narrative films</li><li>• public speeches and debates</li><li>• formula verse (including limericks, shape poems, cinquains)</li><li>• acrostic poems, alphabet poems, syllable poems, theme poems</li><li>• song lyrics</li><li>• street theatre</li><li>• skits, sketches</li><li>• radio plays</li></ul>

<b>Media</b>
Mass-media texts are those produced in a variety of paper and electronic media for a mass audience. They are used to communicate, entertain, inform and/or persuade. They can be print, images or a combination of both. Mass media texts include: <i>reports</i> (reporting on events, phenomena, issues) and <i>expositions</i> (explaining and analysing events, phenomena, issues) such as: <ul style="list-style-type: none"><li>• advertisements and classifieds (newspapers, radio, television, magazines and signboards)</li><li>• newspapers and magazines (editorials, letters to the editor, feature articles and stories, special reporting such as crime, sports issues, social issues)</li><li>• computer games and computer interaction (e.g. accessing databases and software programs), web pages</li><li>• television programs (cartoons, drama, children's programs, soap opera, serials etc.)</li><li>• media news reports, documentaries and current affairs</li><li>• video clips, feature films, DVDs</li><li>• radio and television features and commercial scripts and radio talkback</li><li>• film and book reviews</li></ul>

## Everyday Texts

Everyday texts are those associated with education, leisure, work, family and daily life. They are used to communicate, entertain, inform and/or persuade. They can be print, images or a combination of both. Everyday texts include: *transactions* (negotiating relationships, information, goods and services) and *procedures* (directing, explaining), such as:

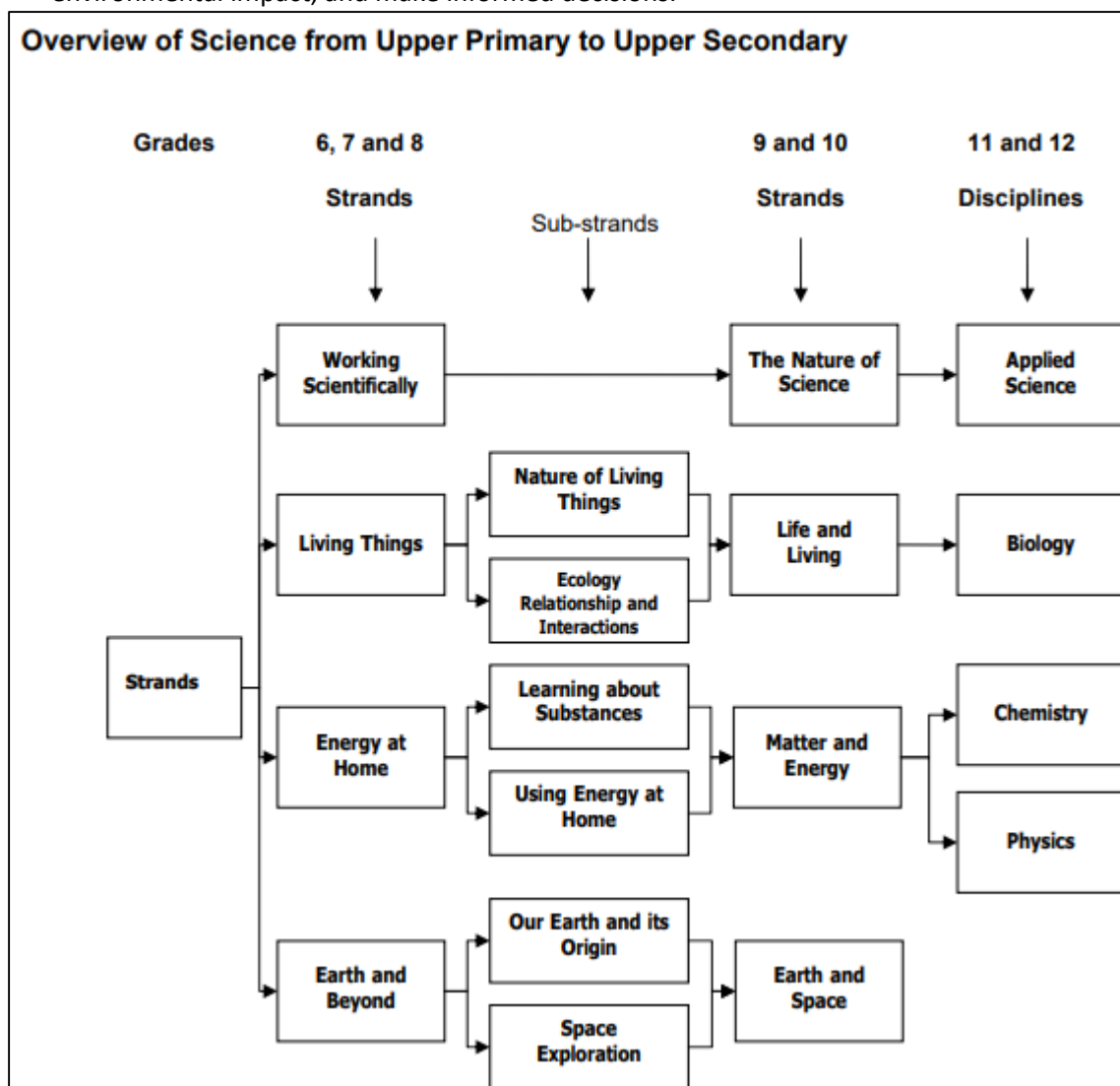
- journals and diaries
- instructions, labels, captions, pamphlets, brochures, posters and leaflets
- messages, questionnaires, and forms
- personal and business letters, invitations, apologies, complaints
- telephone conversations, speeches and public addresses, assemblies
- artworks
- arguments (written or spoken) which communicate a point of view
- discussions and debates
- information texts (spoken, written and visual), recounts, descriptions, observations, comments and explanations, instruction manuals
- notes, summaries and essays
- group work , reports, surveys and questionnaires
- daily bulletin, school magazines, newsletters and notices
- formal meeting procedures, minutes
- job applications (curriculum vitae and resumes), interviews

## Science

### Science broad learning outcomes

The Science broad learning outcomes are statements that identify the knowledge, skills, attitudes and values all students should achieve or demonstrate at the end of Grade 10. The broad learning outcomes are linked to the unit learning outcomes. Students can:

1. Demonstrate an understanding of fundamental scientific principles and models.
2. Apply scientific thinking, process and motor skills to ask questions, investigate and find solutions.
3. Compare traditional and contemporary science methods used to generate and verify knowledge and explain natural phenomena.
4. Communicate findings of scientific investigation in a variety of ways.
5. Analyse past, present and future scientific developments and their socio-economic and environmental impact, and make informed decisions.





## Personal Development

### Broad learning outcomes

The Personal Development broad learning outcome are statements that identify the knowledge, skills, and attitudes and values all students should achieve or demonstrate at the end of Grade 10. The broad learning outcomes for Personal Development are listed below. Students can:

1. Demonstrate an understanding of and apply knowledge and skills for healthy, physical, social, emotional and spiritual living.
2. Develop knowledge and skills to understand and manage issues and safety including HIV and AIDS.
3. Demonstrate an understanding of a range of physical activities and participate in them to improve fitness.
4. Clarify personal values, attitudes, beliefs and behaviour and recognize factors that influence them.
5. Demonstrate an understanding of issues related to gender, ethnicity, culture and universal values.
6. Demonstrate an understanding of the process and skills of conflict resolution in a variety of situations.

Grade 9 core units		Grade 10 core units	
<b>9.1 Who am I?</b> <i>30 periods</i> <i>3 periods a week</i> <ul style="list-style-type: none"> <li>• Exploration of self</li> <li>• Esteem of self and others and influences</li> <li>• Relationships</li> <li>• Skills in relationships</li> <li>• Problem solving skills in relation to me and my relationships</li> <li>• Assertive communication</li> </ul>	<b>Sport and Fitness</b> <i>20 periods</i> <i>2 periods a week</i> <ul style="list-style-type: none"> <li>• What do I need to know about the sport or fitness activity</li> <li>• Skills development</li> <li>• Team work and fair play</li> <li>• Skills application</li> </ul>	<b>10.1 Reproductive and Sexual Health</b> <i>30 periods</i> <i>3 periods a week</i> <ul style="list-style-type: none"> <li>• Reproductive systems</li> <li>• Sexual relationships</li> <li>• Family planning and contraception</li> <li>• Sexually transmitted infections (STIs)</li> <li>• HIV/ AIDS</li> <li>• Strategies for keeping myself safe</li> <li>• Peer education</li> </ul>	<b>Sport and Fitness</b> <i>20 periods</i> <i>2 periods a week</i> <ul style="list-style-type: none"> <li>• What do I need to know about the sport or fitness activity</li> <li>• Skills development</li> <li>• Team work and fair play</li> <li>• Skills application</li> <li>• Fitness</li> </ul>
<b>9.2 Fitness and Me</b> <i>30 periods</i> <i>3 periods a week</i> <ul style="list-style-type: none"> <li>• Anatomy and physiology in relation to fitness</li> <li>• Fitness</li> <li>• Prevention and care of sports injuries</li> </ul>	<b>Sport and Fitness</b> <i>20 periods</i> <i>2 periods a week</i> <ul style="list-style-type: none"> <li>• What do I need to know about the sport or fitness activity</li> <li>• Skills development</li> <li>• Team work and fair play</li> <li>• Skills application</li> </ul>	<b>10.2 Family and Relationships</b> <i>30 periods</i> <i>3 periods a week</i> <ul style="list-style-type: none"> <li>• Family</li> <li>• Value of community</li> <li>• Peers</li> <li>• Groups young people belong to</li> </ul>	<b>Sport and Fitness</b> <i>20 periods</i> <i>2 periods a week</i> <ul style="list-style-type: none"> <li>• What do I need to know about the sport or fitness activity</li> <li>• Skills development</li> <li>• Team work and fair play</li> <li>• Skills application</li> <li>• Fitness</li> </ul>

<b>9.3 Health</b> 30 periods 3 periods a week <ul style="list-style-type: none"> <li>• Preventive health care</li> <li>• Communicable and non-communicable diseases</li> <li>• First aid and safety</li> <li>• Drug and substance abuse</li> <li>• Puberty and sexual health</li> <li>• HIV and AIDS</li> </ul>	<b>Sport and Fitness</b> 20 periods 2 periods a week <ul style="list-style-type: none"> <li>• What do I need to know about the sport or fitness activity</li> <li>• Skills development</li> <li>• Team work and fair play</li> <li>• Skills application</li> </ul>	<b>10.3 Universal Values</b> 30 periods 3 periods a week <ul style="list-style-type: none"> <li>• Universal values</li> <li>• Influences of universal values</li> <li>• Role models</li> </ul>	<b>Sport and Fitness</b> 20 periods 2 periods a week <ul style="list-style-type: none"> <li>• What do I need to know about the sport or fitness activity</li> <li>• Skills development</li> <li>• Team work and fair play</li> <li>• Skills application</li> <li>• Fitness</li> </ul>
<b>9.4 The PNG Way</b> 30 periods 3 periods a week <ul style="list-style-type: none"> <li>• PNG identity</li> <li>• PNG traditions</li> <li>• PNG way in the future</li> <li>• Community conflict resolution</li> <li>• Restore peace and harmony</li> <li>• Conflict resolution skills</li> <li>• The spiritual world and beliefs</li> </ul>	<b>Sport and Fitness</b> 20 periods 2 periods a week <ul style="list-style-type: none"> <li>• What do I need to know about the sport or fitness activity</li> <li>• Skills development</li> <li>• Team work and fair play</li> <li>• Skills application</li> </ul>	<b>Grade 10 Option Unit</b> <b>Sports Administration</b> <ul style="list-style-type: none"> <li>• PNG sporting structure</li> <li>• Event management</li> <li>• Sports code of ethics</li> </ul>	<b>Sport and Fitness</b> 20 periods 2 periods a week <ul style="list-style-type: none"> <li>• What do I need to know about the sport or fitness activity</li> <li>• Skills development</li> <li>• Team work and fair play</li> <li>• Skills application</li> </ul>

## Social Science

### Broad learning outcomes

The Social Science broad learning outcomes identify the knowledge, skills, attitudes and values all students achieve or demonstrate at the end of Grade 10. The broad learning outcomes for Social Science are listed below. Students can:

1. Communicate ideas and information in a variety of ways.
2. Explain the relationships between people, space, places and events through time.
3. Explain the relationships between natural and built environments in Papua New Guinea and the world.
4. Demonstrate an understanding of issues relating to sustainable, ethical allocation and management of resources.
5. Apply the social science skills of inquiry, observation, classification, recording and interpreting.
6. Demonstrate understanding of personal responsibilities in relation to a sustainable society and environment.

Unit	Title	Extension
<b>9.1</b>	<b>Places in the Pacific Region</b>	<b>Climate and Its Effects</b>
<b>9.2</b>	<b>Population Change, Resources and Migration</b>	<b>Land, Law and People in Papua New Guinea</b>
<b>9.3</b>	<b>Investigating Papua New Guinea History</b>	
<b>9.4</b>	<b>Civics and Citizenship</b>	<b>Comparative Study of Systems of Government</b>
<b>10.1</b>	<b>Resource Development and Management</b>	
<b>10.2</b>	<b>Environment Change, Pollution and Solutions</b>	<b>Global Environmental change</b>
<b>10.3</b>	<b>Papua New Guinea and the Global Community</b>	<b>International Relationships in Action</b>
<b>Option 1</b>	<b>Think Globally, Act Locally</b>	

## ICT

### Broad learning outcomes

The Design and Technology subject field broad learning outcomes are statements that identify the knowledge, skills, attitudes and values all students should achieve or demonstrate by the end of Grade 10. The broad learning outcomes for the Design and Technology subject field are:

1. Use the design process to produce appropriate solutions.
2. Apply safe and appropriate codes and practices in the classroom.
3. Apply knowledge and understanding of processes through identifying, selecting and using various materials or systems.
4. Demonstrate a range of practical skills and techniques.
5. Evaluate the appropriateness of materials or systems used to produce a product.
6. Communicate ideas and information in a variety of ways.

The course includes:

Principles and Practice
Computer Basics
Word Processing
Presentation graphics
Spreadsheets

## Business Studies

Business Studies expands on the current Commerce course, enabling students to study a wide range of concepts not only for commerce but to develop knowledge and skills for the world of business. There are four core units and three optional units in Grade 9 and five core units and three optional units in Grade 10. All students in Grade 9 must complete the four (4) core units and choose two (2) units from the options available. All students in Grade 10 must complete the five (5) core units and study one (1) option unit.

Grade	Length (weeks)	Term	Unit	Resources
<b>9</b>	10	1	9.1 Satisfying Needs and Wants	Appropriate Commerce or Business Studies text books  Newspapers  Basic office equipment  (Teachers must ensure that they are not passing on outdated information and/or data)
	5	Any	9.2 Being a Wise and Responsible Consumer	
	5		Option	
	5	Any	9.3 Business Communication	
	5		Option	
	10	Any	9.4 My Small Business Project	
<b>10</b>	5	1	10.1 Marketing	
	5		Option	
	10	Any	10.2 Starting a Small Business Enterprise	
	5	Any	10.3 Keeping Accounts for my Business	
	5	Any	10.4 Preparing for the Workplace	
	5	Any	10.5 Laws and Business Regulations in Papua New Guinea	
<b>9 or 10</b>	5	Any	Options Business Mathematics Taxation Computer Applications for Business The Business of Tourism	Computers and business software

Further information on the PNG courses

[PNG Standard Based Education \(SBE\) School Syllabus and Teachers Guides - Papua New Guinea Education News \(pngfacts.com\)](https://edu.pngfacts.com/png-education-resources/png-standard-based-education-sbe-school-syllabus-and-teachers-guides)

<https://edu.pngfacts.com/png-education-resources/png-standard-based-education-sbe-school-syllabus-and-teachers-guides>

# Cambridge International Examinations

## English first language

### Key benefits

Cambridge IGCSE is the world's most popular international qualification for 14 to 16 year olds, although it can be taken by students of other ages. It is tried, tested and trusted.

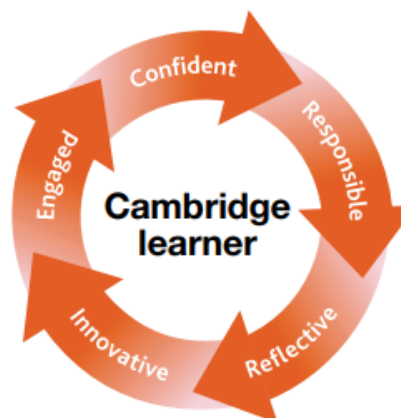
Students can choose from 70 subjects in any combination – it is taught by over 4500 schools in over 140 countries.

Our programmes balance a thorough knowledge and understanding of a subject and help to develop the skills learners need for their next steps in education or employment.

**Cambridge IGCSE First Language English** allows learners to:

- develop the ability to communicate clearly, accurately and effectively when speaking and writing
- learn how to use a wide range of vocabulary, and the correct grammar, spelling and punctuation
- develop a personal style and an awareness of the audience being addressed.

Learners are also encouraged to read widely, both for their own enjoyment and to further their awareness of the ways in which English can be used. Cambridge IGCSE First Language English also develops more general analysis and communication skills such as inference, and the ability to order facts and present opinions effectively.



### Aims

The aims describe the purposes of a course based on this syllabus.

The aims are to enable students to:

- read a wide range of texts, fluently and with good understanding, enjoying and appreciating a variety of language
- read critically, and use knowledge gained from wide reading to inform and improve their own writing
- write accurately and effectively, using Standard English appropriately
- work with information and with ideas in language by developing skills of evaluation, analysis, use and inference
- listen to, understand, and use spoken language effectively
- acquire and apply a wide vocabulary, alongside a knowledge and understanding of grammatical terminology and linguistic conventions.

#### All candidates take:

<b>Paper 1</b>	2 hours
Reading	50%
80 marks	
Structured and extended writing questions	
Questions will be based on three reading texts	
Externally assessed	

#### and:

<b>Paper 2</b>	2 hours
Directed Writing and Composition	50%
80 marks	
Extended writing question and a composition task	
Externally assessed	

## Mathematics

Cambridge IGCSE Mathematics supports learners in building competency, confidence and fluency in their use of techniques and mathematical understanding. This course helps learners to develop a feel for quantity, patterns and relationships. Learners will develop their reasoning, problem-solving and analytical skills in a variety of abstract and real-life contexts.

Cambridge IGCSE Mathematics provides a strong foundation of mathematical knowledge both for candidates studying mathematics at a higher level and those who will require mathematics to support skills in other subjects. The course is tiered to allow all candidates to achieve and progress in their mathematical studies.

### Aims

The aims describe the purposes of a course based on this syllabus.

The aims are to enable students to:

- develop an understanding of mathematical principles, concepts and methods in a way which encourages confidence, provides satisfaction and enjoyment, and develops a positive attitude towards mathematics
- develop a feel for number and understand the significance of the results obtained
- apply mathematics in everyday situations and develop an understanding of the part that mathematics plays in learners' own lives and the world around them
- analyse and solve problems, present the solutions clearly, and check and interpret the results
- recognise when and how a situation may be represented mathematically, identify and interpret relevant factors, select an appropriate mathematical method to solve the problem, and evaluate the method used
- use mathematics as a means of communication with emphasis on the use of clear expression and structured argument
- develop an ability to apply mathematics in other subjects, particularly science and technology
- develop the ability to reason logically, make deductions and inferences, and draw conclusions
- appreciate patterns and relationships in mathematics and make generalisations
- appreciate the interdependence of different areas of mathematics
- acquire a foundation for further study of mathematics or for other disciplines.

#### Core assessment

Core candidates take Paper 1 and Paper 3. The questions are based on the Core curriculum.

Paper 1 (Core)		Paper 3 (Core)	
1 hour	35%	2 hours	65%
56 marks		104 marks	
Short-answer questions		Structured questions	
Externally assessed		Externally assessed	

#### Extended assessment

Extended candidates take Paper 2 and Paper 4. The questions are based on the Extended curriculum.

Paper 2 (Extended)		Paper 4 (Extended)	
1 hour 30 minutes	35%	2 hours 30 minutes	65%
70 marks		130 marks	
Short-answer questions		Structured questions	
Externally assessed		Externally assessed	

- Candidates should have a scientific calculator for all papers.
- Three significant figures will be required in answers (or one decimal place for answers in degrees) except where otherwise stated.
- Candidates should use the value of  $\pi$  from their calculator or the value of 3.142.



## Combined Science

**Cambridge IGCSE Combined Science** enables learners to:

- increase their understanding of the technological world
- take 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.

### Aims

The aims describe the purposes of a course based on this syllabus.

You can deliver some of the aims using suitable local, international or historical examples and applications, or through collaborative experimental work.

The aims are to:

- provide an enjoyable and worthwhile educational experience for all learners, whether or not they go on to study science beyond this level
- enable learners to acquire sufficient knowledge and understanding to:
  - become confident citizens in a technological world and develop an informed interest in scientific matters
  - be suitably prepared for studies beyond Cambridge IGCSE
- allow learners to recognise that science is evidence-based and understand the usefulness, and the limitations, of scientific method
- develop skills that:
  - are relevant to the study and practice of science
  - are useful in everyday life
  - encourage a systematic approach to problem-solving
  - encourage efficient and safe practice
  - encourage effective communication through the language of science
- develop attitudes relevant to science such as:
  - concern for accuracy and precision
  - objectivity
  - integrity
  - enquiry
  - initiative
  - inventiveness
- enable learners to appreciate that:
  - science is subject to social, economic, technological, ethical and cultural influences and limitations
  - the applications of science may be both beneficial and detrimental to the individual, the community and the environment.



**Core candidates take:**

**Paper 1** 45 minutes  
Multiple Choice (Core) 30%  
40 marks  
40 four-option multiple-choice questions  
Questions will be based on the Core subject content.  
Externally assessed

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**and Core candidates take:**

**Paper 3** 1 hour 15 minutes  
Theory (Core) 50%  
80 marks  
Short-answer and structured questions  
Questions will be based on the Core subject content.  
Externally assessed

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**All candidates take either:**

**Paper 5** 1 hour 15 minutes  
Practical Test 20%  
40 marks  
Questions will be based on the experimental skills in section 4.  
Externally assessed

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**Extended candidates take:**

**Paper 2** 45 minutes  
Multiple Choice (Extended) 30%  
40 marks  
40 four-option multiple-choice questions  
Questions will be based on the Extended subject content (Core and Supplement).  
Externally assessed

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**and Extended candidates take:**

**Paper 4** 1 hour 15 minutes  
Theory (Extended) 50%  
80 marks  
Short-answer and structured questions  
Questions will be based on the Extended subject content (Core and Supplement).  
Externally assessed

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**or:**

**Paper 6** 1 hour  
Alternative to Practical 20%  
40 marks  
Questions will be based on the experimental skills in section 4.  
Externally assessed

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## Business Studies

Cambridge IGCSE Business Studies is accepted by universities and employers as proof of an understanding of business concepts and techniques across a range of different types of businesses. Learners will be able to:

- understand different forms of business organisations, the environments in which businesses operate and business functions such as marketing, operations and finance
- appreciate the role of people in business success.

They will also gain lifelong skills, including:

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

### Aims

The aims describe the purposes of a course based on this syllabus.

The aims are to enable students to:

- apply their knowledge and critical understanding to current issues and problems in a wide range of business contexts
- make effective use of relevant terminology, concepts and methods, and recognise the strengths and limitations of the ideas used in business
- distinguish between facts and opinions, and evaluate qualitative and quantitative data in order to help build arguments and make informed judgements
- appreciate the perspectives of a range of stakeholders in relation to the business 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 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 use 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
- acquire a foundation for further study of business or other subjects.

#### All candidates take:

**Paper 1** 1 hour 30 minutes  
Short Answer and Data Response 50%  
80 marks  
Four questions requiring a mixture of short answers and structured data responses  
Candidates answer all questions  
Externally assessed

#### and:

**Paper 2** 1 hour 30 minutes  
Case Study 50%  
80 marks  
Four questions based on a case study, provided as an insert with the paper  
Candidates answer all questions  
Externally assessed

This course provides learners with the ability to understand the rapid change of ICT in a technology-based world and the impact ICT has on the world.

Learners in a modern ICT based world need to have the ability to gather, process and manipulate data; this course helps learners to fulfil this.

Our approach in Cambridge IGCSE Information and Communication Technology encourages learners to be:

**confident**, in applying knowledge and understanding of ICT technologies and using skills to solve ICT problems, both as individuals and working with others

**responsible**, for themselves, responsive to and respectful of others with particular consideration to physical safety and eSafety

**reflective**, in their ability to learn and develop ICT skills

**innovative**, in the way that they use ICT-based solutions to solve problems and identify alternative solutions to solve problems

**engaged**, socially, in the work that they undertake and to interrogate unfamiliar situations to provide ICT-based solutions.

## Aims

The aims describe the purposes of a course based on this syllabus.

The aims are to enable students to develop:

- an understanding of the basic components, use and application of different ICT systems and networks
- the skills to analyse, design, implement, test and evaluate ICT systems
- the skills to understand the impact of current and new technologies on methods of working in the outside world
- the ability to recognise potential risks when using ICT, and use safe, secure and responsible practice.

### All candidates take:

**Paper 1** 1 hour 30 minutes  
Theory 40%  
80 marks  
Questions will be based on sections 1–21 of the subject content  
All questions are compulsory  
Externally assessed

### and:

**Paper 2** 2 hours 15 minutes  
Document Production, Databases 30%  
and Presentations  
70 marks  
This test assesses the practical skills needed to use the applications covered in sections 17, 18 and 19 of the subject content  
Candidates must demonstrate the practical skills relevant to sections 11–16  
All tasks are compulsory  
Externally assessed

### and:

**Paper 3** 2 hours 15 minutes  
Spreadsheets and Website Authoring 30%  
70 marks  
This test assesses the practical skills needed to use the applications covered in sections 20 and 21 of the subject content  
Candidates must demonstrate the practical skills relevant to sections 11–16  
All tasks are compulsory  
Externally assessed

## Other Activities

- During the year students will participate in PE and Sports Activities.
- Students will engage in the school's annual STEM Fair.
- Throughout the year the school has themed weeks such as book week and sustainable week, all students in Grade 9 will participate in this.
- Grade 9 will have the opportunity to attend a trip, this will focus on an opportunity to develop within the five key IEA outcomes through our STEPS to success.



**Cambridge Assessment**  
International Education