

Bukit Merah Secondary School

Secondary 2 Subject Combination Information Kit

Year 2025

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Post Secondary Pathway

Overview

**From 2028,
more post-secondary options
will be available.**

Students taking at least	POST-SEC PATHWAYS					
	ITE Year 1 Entry	ITE Year 2 Entry	Polytechnic Foundation Programme (PFP)	Polytechnic Year 1	Millennia Institute	Junior College
6 G3 subjects	✓	✓	NEW ✓	✓	✓	✓
5 G3 subjects	✓	✓	NEW ✓	✓	✓	NEW ✓
4 G3 + 1 G2 subjects	✓	✓	NEW ✓	NEW ✓		
5 G2 subjects	✓	✓	✓			
4 G1 subjects	✓	NEW* ✓				

*For students who meet ITE's Year 1 academic requirements

Source: <https://www.moe.gov.sg/microsites/psle-fsbb/assets/infographics/full-subject-based-banding/subject-level-requirements-post-sec.pdf>

To explore courses based on aggregate type, score, type of institute and area of interest:

Please visit: <https://www.moe.gov.sg/coursefinder>

COURSES OFFERED IN 2025 JAE

Use **SchoolFinder** at www.moe.gov.sg/schoolfinder to explore junior colleges and Millennia Institute.



Use **CourseFinder** at www.moe.gov.sg/coursefinder to explore courses in polytechnics and ITE.



Admission to Junior Colleges / Millennia Institute

For: Students taking **at least 5 G3 Subjects**

Subject requirements for JC Admission under Revised L1R4 Criteria

Qualifying threshold for JC Eligibility = 16

Component	Subject
L1	English or Higher Mother Tongue Language
R1	Any 1 best-scoring subject from Humanities
R2	Any 1 best-scoring subject from Mathematics or Science
R3	Any 1 best-scoring subject from Humanities, Mathematics or Science
R4	Any 1 best-scoring subject

Subject requirements for MI Admission under Revised L1R4 Criteria

Qualifying threshold for JC Eligibility = 20

Component	Subject
L1	English or Higher Mother Tongue Language
R1	Any 1 best-scoring subject from Humanities
R2	Any 1 best-scoring subject from Mathematics or Science
R3	Any 1 best-scoring subject from Humanities, Mathematics or Science
R4	Any 1 best-scoring subject

Revised Bonus Point System

Maximum of 3 from any combination

Bonus Point(s) is only applicable if student meet qualifying threshold for JC/MI.

Type of Bonus Points	Points
CCA Grade	Excellent: 2 Good: 1
EL and HMTL Grade • A1 to C6 for both subjects	2
Chinese/Malay (Special Programme) or Bahasa Indonesia Grade • A1 to C6	2
Affiliated JC	2

Admission to Polytechnic Year 1

For: Students taking **at least 4 G3 Subjects + 1 G2 Subject**

Note:

- All students will be assessed on a common benchmark of four G3 subjects and one G2 subject, instead of five G3 subjects. Students who offer both [B] subjects at G3 will have their [B] subject with a lower grade mapped from G3 to G2 based on an empirically validated grade mapping table
- Mapping of G2 subjects to G3:

G3 Subject	G2 Subject
A1, A2, B3	1
B4, C5, C6	2
D7	3
E8	4
9	5
-	6

Subject requirements for Poly Year 1 Admission

Net ELR2B2 aggregate score of 22 points or better.

Component	Subject
EL	English Language
R1	Any 1 best-scoring relevant subject in the 1 st Group of relevant subjects*
R2	Any 1 best-scoring relevant subject in the 2 nd Group of relevant subjects*
B1, B2	Best 2 subjects

*Refer to <https://www.moe.gov.sg/coursefinder?journey=Polytechnics> for the relevant subjects

Bonus Point System

The bonus points are subtracted from your gross aggregate scores to obtain the respective net aggregate scores to assess course eligibility and for posting:

Type of Bonus Points	Points
CCA Grade	Excellent: 2 Good: 1

Admission to Polytechnic Foundation Programme (PFP)

For: Students taking **at least 5 G2 Subjects**

Note:

- AY2028 intake: students taking G3 subjects, or a mix of G2 and G3 subjects will be allowed to apply to PFP
- G3 subjects will be mapped to G2 based on the grade mapping table
- Students will be admitted to the PFP in 3 broad clusters instead of a specific diploma course.

	NP	RP	SP	NYP	TP
Cluster					
Sciences	✓	✓	✓	✓	✓
Humanities, Art, Media & Business	✓	✓	✓	✓	✓
Design, Engineering & Technology	✓	✓	✓		
Sub-cluster					
Design				✓	✓
Engineering & Technology				✓	✓
Specific diploma					
Nursing	✓			✓	
Early Childhood Development & Education	✓				✓
Tamil Studies with Early Education	✓				

Subject requirements for PFP Admission

ELMAB3 raw aggregate score of 12 or better (calculated at G2 subject grade)

Component	Subject	Grade requirement
EL	English Language	3
MA	Mathematics	3
B3	Relevant Subject	3
	Two "Best" Subjects	4

Admission to Institute of Technical Education

For: Students taking **at least 4 G1 Subjects**

Note:

- From AY2026 intake, all ITE courses will transition to 3 Year Higher Nitec courses
- From the AY2027 poly intake, Higher NITEC students with a GPA of 3.5 will be guaranteed admission to a polytechnic course mapped to their current Higher NITEC course
- From AY2028 intake, students are able to apply for admission into Year 2 of all 3-Year Higher NITEC courses
- Students who obtain an ELMAB3 aggregate score of 19 points* or better may seek direct entry into Year 2 of Higher NITEC
- For those taking a combination of G3 and G2 subjects, G3 subjects will be mapped to G2 for the computation of the aggregate score)
- Students who offer 4 G1 subjects may first progress to Year 1 of the 3-year Higher Nitec. If a student scores a GPA of 3.7 or better in Year 1 Sem 1 of a 3-Year Higher NITEC course, they can move to Year 2 Sem 2 after a 3-month bridging programme

Eligibility to Secondary 5

This section is pending further updates.

Subject Combinations Important Dates

Date	Activity
Thu 23 Oct 12.30 pm	<ul style="list-style-type: none">• Last day of school• Start of Subject Combination Exercise (online)
Tue 28 Oct 5 pm	<ul style="list-style-type: none">• Deadline to submit choices (online)
Thu 6 Nov 12 pm	<ul style="list-style-type: none">• Release of subject allocation (online)• Start of appeal submissions (hardcopy)
Fri 7 Nov 5pm	<ul style="list-style-type: none">• Deadline to submit appeal form (hardcopy) to General Office
Fri 14 Nov 12 pm	<ul style="list-style-type: none">• Release of appeal results (online)

Subject Combinations offered at BMSS

For: Students taking mainly G3 subjects

Cat	Subject 1	Subject 2	Subject 3	Subject 4	Subject 5	Subject 6	Subject 7
A	English Language	Mother Tongue	Mathematics	Choice of Combined Humanities Social Studies & Geography Or Social Studies & History Or Social Studies & Literature in English	Chemistry*	Physics* Or Biology*	Additional Mathematics*
					Subject Criteria (based on Sec 2 overall results)		
					2 pure science	Mathematics \geq 65% AND Science \geq 70% Additional criteria for Biology: English \geq 55%	
					Additional Mathematics	Mathematics \geq 65% AND \geq 65% in Algebra component	
B	English Language	Mother Tongue	Mathematics	Choice of Combined Humanities Social Studies & Geography Or Social Studies & History Or Social Studies & Literature in English	B1: Chemistry*	B1: Science (Biology, Physics)	Additional Mathematics* Or Principles of Accounts
					Subject Criteria (based on Sec 2 overall results)		
					B2: Physics*	B2: Science (Biology, Chemistry)	
					1 pure science	Mathematics \geq 65% AND Science \geq 65%	
C	English Language	Mother Tongue	Mathematics	Choice of Combined Humanities Social Studies & Geography Or Social Studies & History Or Social Studies & Literature in English	Choice of Combined Science Science (Biology, Chemistry) Or Science (Chemistry, Physics)	C1: Design & Technology Or Art Or Nutrition and Food Science C2: Additional Mathematics*	Core History* Or Principles of Accounts
					Subject Criteria (based on Sec 2 overall results)		
					Core History	Pass in Sec 2 HUM & History \geq 70%	
					Additional Mathematics	Mathematics \geq 65% AND \geq 65% in Algebra component	

For: Students taking **mainly G2 subjects**

Subject	Options
1	• English Language*
2	• Mother Tongue*
3	• Mathematics*
4	Choice of Combined Humanities • Humanities (SS, Geography) * • Humanities (SS, History) *
5	Choice of Combined Science • Science (Physics/Chemistry)* • Science (Chemistry/Biology)*
6	Choice of Electives • Art • Computing (NEW) • Design & Technology • Principles of Accounts
* Subjects offered at G3 Level for eligible students	

For: Students taking **mainly G1 subjects**

Subject	Options
1	• English Language*
2	• Mother Tongue Languages*
3	• Mathematics* • Humanities (non-examinable)
4	• Computing (NEW)
5	Choice of • Elements of Business Studies • Science*
6	Choice of Electives • Design & Technology • Nutrition & Food Science
* Subjects offered at G2 /G3 Level for eligible students	

Subjects Information

For more information on the subjects, refer to GCE O-Level examination syllabuses as follows:

Subject Level	URL	QR Code
G1	https://www.seab.gov.sg/gce-nt-level/nt-level-syllabuses-examined-for-school-candidates-2026/	
G2	https://www.seab.gov.sg/gce-na-level/na-level-syllabuses-examined-for-school-candidates-2026/	
G3	https://www.seab.gov.sg/gce-o-level/o-level-syllabuses-examined-for-school-candidates-2026/	

G3 Subjects

Subject 4 - Combined Humanities

Subject	G3 - Humanities (Social Studies, Geography)
What is the subject about?	<p>Geography emphasizes the integrative study of physical and human environments to enable students to gain a better understanding of their own space and other parts of the world. It also focuses on the interconnectedness among groups of people, and between people and their environment.</p> <p>The geography student can expect to acquire a wide range of knowledge and skills to understand and explain physical and human phenomena, and other contemporary environmental and social issues that occur in different places and cultures</p>
Syllabus	<p>Cluster 1: Geography in Everyday Life <i>Topic 1.1 – Thinking Geographically (4 sub-topics)</i> <i>Topic 1.2 – Sustainable Development (4 sub-topics)</i> <i>Topic 1.3 – Geographical Methods (4 sub-topics)</i></p> <p>Cluster 2: Tourism <i>Topic 2.1 – Tourism Activity (4 sub-topics)</i> <i>Topic 2.2 – Tourism Development (4 sub-topics)</i> <i>Topic 2.3 – Sustainable Tourism Development (4 sub-topics)</i></p> <p>Cluster 4 – Tectonics <i>Topic 4.1 – Plate Tectonics (4 sub-topics)</i> <i>Topic 4.2 – Earthquakes and Volcanoes (4 sub-topics)</i> <i>Topic 4.3 – Disaster Risk Management (4 sub-topics)</i></p>
Assessment (How will the subject be tested?)	<p>Social Studies (50%) which is compulsory and an Elective Component (Geography) (50%).</p> <p>For Geography component:</p> <ul style="list-style-type: none"> • 1hr 45min Pen and Paper exam on the syllabus above • Students will be required to answer one 9-mark essay question, which will be assessed using level descriptors. This question will test their ability to evaluate strategies/evidence and reach well-reasoned conclusions.
Considerations to make before deciding to take the subject.	<p>Ask yourself</p> <ul style="list-style-type: none"> • Do I enjoy learning about environmental systems and human societies? • Am I comfortable analyzing data, reading maps, and interpreting trends? • Can I connect different concepts, think critically, and apply my learning on sustainable resource management in a real-world context?
Progression opportunities	<p>The subject provides strong foundations for both JC (H1/H2 Geography) and polytechnic courses (Environmental Management, Urban Planning, Tourism).</p> <p>These skills are valuable for careers in environmental science, urban planning, business, tourism, and public policy.</p>

Subject	G3 - Humanities (Social Studies, History)
What is the subject about?	<p>History is about an appreciation for past human experiences, critical thinking, and connections between past and present.</p> <p>It equips students with skills to navigate a complex world by analyzing historical forces, events, and perspectives.</p> <p>The curriculum fosters inquiry, source evaluation, and communication of historical knowledge. Students develop critical thinking, discernment, and empathy, enabling them to engage responsibly as global citizens. They learn to assess historical significance, understand change, and respect diverse viewpoints.</p>
Syllabus	<p><u>Unit 1:</u></p> <ul style="list-style-type: none"> • <i>After World War I</i> • <i>Rise of Authoritarian Regime – Case study of Nazi Germany and Militarist Japan</i> • <i>War in Europe and the Asia Pacific</i> <p><u>Unit 2:</u></p> <ul style="list-style-type: none"> • <i>The Cold War – Case study of the Vietnam War and the Korean War</i> • <i>End of the Cold War</i>
Assessment (How will the subject be tested?)	<p>Social Studies (50%) which is compulsory and an Elective Component (History) (50%).</p> <p>For History component:</p> <ul style="list-style-type: none"> • <i>1 hr 50 min (pen and paper)</i> • <i>Format of Paper:</i> <i>Section A (Source-based Case Study) (30 marks)</i> <i>Section B (Essay Questions) (20 marks) – Students are required to answer 2 out of 3 questions.</i>
Considerations to make before deciding to take the subject.	<p>Ask yourself:</p> <ul style="list-style-type: none"> • Am I interested in historical events and how they shaped the world today? • Am I willing to read different sources and think critically about them? • Am I interested in exploring different perspectives on historical events? • Do I want to improve my ability to think critically and argue logically? • Do I want to understand why the world is the way it is today?
Progression opportunities	<p>The subject provides strong foundations for both JC (H1/H2 History) and polytechnic courses (Arts Business Management, Common Arts, Design and Media Programme).</p> <p>The skills learnt in history are valuable for careers in law and government, journalism and media, research and heritage management, education and others.</p>

Subject	G3 - Humanities (Social Studies, English Literature)
What is the subject about?	<p>The study of Literature empowers students to make meaning of texts and see themselves and the world from diverse perspectives.</p> <p>It inspires students to empathise with others, to find their own voice as they reflect on the human condition with discernment, and to consider the impact of their beliefs and actions on society.</p> <p>Students who complete this course in Literature will be:</p> <ul style="list-style-type: none"> • Empathetic and global thinkers • Critical readers • Creative meaning-makers • Convincing communicators
Syllabus	<p>The Literature syllabus engages students in active meaning-making in relation to prose and poetry. The key topics are:</p> <p>a. Five Areas of Study</p> <ul style="list-style-type: none"> • Plot • Character • Theme • Style • Setting and Atmosphere <p>b. Processes: Responding through Dialogue and Writing Dialogue and writing are instrumental to knowledge construction. As such, they will form the foundation for students to demonstrate their thinking and understanding of the text.</p>
Assessment (How will the subject be tested?)	<p>Social Studies (50%) which is compulsory and an Elective Component (English Literature) (50%).</p> <ul style="list-style-type: none"> • 1 hour 40-minute pen and paper exam on the syllabus above. • Students will be required to answer two questions: <p>Section A (25%)</p> <ul style="list-style-type: none"> • Prose – Answer one question from a choice of two essay questions and one passage-based question • The selected prose text for this section is ‘How We Live Now’, Yu-Mei Balasingamchow (ed) <p>Section B (25%)</p> <ul style="list-style-type: none"> • Unseen Poetry – Answer one question from a choice of two unseen* poems • For every year of examination, one question will be set on a Singapore text. <i>(*‘unseen’ refers to poems that have not been taught in class)</i>
Considerations to make before deciding to take the subject.	<p>Ask yourself</p> <ul style="list-style-type: none"> • Do I enjoy reading, analysing and interpreting both prose and poetry? • Am I comfortable uncovering hidden meanings behind words and decoding writer’s intentions? • Am I able to make connections to the texts I am reading on an individual, societal and global level? • Am I comfortable with critical thinking and accepting ambiguity?

	<ul style="list-style-type: none">• Am I able to organise my ideas and express them clearly and coherently?
Progression opportunities	<p>The subject provides strong foundations for both JC (H1/H2 Literature) and polytechnic courses (Mass Communication, Media Studies, Business Management, Arts Business Management or study of languages).</p> <p>These skills are valuable for careers in journalism, publishing, communications, marketing, public relations, tourism, social media management, human resources and education.</p>

Subject 5 and/or 6 – Sciences

Comparison between G3 - Pure and Combined Sciences

	Pure Science	Combined Science
Syllabus	<p>Subject comprise of one science by itself.</p> <ul style="list-style-type: none"> • has greater depth in most topics, • is more rigorous and • has questions require more independent and deep thinking where students are required to <ul style="list-style-type: none"> ○ interpret unfamiliar context and apply what they have learnt about chemical reactions. ○ make sense of the data in order to find how to proceed, connecting knowledge from a few topics, with little scaffolding. 	<p>Two components make up one subject e.g. Science (Chemistry/Biology)</p> <ul style="list-style-type: none"> • has lesser depth in most topics • is less rigorous and • has questions that are more direct and familiar where students <ul style="list-style-type: none"> ○ start off with a familiar context that they would have learnt in class and ○ required to make sense of the data. However, their line of thought to answer the question is scaffolded through steps and are more direct.
Assessment (How will the subject be tested?)	<p>Paper 1 (40 marks; 1h; 30%)</p> <ul style="list-style-type: none"> • MCQ <p>Paper 2 (80 marks; 1h 45min; 50%)</p> <ul style="list-style-type: none"> • Structured and Free-response questions with a compulsory 8 to 12 marks data-based question that requires candidates to interpret, evaluate or solve problems using a stem of information <p>Paper 3 (40 marks; 1h 50min; 20%)</p> <ul style="list-style-type: none"> • Contains two to three compulsory practical questions. • One or more of the questions may incorporate planning of an experiment and require candidates to apply and integrate knowledge and understanding from different sections of the syllabus. • May include questions on data-analysis which do not require practical equipment and apparatus. <p>KwU: 45% of marks HISP: 55% of marks</p>	<p>Paper 1 (40 marks, 1h; 20%)</p> <ul style="list-style-type: none"> • MCQ from both sciences <p>Paper 2 / 3 / 4* (65 marks; 1h 15min; 32.5%)</p> <ul style="list-style-type: none"> • Structured and Free-response questions <p>*Paper 2: Science (Physics) *Paper 3: Science (Chemistry) *Paper 4: Science (Biology)</p> <p>Paper 5 (30 marks; 1h 30min; 15%)</p> <ul style="list-style-type: none"> • Contains one or two compulsory questions on each of the two Sciences. • In one or both questions, students would need to suggest a modification or extension, which does not need to be executed. <p>KwU: 50% of marks (with 20% recall) HISP: 50% of marks</p> <p><i>KwU: Knowledge with Understanding HISP: Handling Information and Solving Problems</i></p>

	Pure Science	Combined Science
Considerations to make before deciding to take the subject.	For pure science(s), ask yourself: <ul style="list-style-type: none"> • Do I have a very strong mastery of Lower Sec Science? • Am I very interested in Biology / Chemistry / Physics • Am I able to persevere through a more rigorous syllabus (more periods, more work)? • Am I able to apply higher order thinking skills well? • Am I able to handle a lot of data that are of unfamiliar context? 	
Progression opportunities	(JC) To do a H2 Science at A-Level, a minimum of a Combined Science with the corresponding Science subject at O-Level is required. (Poly) For courses (Type C and D) relating to Science, Engineering, Design and Information technology etc, either combined science or pure science can be used as one of the relevant subject.	

Subject	G3 - Pure Biology / Science Biology
What is the subject about?	Biology focuses on the study of living organisms and their interactions with the environment. It covers essential biological concepts such as cell structure and function, human physiology, genetics, evolution, and ecology. Students explore the diversity of life forms and how they adapt to different environments. The syllabus aims to develop students' scientific inquiry skills, encouraging them to engage in critical thinking and practical investigations to understand the biological world and its relevance to real-life applications.
Syllabus	<ul style="list-style-type: none"> • Cells and The Chemistry of Life • The Human Body – Maintaining Life • Living Together – Plants, Animals and Ecosystems • Continuity of Life <p>Pure and combined science cover the same broad content structure with pure science having a greater depth of coverage in most topics.</p>
Progression opportunities	Biology offers a foundation for students who are interested in industries pertaining to healthcare, life sciences, pharmaceuticals, biotechnology, environmental conservation, and research. It equips them with the necessary knowledge and skills to pursue careers in fields such as medicine, laboratory research, genetic engineering, public health, and environmental management. This strong biological background is also essential for students aiming to continue their studies in university or polytechnic programs related to biomedical sciences, bioengineering, and health sciences.

Subject	G3 - Pure Chemistry / Science Chemistry
What is the subject about?	<p>Chemistry focuses on fundamental principles of chemistry and their applications in everyday life. It covers topics such as atomic structure, the periodic table, chemical bonding, stoichiometry, acids and bases, energy changes in reactions, and organic chemistry. Students will also study the practical aspects of chemistry, including laboratory techniques and the importance of chemical safety. The course emphasizes the development of scientific inquiry skills, preparing students for careers in industries such as pharmaceuticals, environmental science, and chemical engineering, as well as further studies in the field of chemistry.</p>
Syllabus	<ul style="list-style-type: none"> • Matter – Structures and Properties • Chemical Reactions • Chemistry in a Sustainable World <p>Pure and combined science cover the same broad content structure with pure science having a greater depth of coverage in most topics.</p>
Progression opportunities	<p>Chemistry offers a foundation for students who are interested in industries pertaining to pharmaceuticals, environmental science, materials science, energy, and manufacturing. It provides essential knowledge and skills for careers in chemical engineering, drug development, environmental conservation, and product innovation. This strong chemistry background is also crucial for students pursuing higher education in fields such as biochemistry, industrial chemistry, chemical engineering, and environmental science at universities or polytechnics.</p> <p>Most undergraduate courses require Chemistry as a prerequisite. For example, to pursue dentistry or medicine at NUS, Chemistry, along with either Biology or Physics, is a required subject.</p>

Subject	G3 - Pure Physics / Science Physics
What is the subject about?	<p>Physics covers fundamental principles of physics and their applications in real-world contexts. It includes topics such as mechanics, thermal physics, waves, electricity and magnetism, light, and atomic physics. Students will develop an understanding of the physical world, learn how to solve practical problems, and understand the importance of physics in technology and everyday life. The course emphasizes scientific inquiry, critical thinking, and practical skills, providing a strong foundation for students pursuing further education or careers in engineering, technology, and physical sciences.</p>
Syllabus	<ul style="list-style-type: none"> • Measurement • Newtonian mechanics • Thermal physics • Waves • Electricity & magnetism • Radioactivity <p>Pure and combined science cover the same broad content structure with pure science having a greater depth of coverage in most topics.</p>
Progression opportunities	<p>Physics offers a foundation for students who are interested in industries pertaining to engineering, technology, telecommunications, aerospace, energy, and electronics. It provides essential knowledge and skills for careers in fields such as mechanical engineering, electrical engineering, renewable energy, robotics, and computer science. This solid foundation in physics is also important for students who wish to pursue higher education in fields such as applied physics, engineering, data science, and nanotechnology at universities or polytechnics.</p>

Subject 6 and/or 7 – Electives

Subject	G3 - Additional Mathematics			
What is the subject about?	Conceptual understanding, skill proficiency, reasoning, communication and connections, thinking skills and heuristics, and applications and modelling to the 3 strands stated below.			
Syllabus	3 main strands – <ul style="list-style-type: none"> • Algebra • Geometry & Trigonometry • Calculus 			
Assessment (How will the subject be tested?)	<ul style="list-style-type: none"> ▪ Paper 1: 2h 15 mins, 90 marks, ~12 Qs ▪ Paper 2: 2 h 15 mins, 90 marks, ~10 Qs <p><i>Questions are lesser but more challenging which require a lot of working to be done. Below is just one example ONLY!</i></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; padding: 5px;"> Write as a single fraction in its simplest form $\frac{3x}{(2x-1)^2} - \frac{2}{2x-1}$ <p>Solution</p> $\frac{3x}{(2x-1)^2} - \frac{2}{2x-1}$ $= \frac{3x}{(2x-1)^2} - \frac{2(2x-1)}{(2x-1)^2}$ $= \frac{3x - 4x + 2}{(2x-1)^2}$ $= \frac{2-x}{(2x-1)^2}$ </td> <td style="width: 50%; padding: 5px;"> Express $\frac{15-6x}{(2x-1)(x^2+2)}$ in partial fractions. <p>Solution</p> Let $\frac{15-6x}{(2x-1)(x^2+2)} = \frac{A}{2x-1} + \frac{Bx+C}{x^2+2}$ $15-6x = A(x^2+2) + (Bx+C)(2x-1)$ Let $x = \frac{1}{2}$: $15-6(\frac{1}{2}) = A((\frac{1}{2})^2+2) + 0$ $A = \frac{16}{3}$ Let $x = 0$: $15 = A(2) + C(-1)$ $C = -\frac{13}{3}$ Equating coefficients of x^2: $0 = A + 2B$ $B = -\frac{8}{3}$ Thus $\frac{15-6x}{(2x-1)(x^2+2)} = \frac{\frac{16}{3}}{2x-1} + \frac{-\frac{8}{3}x - \frac{13}{3}}{x^2+2}$ $= \frac{16}{3(2x-1)} - \frac{8x+13}{3(x^2+2)}$ </td> </tr> </table>		Write as a single fraction in its simplest form $\frac{3x}{(2x-1)^2} - \frac{2}{2x-1}$ <p>Solution</p> $\frac{3x}{(2x-1)^2} - \frac{2}{2x-1}$ $= \frac{3x}{(2x-1)^2} - \frac{2(2x-1)}{(2x-1)^2}$ $= \frac{3x - 4x + 2}{(2x-1)^2}$ $= \frac{2-x}{(2x-1)^2}$	Express $\frac{15-6x}{(2x-1)(x^2+2)}$ in partial fractions. <p>Solution</p> Let $\frac{15-6x}{(2x-1)(x^2+2)} = \frac{A}{2x-1} + \frac{Bx+C}{x^2+2}$ $15-6x = A(x^2+2) + (Bx+C)(2x-1)$ Let $x = \frac{1}{2}$: $15-6(\frac{1}{2}) = A((\frac{1}{2})^2+2) + 0$ $A = \frac{16}{3}$ Let $x = 0$: $15 = A(2) + C(-1)$ $C = -\frac{13}{3}$ Equating coefficients of x^2 : $0 = A + 2B$ $B = -\frac{8}{3}$ Thus $\frac{15-6x}{(2x-1)(x^2+2)} = \frac{\frac{16}{3}}{2x-1} + \frac{-\frac{8}{3}x - \frac{13}{3}}{x^2+2}$ $= \frac{16}{3(2x-1)} - \frac{8x+13}{3(x^2+2)}$
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Considerations to make before deciding to take the subject.	Ask yourself if... <ul style="list-style-type: none"> • Willing to put in time and effort to do Add Maths? • Are coping well with Maths so far? • Have the aptitude (ability) and interest in learning more abstract and challenging concepts? 			
Progression opportunities	Junior College (JC): If you want to take H2 Mathematics, Add Maths is highly recommended (and in some cases, required) because H2 Math builds on Add Maths concepts. Polytechnic (Poly): Some engineering, IT, and science-related courses may require or strongly prefer Add Maths. Business, humanities, and design courses usually do not require Add Maths.			

Subject	G3 - Principles of Accounts
What is the subject about?	<p>Students will learn accounting knowledge, skills and values. The subject aims to develop in students the knowledge to prepare, communicate and use accounting and non-accounting information to make decisions.</p> <p>Throughout the subject, students will engage in a combination of calculations, preparation of various financial statements, and application of key concepts to real-world scenarios.</p>
Syllabus	<p>Key topics will include</p> <p><u>Accounting and its role in stakeholders' decision-making process</u></p> <ul style="list-style-type: none"> - Roles of accounting and accountants - Stakeholders and their decision-making needs. <p><u>Analysis of financial statements for decision-making</u></p> <ul style="list-style-type: none"> - Profitability - Liquidity - Efficiency <p><u>Businesses</u></p> <ul style="list-style-type: none"> - Types of businesses - Forms of business ownership <p><u>Measurement and presentation of business activities</u></p> <ul style="list-style-type: none"> - Elements of financial statements - Accounting equation - Statement of financial performance - Statement of financial position - Revenue and other income - Cost of sales and other expenses <p><u>Assets</u></p> <ul style="list-style-type: none"> - Cash in hand and cash at bank - Inventories - Trade receivables - Non-current assets, Depreciation, Sale of Non-current assets <p><u>Liabilities</u></p> <ul style="list-style-type: none"> - Trade payables - Long-term borrowings <p><u>Equities</u></p> <ul style="list-style-type: none"> - Capital and share capital - Drawings - Transfer of profit / loss for the year and retained earnings <p><u>Accounting Assumptions and Principles</u></p> <ul style="list-style-type: none"> - Accounting theories <p><u>Accounting information system and accounting cycle</u></p> <ul style="list-style-type: none"> - Understanding accounting information system and accounting cycle - Understanding double-entry recording system

Official (Open) / Non Sensitive

	<ul style="list-style-type: none"> - Internal controls
<p>Assessment (How will the subject be tested?)</p>	<p>Paper 1 : 1 hour (40 marks) Students will be required to answer 3 to 4 compulsory structured questions.</p> <p>Paper 2 : 2 hours (60 marks) Students will be required to answer 4 compulsory structured questions.</p> <ul style="list-style-type: none"> - One question requires the preparation of financial statements for a business for one financial year. - A scenario-based question (7 marks) will be part of one of the 3 remaining questions. (20 marks)
<p>Considerations to make before deciding to take the subject.</p>	<p>Ask yourself</p> <ul style="list-style-type: none"> • Am I meticulous and detail-oriented, understanding that small mistakes can have significant cumulative consequences in your work? • Is my written work consistently neat, well-organized, and structured? • Can I communicate my ideas and decisions clearly by comparing and analyzing evidence? • Am I comfortable working with numbers and remembering the formats of financial statements? • Can I express my ideas clearly and effectively in written reports?
<p>Progression opportunities</p>	<p>The subject provides a good foundation for students keen to pursue an accounting or a business-related course.</p>

Subject	G3 - Core History
What is the subject about?	<p>History is about an appreciation for past human experiences, critical thinking, and connections between past and present.</p> <p>It equips students with skills to navigate a complex world by analyzing historical forces, events, and perspectives.</p> <p>The curriculum fosters inquiry, source evaluation, and communication of historical knowledge. Students develop critical thinking, discernment, and empathy, enabling them to engage responsibly as global citizens. They learn to assess historical significance, understand change, and respect diverse viewpoints.</p>
Syllabus	<p><u>Paper 1: Extension of European control in Southeast Asia and challenges to European dominance, 1870s–1942</u></p> <ul style="list-style-type: none"> ▪ <i>Extension of European control in SEA: British Malaya and Dutch Indonesia or French Vietnam.</i> ▪ <i>After World War I</i> ▪ <i>Rise of Authoritarian Regime – Case study of Nazi Germany and Militarist Japan</i> ▪ <i>War in Europe and the Asia Pacific</i> <p><u>Paper 2: Developments in the post-World War II world: The Cold War and decolonisation in Southeast Asia, 1940s–1991</u></p> <ul style="list-style-type: none"> ▪ <i>Reasons for the end of war in Europe and Asia-Pacific</i> ▪ <i>The Cold War – Case study of the Vietnam War and the Korean War</i> ▪ <i>End of the Cold War</i> ▪ <i>Decolonisation in Southeast Asia - British Malaya and Dutch Indonesia or French Vietnam.</i>
Assessment (How will the subject be tested?)	<p><i>The examination consists of two papers – Paper 1 and Paper 2, taken at separate sittings. The duration of each paper is 1 hour 50 minutes. Each paper is assessed by a source-based case study and essay questions.</i></p>
Considerations to make before deciding to take the subject.	<p>Ask yourself:</p> <ul style="list-style-type: none"> • Am I interested in historical events and how they shaped the world today? • Am I willing to read different sources and think critically about them? • Am I interested in exploring different perspectives on historical events? • Do I want to improve my ability to think critically and argue logically? • Do I want to understand why the world is the way it is today?
Progression opportunities	<p>The subject provides strong foundations for both JC (H1/H2 History) and polytechnic courses (Arts Business Management, Common Arts, Design and Media Programme).</p> <p>The skills learnt in history are valuable for careers in law and government, journalism and media, research and heritage management, education and others.</p>

Subject	G3 - Design & Technology
What is the subject about?	<ul style="list-style-type: none"> • Engage students in designing and prototyping ideas • Emphasizes on understanding everyday activities and creating possibilities to make life better. • Through the design process, students cultivate creative, critical and reflective thinking to make sense of their learning and to develop related dispositions and skills using graphical means and technology
Syllabus	<p>The content to be covered are organised into two sections: (i) Design and (ii) Technology. The syllabus aims to allow students to:</p> <ul style="list-style-type: none"> • develop design-related dispositions • acquire design techniques and strategies • consolidate a sound working knowledge of technology (materials, workshop processes, structures, mechanisms and electronics)
Assessment (How will the subject be tested?)	<p>Paper 1 (40%, 2h) Written Paper (80 marks) Q1 (26 marks): Design Q2-4 (54 marks): Application</p> <p>Paper 2 (60%, 22 weeks)</p> <p>Coursework Involves design journal (real-time document that reflects the candidate's attempt at managing his or her personal design process which includes mock-up(s) and a prototype) and presentation boards.</p>
Considerations to make before deciding to take the subject.	<p>Ask yourself...</p> <ul style="list-style-type: none"> • Am I a creative person? Do I like designing? • Can I sketch and draw 3-Dimensional Objects? • Do I like process based and skill-based curriculum? <ul style="list-style-type: none"> • Process skills in gathering relevant information, analyzing it and applying it effective in design solution • Practical skills in drawing and designing? • Practical skills in testing and making of design? • Am I an effective person in learning and usage of ICT tools/skills for coursework applications. • Do I like project work? <ul style="list-style-type: none"> • Project management. An organized person able to meet timeline?
Progression opportunities	<p>Benefits for progressions to Polytechnics: Coursework exposure equips students to handle the modular structure of ITE and Polytechnic courses, resembling coursework in each module.</p> <p>Related Polytechnic Courses:</p> <ul style="list-style-type: none"> • Engineering, IT, Built Environment & Applied & Health Science • Humanities, Media & Design

Subject	G3 - Nutrition and Food Science
What is the subject about?	<ul style="list-style-type: none"> • Lead a healthier lifestyle proactively through proper diet and nutrition. • Advocate sustainable food consumption by planning and making appropriate food choices. • Apply principles of culinary science creatively in food preparation and cooking.
Syllabus	<ul style="list-style-type: none"> • Nutrition and Health – Nutrients / Diet and Health • Food Literacy and Consumer Literacy - Food Management / Smart Consumer • Food Science - Food Safety / The Science in Food Preparation / Reactions in Food During Preparation / Cooking Sensory Evaluation of Food
Assessment (How will the subject be tested?)	<p>Paper 1 (40%, 2h) - Written Paper (100m) Section A: 15 marks (multiple choice questions) Section B: 55 marks (short-answer-type questions and data-response-type questions) Section C: 30 marks (open-ended questions)</p> <p>Paper 2 (60%, max. 28hrs) - Coursework (80m) Involves research, decision making, investigation, planning, execution and evaluation (to present in coursework folio, max. 25 pages)</p>
Considerations to make before deciding to take the subject.	<p>Ask yourself...</p> <ul style="list-style-type: none"> • Do I have a passion for culinary skills & nutrition & food science? • Do I like process based and skills-based curriculum? • Process skills in research development, analysis and decision making to develop ideas towards a solution for the food task? • Planning and execution of designed solution of food task using appropriate cooking techniques and methods? • Am I an effective person in the learning and usage of Microsoft Word & to type content within time limit? e.g. Coursework report writing for express O level is approximately 16 pages. • Am I an analytical person and able to use data effectively to design the food task? • Am I a organized person able to meet timeline? • Am I ready to cook 3-4 dishes within 2 hrs, including wash up & plating?
Progression opportunities	<p>Benefits for progressions to ITE & Polytechnics: Coursework exposure equips students to handle the modular structure of ITE and Polytechnic courses, resembling coursework in each module.</p> <p>Related Polytechnic Courses:</p> <ul style="list-style-type: none"> • Food Science and Technology, Food Science and Nutrition, Food, Nutrition and Culinary Science, Applied & Health Science

Subject	G3 - Art (Click here or scan QR to view a sharing on the subject)				
What is the subject about? 	<ul style="list-style-type: none"> • Art expands imagination, enhances creativity and develops adaptability • Art builds students' capacity to critically discern and process visual information, and communicate effectively • Art fosters students' sense of identity, culture, and place in society 				
Syllabus	<p>The Syllabus covers 4 Learning Content and 3 Core Learning Experience</p> <table border="1" data-bbox="464 544 1385 757"> <thead> <tr> <th data-bbox="464 544 922 584">4 Learning Content</th> <th data-bbox="922 544 1385 584">3 Core Learning Experiences</th> </tr> </thead> <tbody> <tr> <td data-bbox="464 584 922 757"> <ul style="list-style-type: none"> - Art Forms and Media - Visual Qualities & Visual Strategies - Artistic Processes - Context </td> <td data-bbox="922 584 1385 757"> <ul style="list-style-type: none"> - Building Portfolios - Art journalling - Art Conversations </td> </tr> </tbody> </table>	4 Learning Content	3 Core Learning Experiences	<ul style="list-style-type: none"> - Art Forms and Media - Visual Qualities & Visual Strategies - Artistic Processes - Context 	<ul style="list-style-type: none"> - Building Portfolios - Art journalling - Art Conversations
4 Learning Content	3 Core Learning Experiences				
<ul style="list-style-type: none"> - Art Forms and Media - Visual Qualities & Visual Strategies - Artistic Processes - Context 	<ul style="list-style-type: none"> - Building Portfolios - Art journalling - Art Conversations 				
Assessment (How will the subject be tested?)	<p><u>Paper 1 Written Paper: Visual Response 2hr 15 mins (50%)</u></p> <ul style="list-style-type: none"> • Section A: Visual Analysis (10marks) - One question with two sub-parts for visual analysis and discussion. The question is accompanied by one unseen visual stimulus. • Section B: Exploratory Sketching - One practical task in response to a visual stimulus. Candidates will provide sketches with annotations, culminating in a sketch that shows their concept for the visual response. <p><u>Paper 2 Portfolio (30hrs within 12 weeks) (50%)</u></p> <ul style="list-style-type: none"> • Part A: Selection of Visual Materials Maximum of 15 screens illustrating artistic exploration and processes which include at least 3 art forms and media. • Part B : Commentary An articulation of personal artistic growth based on 3 works, in not more than 800 words, and under 10 A4-sized pages. 				
Considerations to make before deciding to take the subject.	<p>Ask yourself if...</p> <ul style="list-style-type: none"> • you enjoy art and wish to learn how to use it to communicate your ideas visually. • you are willing to invest time of at least 3 hours a week outside of lesson time to create and journal on a weekly basis? • you are willing to have an open mind to experiment, persevere and explore various mediums / media tools? • you have the capacity and discipline to start building a portfolio over 2 years. 				
Progression opportunities	<p>The Portfolio created over 2 years will be an invaluable asset when students apply for polytechnic Early Admission Exercise (EAE).</p> <p>G3 Art will help students to gain foundational knowledge in the Visual Arts which will be asset when they enter visual and media art related courses in polytechnics and art institutes like NAFA / Lassalle.</p> <p>Related Polytechnic courses:</p> <ul style="list-style-type: none"> - Diploma in Visual Communication - Diploma in Media Production and Design - Diploma in Interior Design 				

G2 Subjects

Subject 4 - Combined Humanities

Subject	G2 – Combined Humanities (Social Studies, Geography)
What is the subject about?	<p>Geography emphasizes the integrative study of physical and human environments to enable students to gain a better understanding of their own space and other parts of the world. It also focuses on the interconnectedness among groups of people, and between people and their environment.</p> <p>The geography student can expect to acquire a wide range of knowledge and skills to understand and explain physical and human phenomena, and other contemporary environmental and social issues that occur in different places and cultures</p>
Syllabus	<p>Cluster 1: Geography in Everyday Life <i>Topic 1.1 – Thinking Geographically (4 sub-topics)</i> <i>Topic 1.2 – Sustainable Development (4 sub-topics)</i> <i>Topic 1.3 – Geographical Methods (4 sub-topics)</i></p> <p>Cluster 4 – Tectonics <i>Topic 4.1 – Plate Tectonics (4 sub-topics)</i> <i>Topic 4.2 – Earthquakes and Volcanoes (4 sub-topics)</i> <i>Topic 4.3 – Disaster Risk Management (4 sub-topics)</i></p>
Assessment (How will the subject be tested?)	<p>Social Studies (50%) which is compulsory and an Elective Component (Geography) (50%).</p> <ul style="list-style-type: none"> • 1hr 45min Pen and Paper exam on the syllabus above • Students will be required to answer one 6-mark essay question, which will be assessed using level descriptors. This question will test their ability to evaluate strategies/evidence and reach well-reasoned conclusions.
Considerations to make before deciding to take the subject.	<p>Ask yourself</p> <ul style="list-style-type: none"> • Do I enjoy learning about environmental systems and human societies? • Am I comfortable analyzing data, reading maps, and interpreting trends? • Can I connect different concepts, think critically, and apply my learning on sustainable resource management in a real-world context?
Progression opportunities	<p>The subject provides strong foundations for both JC (H1/H2 Geography) and polytechnic courses (Environmental Management, Urban Planning, Tourism).</p> <p>These skills are valuable for careers in environmental science, urban planning, business, tourism, and public policy.</p>

Subject	G2 – Combined Humanities (Social Studies, History)
What is the subject about?	<p>History is about an appreciation for past human experiences, critical thinking, and connections between past and present. It equips students with skills to navigate a complex world by analyzing historical forces, events, and perspectives.</p> <p>The curriculum fosters inquiry, source evaluation, and communication of historical knowledge. Students develop critical thinking, discernment, and empathy, enabling them to engage responsibly as global citizens. They learn to assess historical significance, understand change, and respect diverse viewpoints.</p>
Syllabus	<p><u>Unit 1:</u></p> <ul style="list-style-type: none"> ▪ <i>After World War I</i> ▪ <i>Rise of Authoritarian Regime – Case study of Nazi Germany</i> ▪ <i>War in Europe and the Asia Pacific</i> <p><u>Unit 2:</u></p> <ul style="list-style-type: none"> ▪ <i>The Cold War - Case study of the Vietnam War</i> ▪ <i>End of the Cold War</i>
Assessment (How will the subject be tested?)	<p>Social Studies (50%) which is compulsory and an Elective Component (History) (50%).</p> <ul style="list-style-type: none"> • <i>1 hr 50 min (pen and paper)</i> • <i>Format of Paper:</i> <ul style="list-style-type: none"> ○ <i>Section A (Source-based Case Study)(30m)</i> ○ <i>Section B (Essay Questions)(20m) – Students are required to answer 2 out of 3 questions.</i>
Considerations to make before deciding to take the subject.	<p>Ask yourself:</p> <ul style="list-style-type: none"> • Am I interested in historical events and how they shaped the world today? • Am I willing to read different sources and think critically about them? • Am I interested in exploring different perspectives on historical events? • Do I want to improve my ability to think critically and argue logically? • Do I want to understand why the world is the way it is today?
Progression opportunities	<p>The subject provides strong foundations for both JC (H1/H2 History) and polytechnic courses (Arts Business Management, Common Arts, Design and Media Programme).</p> <p>The skills learnt in history are valuable for careers in law and government, journalism and media, research and heritage management, education and others.</p>

Subject 5 - Combined Science

Subject	G2 – Combined Science (Chemistry, Biology)
What is the subject about?	Biology focuses on understanding living organisms and their interactions with the environment. It covers topics such as cell structure and function, human physiology, reproduction, genetics, and ecology. Students will explore the diversity of life forms, their adaptations, and the principles governing life processes. The syllabus also emphasizes practical work, encouraging students to develop scientific inquiry skills through experiments and investigations. This foundation prepares students for careers in healthcare, biotechnology, environmental science, and further studies in biological sciences.
Syllabus	<ul style="list-style-type: none"> • Cells and the Chemistry of Life • The Human Body – Maintaining Life • Living Together – Plants and Animals
Assessment (How will the subject be tested?)	<p>Chemistry (50%) which is compulsory and an Elective Component (Biology) (50%).</p> <p>Paper 5 & 6 comprises of: (50 marks, 1h 15 min)</p> <ul style="list-style-type: none"> • 20 marks of MCQ Questions (20 questions) • 22 marks of compulsory structured questions • 8 marks of structured question where candidate must answer only one of the two questions.
Considerations to make before deciding to take the subject.	<p>Ask yourself if:</p> <ul style="list-style-type: none"> • Am I interested in how living organisms work? • Do I find topics like human health and the environment interesting? • Am I good at memorizing facts and processes? • What area of industry do I want to work in the future?
Progression opportunities	Biology offers a foundation for students who are interested in industries pertaining to healthcare, life sciences, pharmaceuticals, biotechnology, environmental conservation, and research. It equips them with the necessary knowledge and skills to pursue careers in fields such as medicine, laboratory research, genetic engineering, public health, and environmental management. This strong biological background is also essential for students aiming to continue their studies in university or polytechnic programs related to biomedical sciences, bioengineering, and health sciences.

Subject	G2 – Combined Science (Chemistry, Physics)
What is the subject about?	Biology introduces students to fundamental principles of physics and their practical applications. Key topics include mechanics, heat, waves, electricity and magnetism, light, and energy. Students will explore how physical laws govern the behavior of the natural world and learn to apply these principles in real-life situations. The syllabus emphasizes both theoretical understanding and experimental skills, with a focus on critical thinking, problem-solving, and the scientific method. It provides a solid foundation for those interested in pursuing further studies or careers in fields such as engineering, technology, and environmental science.
Syllabus	<ul style="list-style-type: none"> • Measurement • Newtonian Mechanics • Thermal Physics • Waves • Electricity and Magnetism • Radioactivity
Assessment (How will the subject be tested?)	<p>Chemistry (50%) which is compulsory and an Elective Component (Physics) (50%).</p> <p>Paper 1 & 2 comprises of: (50 marks, 1h 15 min)</p> <ul style="list-style-type: none"> • 20 marks of MCQ Questions (20 questions) • 22 marks of compulsory structured questions • 8 marks of structured question where candidate must answer only one of the two questions.
Considerations to make before deciding to take the subject.	<p>Ask yourself if:</p> <ul style="list-style-type: none"> • Do I enjoy solving problems and understanding concepts like motion and energy? • Am I comfortable with math and calculations? • Do I find topics like forces, electricity, and light interesting? • Am I curious about how things like machines and technology function? • What area of industry do I want to work in the future?
Progression opportunities	Physics offers a foundation for students who are interested in industries pertaining to engineering, technology, telecommunications, aerospace, energy, and electronics. It provides essential knowledge and skills for careers in fields such as mechanical engineering, electrical engineering, renewable energy, robotics, and computer science. This solid foundation in physics is also important for students who wish to pursue higher education in fields such as applied physics, engineering, data science, and nanotechnology at universities or polytechnics.

Subject 6 - Electives

Subject	G2 - Principles of Accounts
What is the subject about?	<p>It aims to develop in students the knowledge to prepare, communicate and use accounting and non-accounting information to make decisions.</p> <p>Throughout the subject, students will engage in a combination of calculations, preparation of various financial statements, and application of key concepts to real-world scenarios.</p>
Syllabus	<p>Key topics will include</p> <p><u>Accounting and its role in stakeholders' decision-making process</u></p> <ul style="list-style-type: none"> - Roles of accounting and accountants - Stakeholders and their decision-making needs <p><u>Businesses</u></p> <ul style="list-style-type: none"> - Types of businesses <p><u>Measurement and presentation of business activities</u></p> <ul style="list-style-type: none"> - Elements of financial statements - Accounting equation - Statement of financial performance - Statement of financial position - Revenue and other income - Cost of sales and other expenses <p><u>Assets</u></p> <ul style="list-style-type: none"> - Cash in hand and cash at bank - Inventories - Trade receivables - Non-current assets and its Depreciation <p><u>Liabilities</u></p> <ul style="list-style-type: none"> - Trade payables - Long-term borrowings <p><u>Equities</u></p> <ul style="list-style-type: none"> - Capital - Drawings - Transfer of profit / loss for the year <p><u>Accounting Assumptions and Principles</u></p> <ul style="list-style-type: none"> - Accounting theories <p><u>Accounting information system and accounting cycle</u></p> <ul style="list-style-type: none"> - Understanding accounting information system and accounting cycle - Understanding double-entry recording system - Internal controls
Assessment (How will the subject be tested?)	<p>Paper 1 : 1 hr (40 marks) Students will be required to answer 3 to 4 compulsory structured questions.</p> <p>Paper 2 : 2 hrs (60 marks) Students will be required to answer 4 compulsory structured questions.</p>

	<p>One question requires the preparation of financial statements for a business for one financial year.</p> <p>A scenario-based question (5 marks) will be part of one of the 3 remaining questions. (20 marks)</p>
<p>Considerations to make before deciding to take the subject.</p>	<p>Ask yourself</p> <ul style="list-style-type: none"> • Am I meticulous and detail-oriented, understanding that small mistakes can have significant cumulative consequences in your work? • Is my written work consistently neat, well-organized, and structured? • Can I communicate my ideas and decisions clearly by comparing and analyzing evidence? • Am I comfortable working with numbers and remembering the formats of financial statements? • Can I express my ideas clearly and effectively in written reports?
<p>Progression opportunities</p>	<p>The subject provides a good foundation for students keen to pursue an accounting or a business-related course.</p>

Subject	G2 - Design & Technology
What is the subject about?	<ul style="list-style-type: none"> Engage students in designing and prototyping ideas Emphasizes on understanding everyday activities and creating possibilities to make life better. Through the design process, students cultivate creative, critical and reflective thinking to make sense of their learning and to develop related dispositions and skills using graphical means and technology
Syllabus	<p>The content to be covered are organised into two sections: (i) Design and (ii) Technology. The syllabus aims to allow students to:</p> <ul style="list-style-type: none"> develop design-related dispositions acquire design techniques and strategies consolidate a sound working knowledge of technology (materials, workshop processes, mechanisms and electronics)
Assessment (How will the subject be tested?)	<p>Paper 1 (40%, 1h) Written Paper (60 marks) Q1 (24m): Design Q2-4 (36m): Application</p> <p>Paper 2 (60%, 20 weeks) Coursework Involves design journal (real-time document that reflects the candidate's attempt at managing his or her personal design process which includes mock-up(s) and a prototype) and presentation boards</p>
Considerations to make before deciding to take the subject.	<p>Ask yourself...</p> <ul style="list-style-type: none"> Am I a creative person? Do I like designing? Can I sketch and draw 3-Dimensional Objects? Do I like process based and skills based curriculum? Process skills in gathering relevant information, analyzing it and applying it effective in design solution Practical skills in drawing and designing? Practical skills in testing and making of design? Am I an effective person in learning and usage of ICT tools/skills for coursework applications. Do I like project work? Project management. An organized person able to meet timeline?
Progression opportunities	<p>Benefits for progressions to ITE & Polytechnics: Coursework exposure equips students to handle the modular structure of ITE and Polytechnic courses, resembling coursework in each module.</p> <p>Related Polytechnic Courses:</p> <ul style="list-style-type: none"> Engineering, IT, Built Environment & Applied & Health Science Humanities, Media & Design

Subject	G2 - Art				
What is the subject about?	<ul style="list-style-type: none"> • Art expands imagination, enhances creativity and develops adaptability • Art builds students' capacity to critically discern and process visual information, and communicate effectively • Art fosters students' sense of identity, culture, and place in society 				
Syllabus	<p><i>The Syllabus covers 4 Learning Content and 3 Core Learning Experience</i></p> <table border="1" data-bbox="464 528 1383 741"> <thead> <tr> <th data-bbox="464 528 924 568">4 Learning Content</th> <th data-bbox="924 528 1383 568">3 Core Learning Experiences</th> </tr> </thead> <tbody> <tr> <td data-bbox="464 568 924 741"> <ul style="list-style-type: none"> - Art Forms and Media - Visual Qualities & Visual Strategies - Artistic Processes - Context </td> <td data-bbox="924 568 1383 741"> <ul style="list-style-type: none"> - Building Portfolios - Art journaling - Art Conversations </td> </tr> </tbody> </table>	4 Learning Content	3 Core Learning Experiences	<ul style="list-style-type: none"> - Art Forms and Media - Visual Qualities & Visual Strategies - Artistic Processes - Context 	<ul style="list-style-type: none"> - Building Portfolios - Art journaling - Art Conversations
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Assessment (How will the subject be tested?)	<p><u>Paper 1 Written Paper: Visual Response 2hr 15 mins (50%)</u></p> <ul style="list-style-type: none"> • Section A: Visual Analysis (10 marks) - One question with two sub-parts for visual analysis and discussion. The question is accompanied by one unseen visual stimulus. • Section B: Exploratory Sketching - One practical task in response to a visual stimulus. Candidates will provide sketches with annotations, culminating in a sketch that shows their concept for the visual response. <p><u>Paper 2 Portfolio (30hrs within 12 weeks) (50%)</u></p> <ul style="list-style-type: none"> • Part A: Selection of Visual Materials Maximum of 10 screens illustrating artistic exploration and processes which include at least 2 art forms and media. • Part B : Commentary An articulation of personal artistic growth based on 2 works, in not more than 500 words, and under 8 A4-sized pages. 				
Considerations to make before deciding to take the subject.	<p>Ask yourself if...</p> <ul style="list-style-type: none"> • you enjoy art and wish to learn how to use it to communicate your ideas visually. • you are willing to invest time of at least 3 hours a week outside of lesson time to create and journal on a weekly basis? • you are willing to have an open mind to experiment, persevere and explore various mediums / media tools? • you have the capacity and discipline to start building a portfolio over 2 years. 				
Progression opportunities	<p>The Portfolio created over 2 years will be an invaluable asset when students apply for polytechnic Early Admission Exercise (EAE).</p> <p>G2 Art will help students to gain foundational knowledge in the Visual Arts which will be asset when they enter visual and media art related courses in polytechnics and art institutes like NAFA / Lassalle.</p> <p>Related Polytechnic courses:</p> <ul style="list-style-type: none"> - <i>Diploma in Visual Communication</i> - <i>Diploma in Media Production and Design</i> - <i>Diploma in Interior Design</i> 				

Subject	G2 - Computing (Click here or scan QR to view a sharing on the subject)
What is the subject about? 	<p>Computing provides upstream support for embracing digital transformation to survive and thrive by providing students with opportunities to acquire useful digital competencies and explore the field of Computing.</p> <p>The curriculum is designed to develop students' computational thinking skills – such as abstraction, decomposition, generalization, and algorithmic thinking – and to promote responsible and ethical use of technology.</p>
Syllabus	<p>Computing Fundamentals – Understanding a computer system</p> <p>Networking – Learning about network concepts</p> <p>Impact of Computing – Exploring emerging technologies, cybersecurity risks and responsible use of computers.</p> <p>Data and Analysis – Developing skills in spreadsheet data organization, processing and analysis using charts.</p> <p>Programming – Engage in visual programming, algorithm development, and game creation.</p> <p>Document Processing and Media Software – Word document processing, designing graphics and producing multimedia presentations and videos.</p>
Assessment (How will the subject be tested?)	<p>Students will sit for 2 papers.</p> <p>Paper 1 – Timed written paper comprising of multiple-choice and short-structured questions. (e-Examination for National Examinations)</p> <p>Paper 2 – Practical based assessment comprising of hands-on tasks used to assess students' skills learnt in different modules.</p>
Considerations to make before deciding to take the subject.	<p>Ask yourself if...</p> <ul style="list-style-type: none"> • you have interest in technology and digital tools • you enjoy Math and/or Science • you enjoy solving puzzles, logical problems, or coding games like Scratch. • you have a willingness to learn independently • you are thinking about future studies or jobs in IT, engineering, media or science.
Progression opportunities	<p>Students with G2 computing will be well-prepared for a variety of Diploma courses at the polytechnics such as:</p> <ol style="list-style-type: none"> 1) Information Technology / Computer Engineering 2) Game Development / Interactive Media / Animation 3) Data Science / Business Analytics 4) Cybersecurity <p>Students can also showcase coding projects, digital media or microcontroller creations in Polytechnic Early Admissions Exercise (EAE), Scholarships and internships.</p> <p>Students will also develop critical 21st-Century Skills such as</p> <ol style="list-style-type: none"> 1) Problem-Solving 2) Creativity 3) Digital Literacy 4) Responsible technology use

G1 Subjects

Subject 5 / 6 – Electives

Subject	G1 - Elements of Business Skills (EBS)
What is the subject about?	<ul style="list-style-type: none"> • An introduction to business concepts by understanding business activities, focusing on basic marketing and customer relations, in Singapore’s context. • Students will have opportunities to acquire foundational business knowledge and develop transferable employability skills in the service industry, namely the Travel and Tourism, Hospitality and Retail industries. • Subject will provide students with a basic understanding of business concepts and an awareness of the industry for further studies in institutes of higher learning and careers.
Syllabus	<ul style="list-style-type: none"> • Businesses and business activities in the 3 service industries namely the Travel and Tourism, Hospitality and Retail industries. • Basic understanding, knowledge and skills in the following areas <ul style="list-style-type: none"> ○ Businesses in the service industry of Singapore. ○ Marketing (4Ps) ○ Customer service ○ Communications
Assessment (How will the subject be tested?)	<ul style="list-style-type: none"> • 1hr 30min Pen and Paper test on theoretical understanding of basic business, marketing and customer service concepts • Undertake 20hrs of coursework during curriculum time to do project work on selected business.
Considerations to make before deciding to take the subject.	<p>Ask yourself</p> <ul style="list-style-type: none"> • Am I interested in learning how businesses operate in service industries? • Do I have the English competency to conduct research and write reports in the coursework component of the subject in Sec 4?
Progression opportunities	<p>Provides foundational knowledge in ITE subjects like</p> <ul style="list-style-type: none"> • Hospitality • Tourism Studies • Retail and business studies.

Subject	G1 - Science
What is the subject about?	Science focuses on helping students understand the natural world through everyday contexts, such as "Machines Around Us," "Food Matters," and "Our Body and Health." The course emphasizes hands-on learning and practical applications, allowing students to explore scientific phenomena and their impact on society. Key aims include fostering critical thinking, problem-solving, and communication skills while also encouraging safe and ethical practices in scientific inquiry. The syllabus integrates knowledge with real-world situations, preparing students for both further studies and responsible citizenship.
Syllabus	<ul style="list-style-type: none"> • Machines around us (Energy, electricity, wave, effects of force) • Food matters (Sources of food, food chemistry, food safety) • Our body and health (Staying healthy, digestion, breathing and blood circulation)
Assessment (How will the subject be tested?)	<p>Paper 1 (e-Examination)</p> <ul style="list-style-type: none"> • 1 h 15 min; 50 marks; 50% • Multiple choice, selected response, short-answer and structured <p>Paper 2</p> <ul style="list-style-type: none"> • 1 h; 50 marks; 50% • Short-answer and structured
Considerations to make before deciding to take the subject.	<p>Ask yourself</p> <ul style="list-style-type: none"> • Do you love science? • Do you love doing experiment in the laboratory? • Would you want to learn how things work? • Would you want develop a strong foundation for science-related ITE courses e.g. engineering, nursing?
Progression opportunities	Science can be used to replace Mathematics as the relevant subjects for some ITE Courses such as engineering, electronics and infor-communications technology and applied and health sciences.

Subject	G1 - Design & Technology
What is the subject about?	<ul style="list-style-type: none"> Engage students in designing and prototyping ideas Emphasizes on understanding everyday activities and creating possibilities to make life better. Through the design process, students cultivate creative, critical and reflective thinking to make sense of their learning and to develop related dispositions and skills using graphical means and technology
Syllabus	<p>The content to be covered are organised into two sections: (i) Design and (ii) Technology. The syllabus aims to allow students to:</p> <ul style="list-style-type: none"> develop design-related dispositions acquire design techniques and strategies consolidate a sound working knowledge of technology (materials, workshop processes, mechanisms and electronics)
Assessment (How will the subject be tested?)	<p>Paper 1 (30%, 1h) Written Paper (50 marks) Q1-3 (18 marks): Design Q4-5 (32 marks): Application</p> <p>Paper 2 (70%, 20 weeks) Coursework Involves design journal (real-time document that reflects the candidate's attempt at managing his or her personal design process which includes mock-up(s) and a prototype) and presentation boards</p>
Considerations to make before deciding to take the subject.	<p>Ask yourself...</p> <ul style="list-style-type: none"> Am I a creative person? Do I like designing? Can I sketch and draw 3-Dimensional Objects? Do I like process based and skills based curriculum? <ul style="list-style-type: none"> Process skills in gathering relevant information, analyzing it and applying it effective in design solution Practical skills in drawing and designing? Practical skills in testing and making of design? Am I an effective person in learning and usage of ICT tools/skills for coursework applications. Do I like project work? <ul style="list-style-type: none"> Project management. An organized person able to meet timeline?
Progression opportunities	<p>Benefits for progressions to ITE & Polytechnics: Coursework exposure equips students to handle the modular structure of ITE and Polytechnic courses, resembling coursework in each module.</p> <p>Related Polytechnic Courses:</p> <ul style="list-style-type: none"> Engineering, IT, Built Environment & Applied & Health Science Humanities, Media & Design

Subject	G1 - Nutrition and Food Science
What is the subject about?	<ul style="list-style-type: none"> • Lead a healthier lifestyle proactively through proper diet and nutrition. • Advocate sustainable food consumption by planning and making appropriate food choices. • Apply principles of culinary science creatively in food preparation and cooking.
Syllabus	<ul style="list-style-type: none"> • Nutrition and Health – Nutrients / Diet and Health • Food Literacy and Consumer Literacy - Food Management / Smart Consumer • Food Science - Food Safety / The Science in Food Preparation / Reactions in Food During Preparation / Cooking Sensory Evaluation of Food
Assessment (How will the subject be tested?)	<p>Paper 1 (40%, 1h 30min) - Written Paper (80m) Section A: 16 marks (multiple choice questions) Section B: 32 marks (short-answer-type questions) Section C: 32 marks (structured type questions)</p> <p>Paper 2 (60%, max. 35h) - Coursework Involves background study, decision making, exploration, planning, execution and evaluation (to present in presentation format, max. 35 slides)</p>
Considerations to make before deciding to take the subject.	<p>Ask yourself...</p> <ul style="list-style-type: none"> • Do I have a passion for culinary skills & nutrition & food science? • Do I like process based and skills-based curriculum? • Process skills in research development, analysis and decision making to develop ideas towards a solution for the food task? • Planning and execution of designed solution of food task using appropriate cooking techniques and methods? • Am I an effective person in the learning and usage of Microsoft Word & to type content within time limit? e.g. Coursework report writing for express O level is approximately 16 pages. • Am I an analytical person and able to use data effectively to design the food task? • Am I a organized person able to meet timeline? • Am I ready to cook 3-4 dishes within 2 hrs, including wash up & plating?
Progression opportunities	<p>Benefits for progressions to ITE & Polytechnics: Coursework exposure equips students to handle the modular structure of ITE and Polytechnic courses, resembling coursework in each module.</p> <p>Related Polytechnic Courses:</p> <ul style="list-style-type: none"> • Food Science and Technology, Food Science and Nutrition, Food, Nutrition and Culinary Science, Applied & Health Science

FAQ

Q	Question	Applicable for		
		G3	G2	G1
	Operational			
1.	<p>When can my child select his/her subjects?</p> <p>The subject combination exercise will commence from 23 October 2025, 12.30pm to 28 October 2025, 5pm.</p> <p>More information will be provided to you and your child in October during the last week of school.</p>	Y	Y	Y
2.	<p>When can my child submit his/her appeal? What if my child does not get the choice combination?</p> <p>Students can submit their appeals in hard copy to the general office from 6 November 2025, 12 noon (release of subject allocation – online) to 7 November 2025, 5pm.</p>	Y	Y	Y
3.	<p>We are unable to submit an appeal against the allocation outcome, what can we do?</p> <p>Please inform the following key personnels about the situation.</p> <ul style="list-style-type: none"> • kua see hong@schools.gov.sg • wun boon leng@schools.gov.sg • how si si jacqueline@schools.gov.sg <p>Please be reassured an arrangement will be made so that your child is not disadvantaged.</p>	Y	Y	Y
4.	<p>Is it compulsory to participate in the subject combination exercise? What are the benefits for my child?</p> <p>Yes, all secondary 2 students are required to participate in the subject combination exercise to choose the subjects they will read in Upper Secondary.</p> <p>Do note that for student who does not make a selection, the school will allocate the subjects based on student performance and availability of spaces.</p>	Y	Y	Y
5.	<p>Can my child switch combination in the middle of Sec 3?</p> <p>Once the subject combination exercise is completed after the appeal phase, all allocations are final. Students are expected to follow through with their allocated subjects in their upper secondary education. Hence, students and parents should make careful decisions after considering their demonstrated abilities, and interests and aspirations.</p>	Y	Y	Y

Options				
6.	<p>My child is keen to take triple Science, is he allowed to do so?</p> <p>Students who are interested to take all three sciences (Physics, Chemistry, Biology) may consider taking one pure Science and one Combined Science. For example, Chemistry with Science (Physics, Biology).</p>	Y		
7.	<p>My child in G2 is taking G3 Science. Can he take Pure Science at G3 Level standard?</p> <p>G2 students taking Science at G3 level and are interested to pursue science at a higher level are offered Combined Science at O-Level.</p> <p>This recognises students' interest to broaden their understanding of Science while ensuring they can commit to doing well for their other subjects. This increases their chances of progressing to a post-secondary course of their choice.</p>		Y	
Eligibility				
8.	<p>Are students allocated subjects based on their grades or interest? If my child didn't hit subject-specific criteria, can we appeal? What if my child misses the criteria by a few marks? Will the school accept him?</p> <p>Subjects are allocated based on a variety of factors.</p> <p>Students have to meet subject-specific criteria and be assessed to be suitable by teachers. Criteria set are intended to ensure students will be able to manage more demanding subjects at Upper Secondary.</p> <p>Allocation of popular subjects which are over-subscribed is based on order of merit.</p> <p>Subjects to be offered are contingent on availability of resources and demand.</p> <p>Students who are very interested in a subject but missed the criteria marginally can still opt or appeal for the subject.</p> <p>Ranking order of choices of combination/subjects is one of the factors that will be considered in the allocation.</p>	Y	Y	Y
9.	<p>Is there a quota for the number of students in a subject?</p> <p>The number of places for each subject is dependent on the nature of the subject and resourcing. Most subjects can accommodate up to 40 students. Other subjects like D&T with a higher teacher:student ratio take up to 20 students generally.</p>	Y	Y	Y

School support				
10.	<p>How do teachers help students to understand which subject combination to choose and how it affects their future? How do we decide which subject to choose when my child is not firm about his marks or interest?</p> <p>Students can approach their form teachers, subject teachers or ECG counsellor to find out more about the subject combination available and the advantages of reading a particular subject in their post-secondary education.</p> <p>Our teachers will also be able to share with them the demand of the subjects and provide advice to our students based on their current academic performance to help them make more informed choices.</p> <p>By sharing their interest and future career aspiration with our teachers, teachers are better able to guide our students to relevant resources where they can find out more about the course and career they are interested in, and the pre-requisites.</p>	Y	Y	Y
11.	<p>How can I help my child know more about her interest?</p> <p>It is recommended that parents have regular conversations with your child to find out their interest and aspirations. You can research post-secondary courses together with your child by visiting the websites of Institutes of Higher Learning and the SkillsFuture portal.</p>	Y	Y	Y
12	<p>My child wants to be a vet. What subjects should I do?</p> <p>Your child may wish to make an appointment with the school's ECG counsellor – Mr Andrew Lum.</p> <p>Monday to Friday 8am to 4pm @ ECG Room (next to Staff Room, Level 2)</p> <p>Email: lum_kah_wai_andrew_a@schools.gov.sg or Appointment booking: https://go.gov.sg/ecgbmss</p>	Y	Y	Y