

EXPRESS



2022

SECONDARY 3

SUBJECT COMBINATIONS

Information Booklet

Updated April 2021

CONTENTS

	Preface	3
Part 1	<u>Secondary 3 Subject Combinations Exercise</u>	
1.1	Process	4
1.2	Secondary 3 Subject Combinations 2022	5
1.3	“How to decide” guide	8
Part 2	<u>Subject information</u>	
2.1	English Language	9
2.2	Mother Tongue Languages	10
2.3	Mathematics	
	2.3.1 Mathematics (O-Level)	15
	2.3.2 Additional Mathematics (O-Level)	17
2.4	Combined Humanities	18
	2.4.1 Social Studies	19
	2.4.2 Geography	20
	2.4.3 History	21
	2.4.4 Literature	22
2.5	Pure Humanities	
	2.5.1 Geography	23
	2.5.2 Literature-In-English	24
2.6	Pure Sciences	
	2.6.1 Biology	25
	2.6.2 Chemistry	26
	2.6.3 Physics	27
2.7	Combined Sciences	
	2.7.1 Science (Physics/Chemistry)	28
	2.7.2 Science (Chemistry/Biology)	29
2.8	Nutrition and Food Science (O-Level)	30
2.9	Music (For selected students only)	31
2.10	Art (For selected students only)	32
2.11	Principles of Accounts (POA) (O-Level)	33
Part 3	<u>Information on Further Education</u>	
3.1	Information on Further Education	34
3.2	Contact Us	34

Preface

At the end of Secondary 2 education all students will be taking part in the Subject Combinations exercise to pursue a particular course from Secondary 3 to Secondary 4.

For the Secondary 2 students, choosing O-Level subjects is a significant phase of their Secondary School education. This information booklet is prepared with the objective of assisting parents and their daughters in making an informed decision on the Secondary 3 subject combination that best suits the child.

The information in this booklet is organised to provide general expectations of each O-Level subject, some post-secondary education pathways as well as possible career options for the various combinations of subjects. The information is provided with the best intentions and is accurate based on current knowledge. However, they do not guarantee future prospects in either education or career.

We hope you will find the information booklet useful. If you need further clarification, you may seek assistance from your daughter/ward's Form Teachers. We also welcome feedback to improve the Information Booklet.

On behalf of our teachers, we wish every student a meaningful educational journey in PLMGS(Sec) and beyond.

PART 1: SECONDARY 3 SUBJECT COMBINATIONS EXERCISE

The Secondary 3 Subject Combinations Exercise is an important step in our students' educational journey. The first two years of education in Secondary School has allowed our students to be exposed to a wide variety of subjects. As the students move towards Secondary 3, they have become better equipped to take on a more specialised course of education. Students have to make a choice on the course which suits them best based on their competency, interest and aspirations. The streaming process as detailed below is put in place to guide students' decisions in choosing their subject combinations.

1.1: Process

- Parents' briefing slides to be shared online in April 2021.
- Using this information booklet, students are advised to have an active discussion with their parents.
- Upon release of the overall results, students are given the Secondary 3 Subject Combinations Option Form. (October 2021)
- A subject combination will be allocated to a student based on the following criteria:
 1. Competency of the student based on her results. **(Merit)**
 2. Demand for the Subject Combination of her choice. **(Choice)**
- Students are to submit the Subject Combinations Options Form to their Form Teachers after collecting their overall results. (October 2021)
- Students will receive the outcome of the streaming exercise. (October-November 2021)

1.2: Secondary 3 Subject Combinations 2022

We understand that there are students who are able to handle a more demanding educational course yet maintain active participation in their CCA, school and other enrichment programmes. To stretch their potential to the fullest, these students will be allowed to offer one additional subject, such as Art and Music in the afternoon.

While the school will always try to cater to the needs and interest of our students, we would like to reiterate that the deciding factors will still be your daughter/ward's overall results and her aptitude towards the subjects chosen. However, constraints in school resources such as manpower and physical facilities are also part of the important factors for consideration in planning and allocating the subjects to our students.

OPTIONS FOR SEC 3 EXPRESS SUBJECT COMBINATIONS IN 2022

	Option 1	Option 2	Option 3	Option 4	Option 5 a/b/c	Option 6 a/b/c
Compulsory Subjects	English Language Mother Tongue/ Higher Mother Tongue	English Language Mother Tongue/ Higher Mother Tongue	English Language Mother Tongue/ Higher Mother Tongue	English Language Mother Tongue/ Higher Mother Tongue	English Language Mother Tongue/ Higher Mother Tongue	English Language Mother Tongue/ Higher Mother Tongue
	Mathematics Additional Mathematics	Mathematics Additional Mathematics	Mathematics Additional Mathematics	Mathematics Additional Mathematics	Mathematics	Mathematics
	Pure Physics Pure Chemistry Pure Biology	Pure Physics Pure Chemistry	Pure Biology Pure Chemistry	Pure Biology Pure Chemistry	Combined Science (Physics, Chemistry)	Combined Science (Biology, Chemistry)
	Social Studies & Elective Geography	Pure Geography Social Studies & Elective Literature	Pure Geography Social Studies & Elective Literature	Pure Literature Social Studies & Elective History	Pure Literature Social Studies & Elective Geography	Pure Literature Social Studies & Elective Geography
Choice within options					a. Additional Mathematics	a. Additional Mathematics
					b. Nutrition & Food Science	b. Nutrition & Food Science
					c. Principles Of Accounts	c. Principles Of Accounts
	8 subjects	8 subjects	8 subjects	8 subjects	7 subjects	7 subjects

Points to note

1. To be eligible for **Option 1**, students should obtain a minimum of 70% for English Language, Science and Mathematics. In addition, the overall average should be 70% and above.
2. To be eligible for **Options 2, 3 and 4**, students should obtain a minimum of 65% for English Language, Science and Mathematics. In addition, the overall average should be 65% and above.
3. To be eligible for **Higher Mother Tongue (HMT)**, students should obtain a minimum of 50% for **HMT** at Sec 2.
4. Art & Music are additional subject* and will be conducted in the afternoon and can be taken with any subject combination.
 - To be eligible for Art, students should obtain a minimum of 65% for Sec 2 Art.
 - To be eligible for Music, students should pass an audition cum interview.
5. Additional Mathematics is offered in **Options 5a and 6a**.
 - To be eligible for Additional Mathematics, students should obtain a minimum of 60% for Sec 2 Mathematics.
6. Students are to seek approval if they wish to exceed the maximum number of subjects stated in any of the options. Approval will be granted on a case-by case basis.

1.3: “How to decide” Guide

What must I consider when choosing the subject combination that suits me best?

As you move on your journey from Lower Secondary to Upper Secondary, you will need to make some important choices. One of them is the subject combination that you would like to take in Secondary 3. This is an important decision because it will affect the next few years of your school life, as well as the future educational and career paths that you would like to take.

Here are a few matters you should consider while deciding on which subject combination suits you best:

Competency in the subject – Competency refers to the ability of an individual to handle the requirements of a subject. Some of us have an innate ability in certain subjects or areas. For example, some find Mathematics a subject easy to manage; they tend to find it quite easy to solve difficult mathematical questions. However, there are some who will take a little longer to grasp a mathematical concept. Competency in the subject is important because it suggests that the students are able to manage difficult topics at the Upper Secondary level.

Interest in the subject – Many students tend to excel in the subjects they are interested in. They go beyond the classroom to read up on information related to the subject. It is important to make sure that it is the subject content that you like and not the teaching style of the subject teacher.

Aspirations – Planning for a career at Secondary 2 is not too far-fetched. Many a time, career prospects are affected by the subject combination you choose now. If you find planning a career difficult, you might want to think about the jobs you definitely do not want to take up and that may help to narrow down your options. Consider your plans for post-secondary education. (Would you like to further your education in junior college, polytechnic or specialised schools?)

Aptitudes and Abilities – Consider the talents and skills you have. For example, are you musically or artistically talented?

PART 2: SUBJECT INFORMATION

The following information on the respective subjects offered in Upper Secondary is extracted from the O- Level syllabi provided by MOE.

2.1 ENGLISH

SCHEME OF ASSESSMENT - EXPRESS

Paper	Type of Paper	Duration	Marks	Weighting
1	Writing	1h 50min	70	35%
2	Comprehension	1h 50min	50	35%
3	Listening	45min	30	10%
4	Oral Communication	20min	30	20%
	Total		180	100%

SUBJECT CONTENT FOR EXPRESS STREAM

Paper 1 Writing	<p><u>Section A</u> (Editing) Candidates identify and edit grammatical errors in a short written text.</p> <p><u>Section B</u> (Situational Writing) Candidates write 250-350 words on a given situation which will involve viewing a visual text.</p> <p><u>Section C</u> (Continuous Writing) Candidates write 350 – 500 words on one of the four topics set.</p>
Paper 2 Comprehension	<p><u>Section A</u> Candidates respond to questions based on Text 1, a visual text.</p> <p><u>Section B</u> Candidates respond to a variety of questions based on Text 2 which is a narrative or a recount.</p> <p><u>Section C</u> Candidates respond to a variety of questions based on Text 3, a non-narrative text, and write an 80-word response to a summary writing task.</p>
Paper 3 Listening	<p><u>Section A</u> Candidates respond to a variety of listening tasks based on a number of audio recordings which the candidates will hear twice.</p> <p><u>Section B</u> Candidates listen to an audio recording and do a simple note-taking exercise. Candidates will hear the recording only once.</p>
Paper 4 Oral Communication	<p>The two parts are thematically linked.</p> <p>Part 1 – Reading Aloud</p> <p>Part 2 – Spoken Interaction</p>

2.2 MOTHER TONGUE LANGUAGE

SCHEME OF ASSESSMENT

Higher Chinese Language (HCL): 高级华文

Examination Syllabus: 考试大纲

Paper	Type of Papers	Marks (Weighting)	Duration
1 试卷一	Composition 作文 (记叙文、说明文、议论文, 包括演讲词) (3 选 1)	60 marks (30%)	2 h
	Letter writing 实用文 (电子邮件、博客、网上论坛等) (2 选 1)	20 marks (10%)	
2 试卷二	Language use, Comprehension and Summary 语文理解与运用： <ul style="list-style-type: none">• 短文填充 (多项选择)• 病句改正 (自由作答)• 阅读理解一 (多项选择 / 自由作答)• 阅读理解二 (自由作答)• 片段缩写 (自由作答)	80 marks (40%)	1h 45min
3 试卷三	Oral 口试 <ul style="list-style-type: none">• 口头报告：根据话题，结合录像短片的内容，呈献一个不超过 2 分钟的口头报告• 讨论：根据学生口头报告的内容跟考生进行讨论	40 marks (20%)	10-15 min

* HCL students will sit for O Level MT Language examination at the end of Sec 3 (Nov).

选修高级华文的学生，于中三年终考 O 水准华文，于中四年终考 O 水准高级华文。

Express Chinese Language (CL): 快捷课程—华文

Examination Syllabus: 考试大纲

Paper	Type of Papers	Marks (Weighting)	Duration
1 试卷一	Composition 作文 (记叙文、议论文和说明文) (3 选 1)	40 marks (20%)	2 h
	Email writing 实用文——电子邮件 (私人电邮、公务电邮) (2 选 1)	20 marks (10%)	
2 试卷二	Language use and Comprehension 语文理解与运用： <ul style="list-style-type: none"> • 综合填空 • 阅读理解一 (多项选择) • 阅读理解二 (自由作答) 	70 marks (35%)	1 h 30 min
3 试卷三	Oral 口试 <ul style="list-style-type: none"> • 朗读短文 • 会话：看录像短片，然后跟主考员进行对话 	10 marks (5%) 40 marks (20%)	10-15 min
	Listening Comprehension 听力理解	20 marks (10%)	30 min

Higher Malay Language (HML) Examination Syllabus

Paper	Type of Papers	Marks (Weighting)	Duration
1	Functional writing	20 marks (10%)	2 h
	Essay	60 marks (30%)	
2	<u>Language use and Comprehension</u> Bahagian A (Ujian klot & Mengedit teks) Bahagian B (Peribahasa) Bahagian C (Kefahaman) Bahagian D (Peringkasan)	80 marks (40%)	1 h 45 min
3	<u>Oral</u> Oral presentation based on video stimulus Conversation based on oral presentation	40 marks (20%)	10-15 min
<p>* HML students will sit for O Level MT Language examination at the end of Sec 3 (Nov). Para pelajar Bahasa Melayu Lanjutan akan menduduki peperiksaan Bahasa Melayu peringkat O pada akhir tahun menengah 3 (Nov).</p>			

Express (ML) Examination Syllabus

Paper	Type of Papers	Marks (Weighting)	Duration
1	Composition	40 marks (20%)	2 h
	E-mail writing	20 marks (10%)	
2	<u>Language use and Comprehension</u> Bahagian A (Imbuan, peribahasa & golongan kata) Bahagian B (Pemahaman 1-2 teks pendek dari bahan autentik) Bahagian C (Pemahaman 2 – 1 teks naratif)	70 marks (35%)	1 h 30 min
3	<u>Oral</u> Reading (10/5%) Conversation topic – Video clips (40/20%)	50 marks (25%)	10-15 min
	Listening Comprehension	20 marks (10%)	30 min

Higher MT – உயர்தமிழ் (HTL)
Examination Syllabus – (தேர்வுக்குரிய கூறுகள்)

தாள் 1	<p>‘அ’ பிரிவு Email/Blog/Forum Writing</p> <p>மின்னஞ்சல்/வலைப்பூ/கருத்துக்களம் எழுதுதல் (2 வினாக்களுள் 1-க்கு விடையளித்தல்)</p>	20 Marks (10%)	2 h
	<p>‘ஆ’ பிரிவு Composition</p> <p>கட்டுரை எழுதுதல் (3 வினாக்களுள் 1-க்கு விடையளித்தல்)</p>	60 marks 30%	
Paper 2 தாள் 2	<p>Language use, Comprehension and Summary மொழிக்கூறுகள், கருத்தறிதல் & சுருக்கிவரைதல்</p> <p>‘அ’ பிரிவு A1 முன்னுணர்வுக் கருத்தறிதல் A2 பிழை திருத்தம்</p> <p>‘ஆ’ பிரிவு B3 சொற்புணர்ச்சி</p> <p>‘இ’ பிரிவு C4 (கருத்தறிதல் 1) சுயவிடை/தெரிவுவிடைக் கருத்தறிதல்/பொருள் எழுதுதல் C5 (கருத்தறிதல் 2) சுயவிடைக் கருத்தறிதல்</p> <p>‘ஈ’ பிரிவு D6 சுருக்கி வரைதல் (கருத்தறிதல் 2-ஐ ஒட்டியது)</p>	80 Marks (40%)	1 h 45 min
Paper 3 3	<p>Oral (வாய்மொழி) (வாய்மொழித் தேர்வு ஒளிக்காட்சி ஊக்கக்கூறையொட்டி அமையும்)</p> <p>1 வாய்மொழிப் படைப்பு 2 கருத்துரையாடல்</p>	40 Marks (20%) 20 Marks (10%) 20 Marks (10%)	10-15 min
<p>* HTL pupils will sit for O Level MT Language Examination at the end of Sec 3. * தமிழ் மாணவர்கள் உயர்நிலை 3-இன் இறுதியில் O நிலைத் தமிழ்மொழித் தேர்வினை எழுதுவர்.</p>			

Express (விரைவு) (TL) Examination Syllabus – (தேர்வுக்குரிய கூறுகள்)

Paper	Type of Papers	Marks (Weighting)	Duration
தாள் 1	<p>'அ' பிரிவு Email Writing</p> <p>மின்னஞ்சல் எழுதுதல் (1.உறவுமுறை 2.தொழில்முறை) (2 வினாக்களுள் 1-க்கு விடையளித்தல்)</p>	20 Marks (10%)	2 h
	<p>'ஆ' பிரிவு Composition</p> <p>கட்டுரை எழுதுதல் (3 வினாக்களுள் 1-க்கு விடையளித்தல்)</p>	40 Marks (20%)	
Paper 2 தாள் 2	<p>Language use, Comprehension மொழிக்கூறுகள் & கருத்தறிதல்</p> <p>'அ' பிரிவு A1 இணைமொழி / மரபுத்தொடர் A2 வாக்கியங்களை முடித்தெழுதுதல் A3 அமைப்புச் சொற்கள்</p> <p>'ஆ' பிரிவு B4 தெரிவுவிடைக் கருத்தறிதல்</p> <p>'இ' பிரிவு C4 சுயவிடைக் கருத்தறிதல் (5 சொற்பொருள் வினாக்கள் உட்பட)</p>	70 Marks (35%)	1 h 30 min
Paper 3 3	<p>Oral & Listening Comprehension (வாய்மொழியும் கேட்டல் கருத்தறிதலும்)</p> <p>பகுதி 1 வாய்மொழி</p> <p>1. வாய்விட்டு வாசித்தல் 2. உரையாடல் (ஒளிக்காட்சி ஊக்கக்கூறையொட்டி அமையும்)</p>	70 Marks (35%)	10-15 min
	<p>பகுதி 2 கேட்டல் கருத்தறிதல்</p>	20 Marks (10%)	30 min

2.3 MATHEMATICS
2.3.1 MATHEMATICS (O-LEVEL)

SCHEME OF ASSESSMENT

Paper	Description	Duration	Marks	Weighting
1	About 25 short questions. All questions are to be answered.	2 hours	80	50%
2	10 to 11 questions of varying marks and lengths. The last question in this paper will focus specifically on applying mathematics to a real-world scenario. All questions are to be answered.	2½ hours	100	50%

SUBJECT CONTENT

Number & Algebra		Geometry & Measurement	
N1	Numbers and their operations	G1	Angles, triangles and polygons
N2	Ratio and proportion	G2	Congruence and similarity
N3	Percentage	G3	Properties of circles
N4	Rate and speed	G4	Pythagoras' theorem and trigonometry
N5	Algebraic expressions and formulae	G5	Mensuration
N6	Functions and graphs	G6	Coordinate geometry
N7	Equations and inequalities	G7	Vectors in two dimensions
N8	Set language and notation	G8	Problems in real-world contexts
N9	Matrices	Statistics & Probability	
N10	Problems in real-world contexts	S1	Data analysis
		S2	Probability

Additional Information

Mathematics is a compulsory subject to be offered at GCE O-Level Examination with the following requisite grades for admission to post-secondary institutions:

- Junior Colleges (JC) / Millennia Institute (MI) Admission – At least a D7 in Mathematics
- Polytechnic Admission – At least a C6 for most courses
- ITE Admission for *Higher Nitec* Courses – At least a D7 for most courses

A student who excels in Mathematics will have a good foundation to offer Mathematics in JC / MI at the H1 level. H1 Mathematics provides a foundation in Mathematics for students who intend to enrol in university courses such as Business, Economics and Social Sciences. Students will develop Mathematical thinking and problem-solving skills. The course covers 'Functions & Graphs', 'Calculus' and 'Probability & Statistics'. A major focus of the syllabus will be the understanding and application of basic concepts and techniques of statistics to equip students with the skills to analyse and interpret data, and make informed decisions.

Advice to students who are weak in Mathematics

It is a requisite to obtain a minimum grade of D7 in Mathematics for admission to JC / MI. Otherwise, a student will only be granted conditional admission to JC / MI and is required to re-sit for the Mathematics Papers in the GCE O-Level Examination in the following year. Should a student fail to obtain the requisite grade, she will be transferred from the JC to MI. Should a student fail to obtain the requisite grade by the 2nd year in MI, she will be asked to leave the MI course.

Hence, it is advisable to focus one's efforts to excel in Mathematics and obtain a distinction for computation towards L1R5 than to struggle with the offer of Mathematics and Additional Mathematics with each subject getting a failing or mediocre grade.

2.3.2 ADDITIONAL MATHEMATICS (O-LEVEL)

SCHEME OF ASSESSMENT

Paper	Description	Duration	Marks	Weighting
1	12 to 14 questions of varying marks and lengths. All questions are to be answered.	2 ¼ hours	90	50%
2	9 to 11 questions of varying marks and lengths. All questions are to be answered.	2 ¼ hours	90	50%

SUBJECT CONTENT

Algebra	Geometry & Trigonometry
A1 Quadratic functions	G1 Trigonometric functions, identities and equations
A2 Equations and inequalities	G2 Coordinate geometry in two dimensions
A3 Surds	G3 Proofs in plane geometry
A4 Polynomials and partial fractions	Calculus
A5 Binomial expansions	C1 Differentiation and integration
A6 Exponential, logarithmic functions	

Additional Information

To offer Additional Mathematics, a student should obtain an overall mark of 60% for Mathematics in Sec 2. A **strong foundation** in lower secondary Mathematics, **especially in algebra**, will help a student to experience a higher chance of excelling in Additional Mathematics.

For admission to JC / MI

- Additional Mathematics is a **not** a compulsory subject to be included in the computation of L1R5.
- As mentioned in 'MATHEMATICS (O-LEVEL)' in the previous section, a student does **not** need to offer Additional Mathematics to take up Mathematics at the **H1 level**.
- A student who wishes to offer Mathematics at the **H2 level** should have taken Additional Mathematics. H2 Mathematics prepares students adequately for university courses including Mathematics, Physics and Engineering where more Mathematics content is required. The course covers 'Functions & Graphs', 'Sequences & Series', 'Vectors', 'Complex Numbers', 'Calculus', 'Permutations & Combinations' and 'Probability & Statistics'. Students will learn to analyse, formulate and solve different types of problems. Students will also learn to work with data and perform statistical analyses.

For admission to Polytechnic

- The offer of Additional Mathematics is **not** compulsory as the offer of Mathematics **OR** Additional Mathematics will provide a foundation in Mathematics-related courses, such as Engineering, Applied Sciences, Health Sciences, Business & Management, Information & Digital Technologies and Media & Design.

2.4 COMBINED HUMANITIES

INTRODUCTION

The Combined Humanities subject is a compulsory subject for the GCE O-Level Examinations. The subject comprises two components: a compulsory Social Studies component and an elective component of Geography or History or Literature.

SUBJECT COMBINATIONS

Students will have to take Paper 1 (Social Studies) with ONE of the elective components.

First Humanities Subject (compulsory)		Second Humanities Subject
Paper 1: Social Studies (compulsory)	Paper 2: Humanities (Geography)	Literature
	Paper 3: Humanities (History)	Literature
	Paper 4: Humanities (Literature)	Geography

**2.4.1 HUMANITIES PAPER 1
(SOCIAL STUDIES) 2272/1, 2273/1, 2274/1**

SCHEME OF ASSESSMENT

Paper	Type of Paper	Section A	Section B	Duration	Marks	Weighting
1	Social Studies	1 Source Based Question with 5 parts	Structured Response Question with 2 parts.	1h 45 min	Section A (35m) Section B (15m)	50%

SUBJECT CONTENT

The Singapore Social Studies Curriculum seeks to prepare our students to be citizens of tomorrow by helping them to better understand the interconnectedness of Singapore and the world they live in. Drawing on aspects of society that are of meaning and interest to students, Social Studies seeks to ignite students' curiosity to inquire into real-world issues that concern our lives, and envisions students as informed, concerned and participative citizens, competent in decision making and impassioned to contribute responsibly to the society and world they live in.

Issue	Topic Overview
Issue 1 Exploring Citizenship and Governance	This Issue invites students to begin exploring what it means to be an informed, concerned and participative citizen. Students will deepen their understanding of their roles as citizens and that of the government. This will serve to develop a stronger sense of civic consciousness, enhancing the roles they play as citizens who are rooted in Singapore with a global outlook.
Issue 2 Living in a Diverse Society	This Issue helps students appreciate diversity and the importance of harmony. Students will develop an understanding of who they are as individuals and accept, respect and celebrate diversity as well as common practices and values in a diverse society. This will heighten students' awareness of the need to develop personal and collective responsibility in promoting and maintaining harmony in a diverse society.
Issue 3 Being Part of a Globalised World	This Issue helps students understand and make meaning of their lives in a globalised world where countries, companies and individuals are interconnected and interdependent. Students will explore the impacts of globalisation in three areas: economy, culture and security. Students will therefore appreciate the complex decision-making process behind responses towards the impacts of globalisation. This understanding will lead them in making well-reasoned and responsible decisions as informed, concerned and participative citizens in a globalised world.

**2.4.2 HUMANITIES PAPER 2
(GEOGRAPHY) 2272/2**

SCHEME OF ASSESSMENT

Paper	Type of Paper	Section A	Section B & C	Duration	Marks	Weighting
2	Humanities (Geography)	<ul style="list-style-type: none"> Geography Investigation Question Structured Question 	<ul style="list-style-type: none"> Structured Question Level of Descriptor Marking Question 	1h 40m	Section A: 13m Section B: 12m Section C: 25m	50 %

SUBJECT CONTENT

The Geography component comprises **Physical Geography, Human Geography and Geographical Skills and Techniques, including Geographical Investigation**. The syllabus provides Students with a holistic understanding of physical-human relationships, and develops their skills in acquiring, communicating and applying geographical knowledge. Students will be required to interpret and critically evaluate geographical data. They will also evaluate the quality of the environment and the future of the human habitat, and thereby enhance their sense of responsibility for the care of the earth and its people.

Geographical Investigation and Structured Question (Section A)	Structured Questions (Section B)	Structured Questions (Section C)
1. Weather and Climate (Fieldwork Component) <ul style="list-style-type: none"> elements of weather types of climate severe weather phenomena 2. Tourism (Fieldwork Component) <ul style="list-style-type: none"> the global tourism industry impact of the growth of tourism managing the impact of tourism 	3. Weather and Climate 4. Tourism (Non-fieldwork)	5. Tectonic Hazards <ul style="list-style-type: none"> plate tectonics phenomena and landforms associated with plate movements impact of and adaptation to earthquakes 6. Geography of Food <ul style="list-style-type: none"> trends in food production and distribution since 1960 factors affecting intensity of food production development in food production

2.4.3 HUMANITIES PAPER 3 (HISTORY) 2273/2

SCHEME OF ASSESSMENT

Paper	Type of Paper	Section A	Section B	Duration	Marks	Weighting
3	Humanities (History)	Source-Based Questions (compulsory) 5 questions. Maximum of 6 sources	Structured-Essay Question Answer 1 out of 2 questions Each question will have 2 sub-parts	1hr 40min	Section A: 30 m Section B: 20 m	50 %

SUBJECT CONTENT

The History component is framed by a meta-narrative of the forces and developments that shaped international history in the 19th and 20th centuries. The focus on Unit 2 explores how European rivalries resulted in two world wars and how the rise of authoritarianism led to the collapse of European hegemony. Unit 3 explores how the USA and Soviet Union rose to dominance at the end of World War II and shaped international history in the development of the Cold War.

Units	Content
The World in Crisis	<ul style="list-style-type: none"> • Impact of World War I in Europe • Source-Based Case Study: <ul style="list-style-type: none"> ○ Stalin's Soviet Union ○ Hitler's Germany • Outbreak of World War II in Europe • Germany's defeat in World War II • Outbreak of World War II in the Asia-Pacific • Japan's Defeat in World War II
Bi-Polarity and the Cold War	<ul style="list-style-type: none"> • Reasons for the Cold War in Europe • Source-Based Case Study: <ul style="list-style-type: none"> ○ The Korean War ○ Cuban Missile Crisis • The end of the Cold War

2.4.4 HUMANITIES PAPER 4 (LITERATURE) 2274/2

SCHEME OF ASSESSMENT

Paper	Type of Paper	Section A	Section B	Duration	Marks	Weighting
4	Humanities (Literature)	Set Text (Novel)	Poetry	1h 40m	50 m	50 %

SUBJECT CONTENT

The Literature Syllabus aims to enable students to discover the joy of reading Literature, appreciate the aesthetic value of language and to explore how the elements of different genres function in literary works to achieve specific effects. Candidates of this paper will be assessed on their ability to demonstrate understanding of the ways in which writers' choices of form, structure and language shape meanings and express their responses clearly and coherently.

Section A: Set Text (25%)	Students will read one set text (novel) and answer one passage-based or one essay question. There will be a choice of one passage-based question and two essay questions given.
Section B: Poetry (25%)	There are no prescribed texts. There will be two questions on unseen poetry. Students will answer one question. There are two parts to each question.

ADDITIONAL INFORMATION

Sec 3	Sec 4
<ul style="list-style-type: none"> Set Text (70% completed) Components of Poetry 	<ul style="list-style-type: none"> Set Text (100% completed) Components of Poetry

- Both the Express and Normal (Academic) students may do the same texts.
- However, assessment is in the form of scaffolded questions for the Normal (Academic) Students.
- Over 3 years, Normal (A) Students will be prepared for one set text (novel) and the Unseen component.

2.5 PURE HUMANITIES
2.5.1 GEOGRAPHY 2236/1 and 2236/2

SCHEME OF ASSESSMENT

Paper	Type of Paper	Duration	Marks	Weighting
1	<ul style="list-style-type: none"> Geographical Investigation (Fieldwork) Structured Question Level Descriptor Marking Question 	1h 40min	50	50%
2	<ul style="list-style-type: none"> Structured Questions Level of Descriptor Marking Question 	1h 30min	50	50%

SUBJECT CONTENT

The O-Level Upper Secondary Geography syllabus comprises **Physical Geography, Human Geography and Geographical Skills and Techniques, including Geographical Investigation**. The aims of the syllabus are similar to that of the Humanities Paper 2 (Geography) component. The Physical Geography topics are Plate Tectonics and Resulting Landforms, Weather and Climate, and Coasts. The Human Geography topics are Geography of Food, Tourism and Health and Disease.

(Paper 1) Geographical Investigation and Structured Question	(Paper 2) Structured Questions
<p>Section A One structured question on Geographical Investigation will be set based on following topics.</p> <p>1. Coasts (Fieldwork Component)</p> <ul style="list-style-type: none"> coastal processes and their resultant landforms and features coastal management <p>2. Tourism (Fieldwork Component)</p> <ul style="list-style-type: none"> the global tourism industry impact of the growth of tourism managing the impact of tourism 	<p>Section A Answer one question out of two structured questions.</p> <p>- can be a combination of 2 topics in one of the two structured questions.</p> <p>1. Tectonic Hazards</p> <ul style="list-style-type: none"> plate tectonics and phenomena and landforms associated with plate movements impact of and adaptation to earthquakes <p>2. Weather and Climate</p> <ul style="list-style-type: none"> elements of weather types of climate severe weather phenomena
<p>Section B Answer one question out of two questions.</p> <p>- can be a combination of 2 topics in one of the two structured essay questions in section B.</p> <p>1. Coasts</p> <ul style="list-style-type: none"> coastal processes and their resultant landforms and features coastal management <p>2. Tourism</p> <ul style="list-style-type: none"> the global tourism industry impact of the growth of tourism managing the impact of tourism 	<p>Section B Answer one question out of two questions.</p> <p>- can be a combination of 2 topics in one of the two structured questions.</p> <p>3. Geography of Food</p> <ul style="list-style-type: none"> trends in food production and distribution since 1960 factors affecting intensity of food production development in food production <p>4. Health and Disease</p> <ul style="list-style-type: none"> global pattern of health and diseases influences of spread and impact of infectious diseases (malaria/ HIV) management of current and future spread of infectious diseases

2.5.2 LITERATURE-IN-ENGLISH 2065

SCHEME OF ASSESSMENT

Paper	Type of Paper	Section A	Section B	Duration	Marks	Weighting
1	Set Text (Novel) & Unseen Poetry	Set Text (Novel)	Unseen Poetry	1h 40m	50 m	50 %
2	Drama	Set Text		1h 30m	50 m	50%

SUBJECT CONTENT

The Literature Syllabus aims to enable students to discover the joy of reading Literature, appreciate the aesthetic value of language and to explore how the elements of different genres function in literary works to achieve specific effects. Candidates of this paper will be assessed on their ability to demonstrate understanding of the ways in which writers' choices of form, structure and language shape meanings and express their responses clearly and coherently.

Paper 1 Section A (25%) Set Text (Novel)	Students will read one set text (Novel) and answer one passage-based or one essay question. There will be a choice of one passage-based question and two essay questions.
Paper 1 Section B: Unseen Prose (25%)	There are no prescribed texts. There will be two questions on unseen poetry. Students will answer one question. There are two parts to each question.
Paper 2 Drama (50%)	Students will read one set text (Drama). They will answer one compulsory passage-based question and one essay question. One passage-based and two essay questions will be set.

ADDITIONAL INFORMATION

Sec 3	Sec 4
<ul style="list-style-type: none">Set Text (Novel)Components of Unseen Poetry	<ul style="list-style-type: none">Set Text (Drama)Components of Unseen Poetry

2.6 PURE SCIENCES

2.6.1 BIOLOGY 6093

SCHEME OF ASSESSMENT

Paper	Type of Paper	Duration	Marks	Weighting
1	Multiple Choice	1h	40	30%
2	Structured and free-response questions	1h 45min	80	50%
3	Practical	1h 50 min	40	20%

CONTENT STRUCTURE

Themes	Topics
I. Principles of Biology	1.Cell Structure and Organisation
	2.Movement of Substances
	3.Biological Molecules
II. Maintenance and Regulation of Life Processes	4.Nutrition in Humans
	5.Nutrition in Plants
	6.Transport in Flowering Plants
	7.Transport in Humans
	8.Respiration in Humans
	9.Excretion in Humans
	10.Homeostasis
	11.Co-ordination and Response in Humans
III. Continuity of Life	12.Reproduction
	13.Cell Division
	14.Molecular Genetics
	15.Inheritance
IV. Man and his Environment	16.Organisms and their Environment

(This information from SEAB is accurate as of March 2021)

2.6.2 CHEMISTRY 6092

SCHEME OF ASSESSMENT

Paper	Type of Paper	Duration	Marks	Weighting
1	Multiple Choice	1h	40	30%
2	Structured and free-response questions	1h 45min	80	50%
3	Practical	1h 50 min	40	20%

CONTENT STRUCTURE

Section	Topics
I. Experimental Chemistry	1. Experimental Chemistry
II. Atomic Structure and Stoichiometry	2. The Particulate Nature of Matter
	3. Formulae, Stoichiometry and The Mole Concept
III. Chemistry of Reactions	4. Electrolysis
	5. Energy from Chemicals
	6. Chemical Reactions
	7. Acids, Bases and Salts
IV. Periodicity	8. The Periodic Table
	9. Metals
V. Atmosphere	10. Air
VI. Organic Chemistry	11. Organic Chemistry

(This information from SEAB is accurate as of March 2021)

2.6.3 PHYSICS 6091

SCHEME OF ASSESSMENT

Paper	Type of Paper	Duration	Marks	Weighting
1	Multiple Choice	1h	40	30%
2	Structured and free-response questions	1h 45min	80	50%
3	Practical	1h 50 min	40	20%

CONTENT STRUCTURE

Section	Topics
I. Measurement	1. Physical Qualities, Units and Measurement
II. Newtonian Mechanics	2. Kinematics
	3. Dynamics
	4. Mass, Weight and Density
	5. Turning Effect of Forces
	6. Pressure
	7. Energy, Work and Power
	III. Thermal Physics
9. Transfer of Thermal Energy	
10. Temperature	
11. Thermal Properties of Matter	
IV. Waves	12. General Wave Properties
	13. Light
	14. Electromagnetic Spectrum
	15. Sound
V. Electricity and Magnetism	16. Static Electricity
	17. Current Electricity
	18. D.C. Circuits
	19. Practical Electricity
	20. Magnetism
	21. Electromagnetism
22. Electromagnetic Induction	

(This information from SEAB is accurate as of March 2021)

2.7 COMBINED SCIENCES

2.7.1 SCIENCE (PHYSICS/CHEMISTRY) 5076 – EXPRESS

SCHEME OF ASSESSMENT

Paper	Type of Paper	Duration	Marks	Weighting
1	Multiple Choice	1 h	40	20.0%
2 Sc (Physics)	Structured and free-response questions	1h 15min	65	32.5%
3 Sc (Chemistry)	Structured and free-response questions	1h 15min	65	32.5%
5	Practical Test	1h 30min	30	15%

CONTENT STRUCTURE

SC (PHYSICS)

Section	Topics
I. Measurement	1. Physical Qualities, Units and Measurement
II. Newtonian Mechanics	2. Kinematics
	3. Dynamics
	4. Mass, Weight and Density
	5. Turning Effect of Forces
	6. Pressure
	7. Energy, Work and Power
	III. Thermal Physics
9. Transfer of Thermal Energy	
10. Thermal Properties of Matter	
IV. Waves	11. General Wave Properties
	12. Light
	13. Electromagnetic Spectrum
	14. Sound
V. Electricity and Magnetism	15. Static Electricity
	16. Current Electricity
	17. D.C. Circuits
	18. Practical Electricity
	19. Magnetism and Electromagnetism

CONTENT STRUCTURE

SC (CHEMISTRY)

Section	Topics
I. Experimental Chemistry	1. Experimental Chemistry
II. Atomic Structure and Stoichiometry	2. The Particulate Nature of Matter
	3. Formulae, Stoichiometry and The Mole Concept
III. Chemistry of Reactions	4. Energy Changes
	5. Chemical Reactions
	6. Acids, Bases and Salts
IV. Periodicity	7. The Periodic Table
	8. Metals
V. Atmosphere	9. Air
VI. Organic Chemistry	10. Organic Chemistry

(This information from SEAB is accurate as of March 2021)

2.7.2 SCIENCE (CHEMISTRY/BIOLOGY) 5078 - EXPRESS

SCHEME OF ASSESSMENT

Paper	Type of Paper	Duration	Marks	Weighting
1	Multiple Choice	1 h	40	20.0%
3 Sc (Chemistry)	Structured and free-response questions	1h 15min	65	32.5%
4 Sc (Biology)	Structured and free-response questions	1h 15min	65	32.5%
5	Practical Test	1h 30min	30	15%

CONTENT STRUCTURE SC (BIOLOGY)

Section	Topics
I. Principles of Biology	1. Cell Structure and Organisation
	2. Movement of Substances
	3. Biological Molecules
II. Maintenance and Regulation of Life Processes	4. Animal Nutrition
	5. Plant Nutrition
	6. Transport in Flowering Plants
	7. Transport in Humans
	8. Respiration
	9. Co-ordination and Response
III Continuity of Life	10. Reproduction
	11. Molecular Genetics
	12. Inheritance
IV. Man and his Environment	13. Organisms and their Environment

CONTENT STRUCTURE SC (CHEMISTRY)

Section	Topics
I. Experimental Chemistry	1. Experimental Chemistry
II. Atomic Structure and Stoichiometry	2. The Particulate Nature of Matter
	3. Formulae, Stoichiometry and The Mole Concept
III. Chemistry of Reactions	4. Energy Changes
	5. Chemical Reactions
	6. Acids, Bases and Salts
IV. Periodicity	7. The Periodic Table
	8. Metals
V. Atmosphere	9. Air
VI. Organic Chemistry	10. Organic Chemistry

(This information from SEAB is accurate as of March 2021)

2.8 NUTRITION & FOOD SCIENCE

GCE O-LEVEL NUTRITION & FOOD SCIENCE

The aims of the Nutrition & Food Science syllabus are as follows:

- To develop candidates' to lead a healthier lifestyle proactively through proper diet and nutrition
- To develop candidates' to advocate sustainable food consumption by planning and making appropriate food choices
- To develop candidates' to apply principles of culinary science creatively in food preparation and cooking

SCHEME OF ASSESSMENT

Food & Nutrition GCE O-Level

Paper 1: 40% (100m)

Paper 2: 60% (80m)

Paper 1 (2 h)

Written paper. Answer all questions.

Section A: Multiple Choice Questions (15m)

Section B: Short Answer Questions & Data Response Questions (55m)

Section C: Open Ended Questions (30m)

Paper 2: Coursework (60%)

Research	10m
Decision Making	8m
Investigation	
▪ Plan	6m
▪ Conduct	8m
▪ Apply	8m
Planning:	8m
Execution:	
▪ Organisation & Management	6m
▪ Manipulation	10m
▪ Product & Presentation	8m
Evaluation:	8m
Sub-total:	80m

Entry Requirements

- At least a pass in Food and Consumer Education in Secondary 2

Demands of the Syllabus

- Good work ethics and time management skill
- Using computer and internet to do coursework

2.9 MUSIC (for selected students only)

GCE O-LEVEL MUSIC

Students will be developed in the following areas during their weekly lessons:

- Critical thinking and musical creativity
- Communicative and interpretative skills in music
- Perception and awareness of musical cultures and traditions, both local and global
- An informed and lifelong appreciation of music

SCHEME OF ASSESSMENT

Component 1: Music Studies (40%)

- 1.5-hour written paper
- Aural perception skills, knowledge and understanding of Western, Jazz, Popular Music and Asian Music genres
- Candidates are expected to use accurate technical vocabulary in all their answers

Component 2: Creating (30%)

- Part 1: Coursework requires candidates to submit one composition in response to one of the six stimuli
- Part 2: Reflection Notes of 400 to 500 words

Component 3: Performing (30%)

- Part 1: Performing a 10-minute recital to perform two contrasting pieces
- Part 2: Reflection Notes of 400 to 500 words

GCE O-Level Higher Music

- Candidates who offer GCE O-Level Higher Music will need to do 1 out of 3 options as follows on top of the GCE O-Level Music components:
 - Research Essay: 1500 – 2000 words of individual inquiry into a subject of candidate's own choice
 - Higher Creating: 6 minutes of music composition portfolio and programme notes
 - Higher Performing: 2 additional musical pieces between 8 and 12 mins followed by 3 mins of viva voce to assess candidates' understanding of the music they have performed

Entry Requirements

- All applicants must sit for a Selection Test
- All applicants must undergo an Interview to evaluate suitability

Demands of the Syllabus

- Study music in greater depth – students must listen to a wide range of music (e.g. listen to CDs and attend concerts etc.)
- Private instrumental / vocal tuition with a tutor outside of school hours (in preparation for the Performing Component)
- Participate in musical activities (e.g. Lunchtime concerts, performing arts CCA etc.)

2.10 ART (for selected students only)

GCE O-LEVEL ART

Students are equipped to apply the following 5 domains during their weekly lessons:

- Gathering and Investigation of Information
- Exploration and Development of Ideas/Concepts
- Aesthetic Qualities
- Selection and Control of Materials and Technical Processes
- Personal Response

SCHEME OF ASSESSMENT

Candidates taking **GCE O-Level Art** will be required to offer the following papers:

Paper	Description	Examination Duration	Weighting
Paper 1	Coursework	Not Applicable	60%
Paper 2	Drawing and Painting	3 hours	40%

Paper 1: Coursework

For the O-Level Coursework (Paper 1), candidates must submit **8 A2 size** preparatory boards (single-sided) together with the final Art work.

Paper 2: Drawing and Painting

The topics for the O-Level Drawing and Painting exam (Paper 2) are released **3 weeks** prior to the Drawing and Painting 3 hour exam. For the O-Level Drawing and Painting exam (Paper 2), candidates must submit 5 A3 size preparatory boards (double-sided) together with the drawing and painting art work they will sit for. The A3 size preparatory boards are to be prepared and ready **before** the day of the drawing and painting exam.

Entry Requirements

- At least 65 marks (overall) for Sec 2 Art and pass a Selection Test
- Right aptitude and attitude for Art
- An inquiring mind, a spirit of experimentation and a passion for the visual arts

Demands of the Syllabus

The Art Syllabus requires students to:

- Spend a minimum of three hours each week outside of curriculum to hone their sensitivity to materials and processes to develop a firm grounding in both the practical and theoretical aspects of Art and Design
- Attend enrichment activities such as workshops, artists' talks and learning journeys to art galleries and museums organised by the school or MOE
- Participate in art-related competitions to sharpen their skills and participate in school or national exhibitions
- Commit to the rigour and demands of the art curriculum and art development process

2.11 PRINCIPLES OF ACCOUNTS (O-LEVEL)

SCHEME OF ASSESSMENT

Paper	Description	Duration	Marks	Weighting
1	Answer 3 to 4 compulsory structured questions.	1 hour	40	40%
2	Answer 4 compulsory structured questions. <ul style="list-style-type: none"> One question requires the preparation of financial statement for a business, which carries 20 marks. A scenario-based question will be part of one of the remaining 3 questions, which carries 7 marks. 	2 hours	60	60%

SUBJECT CONTENT

(1) Accounting and non-accounting information are used to support and facilitate decision-making	(2) Accounting is a language used to represent business activities
1.1 Roles of accounting and accountants	2.1 Types of businesses
1.2 Stakeholders and their decision-making needs	2.2 Forms of business ownerships
1.3 Financial statements analysis	2.3 Elements of financial statements
(3) Accounting is an information system to measure business activities	2.4 Accounting equation
3.1 Accounting theories	2.5 Financial statements
3.2 Accounting information system and accounting cycle	2.6 Income and expenses
3.3 Understanding the double-entry recording system	2.7 Assets
3.4 Internal controls	2.8 Liabilities
	2.9 Equities
	2.10 Correction of Errors

Additional Information

Accounting is an information system based on generally accepted accounting principles. It involves the recording and processing of business transactions, and communicating the information to stakeholders. The accounting information is used to evaluate business performance and facilitate decision-making. What sets the accountancy profession apart is the responsibility to act in the public's interest.

POA is designed to teach age-appropriate and relevant accounting knowledge, skills and values. In addition, students will understand how businesses use accounting and non-accounting information to make decisions. Through the subject, they will acquire transferrable skills that they can apply in their daily lives.

POA forms part of a broad-based education to equip students with strong fundamentals for future learning.

PART 3: INFORMATION

3.1 Junior College (JC), Millennia Institute (MI), Polytechnic Education & Institute of Education (ITE)

Information on Joint Admissions Exercise can be found at <https://www.moe.gov.sg/post-secondary/admissions/jae>

Or simply scan the QR-code on the right with an Internet-enabled mobile device.



3.2 Contact Us

School General Office Tel: 62816606

Our School Website: www.plmgss.moe.edu.sg

Dean IP

<i>Mr Lee Wei Te</i>	<i>lee_wei_te@moe.edu.sg</i>
----------------------	------------------------------

Year Head

<i>Ms Lim Lin Lin</i>	<i>lim_lin_lin@moe.edu.sg</i>
-----------------------	-------------------------------

Year Head (Lower Secondary)

<i>Mr Wong Khai Yu</i>	<i>wong_khai_yu@moe.edu.sg</i>
------------------------	--------------------------------

Sec 2 Year Coordinator

<i>Mdm Nur Zetty</i>	<i>nur_zetty_abd_kadir@moe.edu.sg</i>
----------------------	---------------------------------------

Sec 2 Asst Year Coordinator

<i>Ms Eileen Sin</i>	<i>eileen_sin_yu_ling@moe.edu.sg</i>
----------------------	--------------------------------------

Sec 2 Form Teachers

Class	Teachers	Email
2.1	<i>Mr Lam Cherng Yang</i>	<i>lam_cherng_yang@moe.edu.sg</i>
	<i>Mdm Gita Nair</i>	<i>gita_k_b_nair@moe.edu.sg</i>
2.2	<i>Mr Lee Yen Chai</i>	<i>lee_yen_chai@moe.edu.sg</i>
	<i>Mrs Koh Mei Chin</i>	<i>tang_mei_chin@moe.edu.sg</i>
2.3	<i>Mr Sim Lester</i>	<i>lester_sim_wen_hao@moe.edu.sg</i>
	<i>Ms Chong Chia Hwei</i>	<i>chong_chia_hwei@moe.edu.sg</i>
2.4	<i>Ms Eileen Sin</i>	<i>eileen_sin_yu_ling@moe.edu.sg</i>
	<i>Ms Chen Wenjuan</i>	<i>chen_wenjuan@moe.edu.sg</i>
	<i>Ms Pang Arista</i>	<i>arista_pang_choon_may@moe.edu.sg</i>

2.5	<i>Ms Faezah Al Rashid</i>	faezah_al_rashid@moe.edu.sg
	<i>Mdm Julia Ee</i>	ee_joo_lian_julia@moe.edu.sg